



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



CONGRUENCIA E IDONEIDAD DE INVESTIGADORES DEL NÚCLEO ACADÉMICO BÁSICO Y NÚCLEO ACADÉMICO COMPLEMENTARIO CON LAS LÍNEAS DE GENERACIÓN Y APLICACIÓN DEL CONOCIMIENTO DE LA MAESTRÍA EN NANOTECNOLOGÍA

Personal Académico

El Personal Docente que integra el Núcleo Académico Básico (NAB) está conformado por 23 Doctores con dedicación de tiempo completo al Programa, de los cuales 20 pertenecen al Sistema Nacional de Investigadores (SNI) y 2 de ellos ocupan una plaza de Cátedra de Conacyt.

Colaboran con dedicación parcial en el programa un grupo de 7 investigadores con el grado de doctor y adscritos a la Universidad de Sonora, 6 de ellos pertenecen al SIN,

Se cuenta también con 12 colaboradores externos a la Universidad de Sonora, 8 pertenecientes a una institución nacional, los 8 son miembros del SNI, además colaboran 4 adscritos a universidades del extranjero.

En las tablas 1 y 2 se muestra el desglose del personal docente agrupados por sede, la tabla 3 muestra la estadística del SNI de los investigadores del Núcleo Académico Básico en las sedes URC y la URS. Los colaboradores de tiempo parcial se enlistan en las tablas 4 y 5, los nacionales y los del extranjero.

Tiempo de dedicación al programa de posgrado, indicándose el Nivel en el SNI, así como la(s) Líneas de Generación y aplicación del Conocimiento (**LGAC's**) que desarrollan, las cuales se encuentran debidamente registradas y son las siguientes:

- (1) Bionanotecnología y Nanomedicina;
- (2) Fabricación y Evaluación de Dispositivos; y
- (3) Nanoestructuras y Nanocompositos Funcionalizados



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Tabla 1. Investigadores del Núcleo Académico Básico en la Unidad Regional Centro (Hermosillo)

#	Nombre del Profesor	Nivel en el SNI	LGAC's	Perfil PRODEP
1	Alvarado Rivera Josefina	1	(2)	Catedra
2	Alvarez Ramos Mario Enrique	3	(2) y (3)	Si
3	Barboza Flores Marcelino	3	(1), (2) y (3)	Si
4	Castillo Santos Jesús	2	(2)	Si
5	Berman Mendoza Daintet	1	(2)	Si
6	García Gutiérrez Rafael	2	(2) y (3)	Si
7	Juárez Onofre Josué Elías	1	(1) y (3)	Si
8	Lopez Delgado Rosendo	1	(1) y (2)	Catedra
8	Lucero Acuña Jesús Armando	1	(1) y (3)	Si
10	Meléndrez Amavizca Rodrigo	3	(2)	Si
11	Pedroza Montero Martin	2	(1)	si
12	Sánchez Zeferino Raúl	1	(2)	Si
13	Valdés Cobarrubias Miguel A	2	(1) y (3)	Si
14	Zavala Rivera Paul	1	(1) y (3)	Si



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Tabla 2. Investigadores del Núcleo Académico Básico en la Unidad Regional Sur - URS (Navojoa)

#	Nombre del Profesor	Nivel en el SNI	LGAC's	Perfil PRODEP
15	Almada Ortiz Mario Eduardo	1	(1) y (4)	
16	Balderrama Carmona Ana Paola	1	(1) y (4)	Si
17	Flores Ochoa Rolando		(2)	Si
18	García Ochoa, Juan José	C	(1)	Si
13	Ibarra Hurtado Jaime Manuel	C	(1) y (4)	
20	Mendoza Mexia Alfredo		(2) y (4)	Si
21	Pacheco Contreras Rafael	1	(2)	
22	Romo García Frank	C	(2) y (4)	
23	Yocupicio Villegas Ignacio		(2)	Si

- (1) Bionanotecnología y Nanomedicina;
- (2) Fabricación y Evaluación de Dispositivos; y
- (3) Nanoestructuras y Nanocompositos Funcionalizados
- (4) Nanotecnología Ambiental



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Tabla 3. Estadística de investigadores del Núcleo Académico Básico en las dos sedes (URC y URS)

Nombre del Profesor	Nivel en el SNI	porcentaje
Total de SNI	20	86.95%
SNI I	10	43.47%
SNI II	4	17.39%
SNI III	3	13.04%
SNI I + SNI II	11	60.86 %
SNI II + SNI III	7	30.43%
Candidatos	3	13.04%

Tabla 4. Núcleo Complementario Interno a la Universidad de Sonora

Nombre del Profesor	Nivel en el SNI	LGAC's
Castellanos Moreno Arnulfo		(2) y (3)
Carrillo Torres Roberto Carlos	1	(1) y (3)
Gerardo Gutierrez Heredia	1	(1)
Íñiguez Palomares Ramón A.	1	(1) y (3)
Ortiz Rascón Eduardo	C	(1)
Ramos Carrasco Antonio	1	(1)
Norma Patricia Silva Beltrán	1	(1)



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Tabla 4. Núcleo Complementario Externo a la Universidad de Sonora

(NAC)#	Nombre del Profesor	Institución de Adscripción	Nivel en el SNI	LGAC's
1	Ayón Ballesteros Arturo Alejo	The University of Texas at San Antonio (USA)	2	(2) y (3)
2	Caldiño García Ulises Sinhue	UAM - Iztapalapa	3	(2)
3	Díaz-Barriga Arceo Lucía Graciela	Instituto Politécnico Nacional (IPN)	1	(2) y (3)
4	Guzmán Zamudio Roberto	University of Arizona (USA)	1	(1) y (3)
5	Soto Mercado Ramón	FC-UNAM	1	(1) y (2)
7	Taboada Antelo Pablo	Universidad de Santiago de Compostela (España)	1	(1) y (3)
8	Topete Camacho Antonio	Universidad de Guadalajara	1	(1) y (3)

Del 2016 a la fecha, los investigadores asociados a este programa de maestría que forman parte del NAB han publicado aproximadamente 369 artículos en revistas indizadas. Estos artículos se inscriben, en su gran mayoría, dentro de las LGAC que tiene registrada la MNA, lo cual es indicativo de la congruencia que existe entre las investigaciones que desarrollan los investigadores del posgrado, y las LGAC. Algo similar puede considerarse para el caso de los investigadores del NAC. En ese mismo periodo, los investigadores del NAB han dirigido 40 tesis, todas con temáticas que se inscriben en alguna de las LGAC.

De igual forma, estos investigadores han presentado aproximadamente más de 250 trabajos presentados en eventos académicos nacionales o internacionales. Estos trabajos corresponden a las investigaciones que en conjunto con sus



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



estudiantes asociados realizan, y tienen completa correspondencia con las LGAC registradas por la MNA.

La producción académica en los últimos 5 años, relativa a artículos científicos publicados en revistas indizadas (369) se presenta a continuación en 3 clasificaciones:

- Por línea de investigación
- Por temas prioritarios de interés nacional contenidos en el PRONACE
- Por investigador

En términos de resaltar Congruencia e idoneidad de investigadores del Núcleo Académico Básico.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



LGAC1. BIONANOTECNOLOGÍA Y NANOMEDICINA

1. **Deep photothermal effect induced by stereotactic laser beams in highly scattering media.** Baez-Castillo L., Ortiz-Rascon E., Carrillo-Torres R.C., Bruce N.C., Garduño-Mejía J., Lucero-Acuna A., Álvarez-Ramos M.E. Optics Letters, Volume 46, Issue 17, Pages 4248-4251, 1 September 2021
2. **Synthesis and characterization of a Fe₃O₄@PNIPAM-chitosan nanocomposite and its potential application in vincristine delivery.** Hernández-Téllez C.N., Luque-Alcaraz A.G., Plascencia-Jatomea M., Higuera-Valenzuela H.J., Burgos-Hernández M., García-Flores N., Álvarez-Ramos M.E., Iriqui-Razcon J.L., Hernández-Abril P.A. Polymers, Volume 13, Issue 1, 11 June 2021, Article number 1704
3. **Merging Mie solutions and the radiative transport equation to measure optical properties of scattering particles in optical phantoms,** Baez-Castillo L., Ortiz-Rascón E., Bruce N.C., Garduño-Mejía J., Carrillo-Torres R.C., Álvarez-Ramos M.E. Applied Optics, Volume 59, Issue 33, Pages 10591-10598, 20 November 2020
4. **Micelle encapsulation of ferromagnetic nanoparticles of iron carbide@iron oxide in chitosan as possible nanomedicine agent.** Saucedo-Oloño P.Y., Cardenas-Sanchez H., Argüelles-Pesqueira A.I., Gutierrez-Valenzuela C., Alvarez-Ramos M.E., Lucero-Acuña A., Zavala-Rivera P. Colloids and Interfaces, Volume 4, Issue 2, June 2020, Article number 22 **Biosynthesis of gold and silver nanoparticles using Parkinsonia Florida leaf extract and antimicrobial activity of silver nanoparticles**
5. López-Millán, A., Del Toro-Sánchez, C.L., Ramos-Enríquez, J.R., Carrillo-Torres, R.C., Zavala-Rivera, P., Esquivel, R., Álvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A. Materials Research Express, Volume 6, Issue 9, 5 July 2019, Article number 095025
6. **Comparison of spatially and temporally resolved diffuse transillumination measurement systems for extraction of optical properties of scattering media,** Ortiz-Rascón, E., Bruce, N.C., Garduño-Mejía, J., Carrillo-Torres, R., Hernández-Paredes, J., Álvarez-Ramos, M.E. Applied Optics, Volume 56, Issue 33, 20 November 2017, Pages 9199-9204
7. **Hollow Au-Ag bimetallic nanoparticles with high photothermal stability**



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Carrillo-Torres, R.C., García-Soto, M.J., Morales-Chávez, S.D., Garibay-Escobar, A., Hernández-Paredes, J., Guzmán, R., Barboza-Flores, M., Álvarez-Ramos, M.E., RSC Advances, Volume 6, Issue 47, 2016, Pages 41304-41312

8. **Quantification of the radiosensitization effect of high-Z nanoparticles on photon irradiated cells: Combining Monte Carlo simulations and an analytical approach to the local effect model**, Melo-Bernal W., Chernov G., Barboza-Flores M., Chernov V. *Physics in Medicine and Biology*, Volume 66, Issue 137, July 2021, Article number 135007
9. **Identification of refractory zirconia from catalytic converters in dust: An emerging pollutant in urban environments**. Meza-Figueroa D., Pedroza-Montero M., Barboza-Flores M., Navarro-Espinoza S., Ruiz-Torres R., Robles-Morúa A., Romero F., Schiavo B., González-Grijalva B., Acosta-Elias M., Mendoza-Córdova A. *Science of the Total Environment*, Volume 76015, March 2021, Article number 143384
10. **Metal bioaccessibility, particle size distribution and polydispersity of playground dust in synthetic lysosomal fluids**, Meza-Figueroa, D., Barboza-Flores, M., Romero, F.M., Acosta-Elias, M., Hernández-Mendiola, E., Maldonado-Escalante, F., Pérez-Segura, E., González-Grijalva, B., Meza-Montenegro, M., García-Rico, L., Navarro-Espinoza, S., Santacruz-Gómez, K., Gallego-Hernández, A., Pedroza-Montero, M. *Science of the Total Environment*, Volume 713, 15 April 2020, Article number 136481
11. **Improved Method of Study on the Photothermal Effect of Plasmonic Nanoparticles by Dynamic IR Thermography**, Chernov, G., Ibarra-Valdez, J.L., Carrillo-Torres, R.C., Medrano-Pesqueira, T.C., Chernov, V., Barboza-Flores, M. *Plasmonics*, Volume 14, Issue 4, 15 August 2019, Pages 935-944
12. **Nanoscale dose deposition in cell structures under X-ray irradiation treatment assisted with nanoparticles: An analytical approach to the relative biological effectiveness**, Melo-Bernal, W., Chernov, V., Chernov, G., Barboza-Flores, M. *Applied Radiation and Isotopes*, Volume 138, August 2018, Pages 50-55
13. **Magnetite Nanoparticles Functionalized with Vitamin E Analogues: Anticancer Effects**, Angulo-Molina, A., Méndez-Rojas, M.A., Palacios-Hernández, T., Contreras-López, O.E., Hirata-Flores, G.A., Flores, J.C., Flores, K.L., Velázquez, C., Robles-Zepeda, R., Silva-Campa, E., Sarabia,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



A., Barboza-Flores, M., Pedroza-Montero, M., Reyes-Leyva, J.R., Hernández, J. *Materials Today: Proceedings*, Volume 3, Issue 2, 2016, Pages 703-707

14. **Carboxylated nanodiamond and re-oxygenation process of gamma irradiated red blood cells.** Acosta-Elías, M., Sarabia-Sainz, A., Pedroso-Santana, S., Silva-Campa, E., Santacruz-Gomez, K., Angulo-Molina, A., Castaneda, B., Soto-Puebla, D., Barboza-Flores, M., Melendrez, R., Álvarez-García, S., Pedroza-Montero, M. *Physica Status Solidi (A) Applications and Materials Science*, Volume 212, Issue 11, 2015, Pages 2437-2444
15. **Molecular recognition of glyconanoparticles by RCA and E. coli K88 - Designing transports for targeted therapy.** Gallegos-Tabanico, A., Sarabia-Sainz, J.A., Sarabia-Sainz, H.M., Carrillo-Torres, R.C., Guzman-Partida, A.M., Monfort, G.R.-C., Silva-Campa, E., Burgara-Estrella, A.J., Angulo-Molina, A., Acosta-Elias, M., Pedroza-Montero, M., Vazquez-Moreno, L. *Acta Biochimica Polonica*, Volume 64, Issue 4, 2017, Pages 671-677, **Zinc oxide nanoparticles induce an adverse effect on blood glucose levels depending on the dose and route of administration in healthy and diabetic rats**, Virgen-Ortiz A., Apolinar-Irribé A., Díaz-Reval I., Parra-Delgado H., Limón-Miranda S., Sánchez-Pastor E.A., Castro-Sánchez L., Castillo S.J., Dagnino-Acosta A., Bonales-Alatorre E., Rodríguez-Hernández A., *Nanomaterials*, Volume 10, Issue 10, Pages 1-10, October 2020, Article number 2005,
17. **Direct XPS analysis of biological materials for environmental purposes** García-Bedoya, D., Ramírez-Rodríguez, L.P., Mendivil-Reynoso, T., Quiroz-Castillo, J.M., De La Mora-Covarrubias, A., Castillo, S.J., *Applied Ecology and Environmental Research* Volume 15, Issue 1, 2017, Pages 501-509
18. **A finite Hopfield neural network model for the oxygenation of hemoglobin**, Castellanos-Jaramillo, J.-M., Castellanos-Moreno, A., Corella-Madueño, A. *Physica Scripta*, Volume 95, Issue 7, July 2020, Article number 075002
19. **Silver Nanoparticles Synthesized with *Rumex hymenosepalus*: A Strategy to Combat Early Mortality Syndrome (EMS) in a Cultivated White Shrimp.** Alvarez-Cirerol, F.J., López-Torres, M.A., Rodríguez-León, E., Rodríguez-Beas, C., Martínez-Higuera, A., Lara, H.H., Vergara, S., Arellano-Jimenez, M.J., Larios-Rodríguez, E., Martínez-Porchas, M., De-La-



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Re-Vega, E., Iniguez-Palomares, R.A., Journal of Nanomaterials, Volume 2019, 2019, Article number 8214675

20. **Silver nanoparticles synthesized with *Rumex hymenosepalus* extracts: effective broad-spectrum microbicidal agents and cytotoxicity study.** Rodríguez-León, E., Íñiguez-Palomares, R.A., Navarro, R.E., Rodríguez-Beas, C., Larios-Rodríguez, E., Alvarez-Cirerol, F.J., Íñiguez-Palomares, C., Ramírez-Saldaña, M., Hernández Martínez, J., Martínez-Higuera, A., Galván-Moroyoqui, J.M., Martínez-Soto, J.M.. Artificial Cells, Nanomedicine and Biotechnology, Volume 46, Issue 6, 18 August 2018, Pages 1194-1206
21. **Nanocarriers as drug delivery systems for propolis: A therapeutic approach,** Mendez-Pfeiffer P., Juárez J., Hernandez J., Taboada P., Virués C., Valencia D., Velazquez C., Journal of Drug Delivery Science and Technology, Volume 6, 5 October 2021, Article number 102762
22. **Effect of *Yucca baccata* butanolic extract on the shelf life of chicken and development of an antimicrobial packaging for beef**
23. Gutiérrez-García G.J., Quintana-Romero L.A., Morales-Figueroa G.G., Esparza-Romero J., Pérez-Morales R., López-Mata M.A., Juárez J., Sánchez-Escalante J.J., Peralta E., Quihui-Cota L., Soto-Valdez H., Food Control, Volume 12, 7 September 2021, Article number 108142
24. **Microfluidics-assisted conjugation of chitosan-coated polymeric nanoparticles with antibodies: Significance in drug release, uptake, and cytotoxicity in breast cancer cells,** Escareño N., Hassan N., Kogan M.J., Juárez J., Topete A., Daneri-Navarro A., Journal of Colloid and Interface Science, Volume 591, Pages 440-450, June 2021
25. **Recovery of phytochemical from three safflower (*Carthamus tinctorius* L.) by-products: Antioxidant properties, protective effect of human erythrocytes and profile by UPLC-DAD-MS,** Del-Toro-Sánchez C.L., Rodríguez-Félix F., Cinco-Moroyoqui F.J., Juárez J., Ruiz-Cruz S., Wong-Corral F.J., Borboa-Flores J., Castro-Enríquez D.D., Barreras-Urbina C.G., Tapia-Hernández J.A., Journal of Food Processing and Preservation, 2021
26. **Biodegradable photoresponsive nanoparticles for chemo-, photothermal- and photodynamic therapy of ovarian cancer,** Sánchez-Ramírez D.R., Domínguez-Ríos R., Juárez J., Valdés M., Hassan N., Quintero-Ramos A., del Toro-Arreola A., Barbosa S., Taboada P., Topete A.,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Daneri-Navarro A. Materials Science and Engineering C, Volume 11, 6 November 2020, Article number 111196.

27. **Stabilization of betalains by encapsulation—a review**, Castro-Enríquez, D.D., Montañó-Leyva, B., Del Toro-Sánchez, C.L., Juárez-Onofre, J.E., Carvajal-Millan, E., Burruel-Ibarra, S.E., Tapia-Hernández, J.A., Barreras-Urbina, C.G., Rodríguez-Félix, F. *Journal of Food Science and Technology*, Volume 57, Issue 5, 1 May 2020, Pages 1587-1600
28. **Effect of ultrasound on physicochemical and foaming properties of a protein concentrate from giant squid (*Dosidicus gigas*) mantle**, Arredondo-Parada, I., Torres-Arreola, W., Suárez-Jiménez, G.M., Ramírez-Suárez, J.C., Juárez-Onofre, J.E., Rodríguez-Félix, F., Marquez-Rios, E. *LWT* Volume 121, March 2020, Article number 108954
29. **Effect of ultrafiltration of Pitaya extract (*Stenocereus thurberi*) on its phytochemical content, antioxidant capacity, and UPLC-DAD-MS profile**, Castro-Enríquez, D.D., Montañó-Leyva, B., Del Toro-Sánchez, C.L., Juárez-Onofre, J.E., Carvajal-Millán, E., López-Ahumada, G.A., Barreras-Urbina, C.G., Tapia-Hernández, J.A., Rodríguez-Félix, F. *Molecules*, Volume 25, Issue 2, 2020, Article number 281
30. **Improving cell penetration of gold nanorods by using an amphipathic arginine rich peptide**, Riveros, A.L., Eggeling, C., Riquelme, S., Adura, C., López-Iglesias, C., Guzmán, F., Araya, E., Almada, M., Juárez, J., Valdez, M.A., Fuentesvilla, I.A., López, O., Kogan, M.J., *International Journal of Nanomedicine*, Volume 15, 2020, Pages 1837-1851
31. **Antioxidant, antihemolysis, and retinoprotective potentials of bioactive lipidic compounds from wild shrimp (*Litopenaeus stylirostris*) muscle**, García-Romo, J.S., Noguera-Artiaga, L., Gálvez-Iriqui, A.C., Hernández-Zazueta, M.S., Valenzuela-Cota, D.F., González-Vega, R.I., Plascencia-Jatomea, M., Burboa-Zazueta, M.G., Sandoval-Petris, E., Robles-Sánchez, R.M., Juárez, J., Hernández-Martínez, J., Santacruz-Ortega, H.D.C., Burgos-Hernández, A. *CYTA - Journal of Food*, Volume 18, Issue 1, 1 January 2020, Pages 153-163
32. **Preparation and Characterization of Quercetin-Loaded Zein Nanoparticles by Electrospraying and Study of In Vitro Bioavailability**, Rodríguez-Félix, F., Del-Toro-Sánchez, C.L., Javier Cinco-Moroyoqui, F., Juárez, J., Ruiz-Cruz, S., López-Ahumada, G.A., Carvajal-Millan, E., Castro-



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Enríquez, D.D., Barreras-Urbina, C.G., Tapia-Hernández, J.A., Journal of Food Science, Volume 84, Issue 10, 1 October 2019, Pages 2883-2897

33. **Prolamins from cereal by-products: Classification, extraction, characterization and its applications in micro- and nanofabrication**, Tapia-Hernández, J.A., Del-Toro-Sánchez, C.L., Cinco-Moroyoqui, F.J., Juárez-Onofre, J.E., Ruiz-Cruz, S., Carvajal-Millan, E., López-Ahumada, G.A., Castro-Enríquez, D.D., Barreras-Urbina, C.G., Rodríguez-Felix, F., Trends in Food Science and Technology. Volume 90, August 2019, Pages 111-132
34. **Cisplatin-loaded PLGA nanoparticles for HER2 targeted ovarian cancer therapy**, Domínguez-Ríos, R., Sánchez-Ramírez, D.R., Ruiz-Saray, K., Ocegüera-Basurto, P.E., Almada, M., Juárez, J., Zepeda-Moreno, A., del Toro-Arreola, A., Topete, A., Daneri-Navarro, A., Colloids and Surfaces B: Biointerfaces, Volume 178, 1 June 2019, Pages 199-207
35. **siRNA silencing by chemically modified biopolymeric nanovectors**, Villar-Alvarez, E., Leal, B.H., Martínez-González, R., Pardo, A., Al-Qadi, S., Juárez, J., Váldez, M.A., Cambón, A., Barbosa, S., Taboada, P. ACS Omega, Volume 4, Issue 2, 21 February 2019, Pages 3904-3921
36. **Hybrid folic acid-conjugated gold nanorods-loaded human serum albumin nanoparticles for simultaneous photothermal and chemotherapeutic therapy**, Encinas-Basurto, D., Ibarra, J., Juárez, J., Pardo, A., Barbosa, S., Taboada, P., Valdez, M.A., Materials Science and Engineering C, Volume 91, 1 October 2018, Pages 669-678
37. **Zein-polysaccharide nanoparticles as matrices for antioxidant compounds: A strategy for prevention of chronic degenerative diseases**, Tapia-Hernández, J.A., Rodríguez-Felix, F., Juárez-Onofre, J.E., Ruiz-Cruz, S., Robles-García, M.A., Borboa-Flores, J., Wong-Corral, F.J., Cinco-Moroyoqui, F.J., Castro-Enríquez, D.D., Del-Toro-Sánchez, C.L., Food Research International, Volume 111, September 2018, Pages 451-471
38. **Physicochemical properties of novel pectin/Aloe gel membranes**, López-Mata, M.A., Gastelum-Cabrera, M., Valbuena-Gregorio, E., Zamudio-Flores, P.B., Burruel-Ibarra, S.E., Morales-Figueroa, G.G., Quihui-Cota, L., Juárez-Onofre, J.E. Iranian Polymer Journal, Volume 27, Issue 8, 1 August 2018, Pages 545-553



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



39. **Targeted drug delivery via human epidermal growth factor receptor for sustained release of allyl isothiocyanate**, Encinas-Basurto, D., Juárez, J., Valdez, M.A., Burboa, M.G., Barbosa, S., Taboada, P., Current Topics in Medicinal Chemistry, Volume 18, Issue 14, 2018, Pages 1252-1260
40. **Co-encapsulation of magnetic nanoparticles and cisplatin within biocompatible polymers as multifunctional nanoplatforms: Synthesis, characterization, and in vitro assays**, Ibarra, J., Encinas, D., Blanco, M., Barbosa, S., Taboada, P., Juárez, J., Valdez, M.A., Materials Research Express, Volume 5, Issue 1, January 2018, Article number 015023
41. **Microencapsulation of carvacrol using Pectin/Aloe-gel as a novel wound dressing films**, Gómez-Rodríguez, G.-H., López-Mata, M.A., Valbuena-Gregorio, E., Melchor, R.G.V., Campos-García, J.C., Silva-Beltrán, N.P., Quihui-Cota, L., Ruiz-Cruz, S., Juárez, J., Current Topics in Medicinal Chemistry, Volume 18, Issue 14, 2018, Pages 1261-1268
42. **Peptide functionalized magneto-plasmonic nanoparticles obtained by microfluidics for inhibition of β -amyloid aggregation**, Hassan, N., Cordero, M.L., Sierpe, R., Almada, M., Juárez, J., Valdez, M., Riveros, A., Vargas, E., Abou-Hassan, A., Ruso, J.M., Kogan, M.J., Journal of Materials Chemistry B, Volume 6, Issue 31, 2018, Pages 5091-5099
43. **Photothermal conversion efficiency and cytotoxic effect of gold nanorods stabilized with chitosan, alginate and poly(vinyl alcohol)m** Almada, M., Leal-Martínez, B.H., Hassan, N., Kogan, M.J., Burboa, M.G., Topete, A., Valdez, M.A., Juárez, J. Materials Science and Engineering C Volume 77, 1 August 2017, Pages 583-593
44. **Poly(lactic-co-glycolic acid) nanoparticles for sustained release of allyl isothiocyanate: characterization, in vitro release and biological activity**, Encinas-Basurto, D., Ibarra, J., Juárez, J., Burboa, M.G., Barbosa, S., Taboada, P., Troncoso-Rojas, R., Valdez, M.A. Journal of Microencapsulation, Volume 34, Issue 3, 3 April 2017, Pages 231-242
45. **Oligomers, protofibrils and amyloid fibrils from recombinant human lysozyme (rHL): Fibrillation process and cytotoxicity evaluation for ARPE-19 cell line**, Ruiz, E.D., Almada, M., Burboa, M.G., Taboada, P., Mosquera, V., Valdez, M.A., Juárez, J., Colloids and Surfaces B: Biointerfaces, Volume 126, February 01, 2015, Pages 335-343



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



46. **Synthesis and characterization of a bioconjugate based on oleic acid and L-cysteine**, Vizcarra-Pacheco M., Ley-Flores M., Matrecitos-Burrueal A.M., López-Esparza R., Fernández-Quiroz D., Lucero-Acuña A., Zavala-Rivera P. *Polymers*, Volume 13, Issue 11, June-1 2021, Article number 1791
47. **Temperature stimuli-responsive nanoparticles from chitosan-graft-poly(N-vinylcaprolactam) as a drug delivery system**, Fernández-Quiroz, D., Loya-Duarte, J., Silva-Campa, E., Argüelles-Monal, W., Sarabia-Sainz, A.-Í., Lucero-Acuña, A., del Castillo-Castro, T., San Román, J., Lizardi-Mendoza, J., Burgara-Estrella, A.J., Castaneda, B., Soto-Puebla, D., Pedroza-Montero, M., *Journal of Applied Polymer Science*, Volume 136, Issue 32, 20 August 2019, Article number 47831
48. **Mathematical modeling and parametrical analysis of the temperature dependency of control drug release from biodegradable nanoparticles** Lucero-Acuña, A., Gutiérrez-Valenzuela, C.A., Esquivel, R., Guzmán-Zamudio, R.. *RSC Advances*, Volume 9, Issue 16, 2019, Pages 8728-8739
49. **Differential response of BEAS-2B and H-441 cells to methylene blue photoactivation**, Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Bojang, P., Esquivel, R., Hernández, P., Ramos, K.S., Guzmán-Zamudio, R., Lucero-Acuña, A., *Anticancer Research*, Volume 39, Issue 7, 2019, Pages 3739-3744
50. **Evaluation of a combined emulsion process to encapsulate methylene blue into PLGA nanoparticles**, Gutiérrez-Valenzuela, C.A., Esquivel, R., Guerrero-Germán, P., Zavala-Rivera, P., Rodríguez-Figueroa, J.C., Guzmán-Z, R., Lucero-Acuña, A., *RSC Advances*, Volume 8, Issue 1, 2018, Pages 414-422
51. **Efficient disruption of Escherichia coli for plasmid DNA recovery in a bead mill**, Padilla-Zamudio, A., Lucero-Acuña, J.A., Guerrero-Germán, P., Ortega-López, J., Tejeda-Mansir, A., *Applied Sciences*, Volume 8, Issue 1, 26 December 2017, Article number 30
52. **Advances in the study of the multifunctional bioactivity of kefir**, Rodríguez-Figueroa, J.C., Noriega-Rodríguez, J.A., Lucero-Acuña, A., *Interciencia*, Volume 42, Issue 6, June 2017, Pages 347-354
53. **Folate functionalized PLGA nanoparticles loaded with plasmid pVAX1-NH36: Mathematical analysis of release**, Gutiérrez-Valenzuela, C.A.,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Guerrero-Germán, P., Tejeda-Mansir, A., Esquivel, R., Guzmán-Z, R., Lucero-Acuña, A. Applied Sciences, Volume 6, Issue 12, 2016, Article number 364

54. **Nanoparticle encapsulation and controlled release of a hydrophobic kinase inhibitor: Three stage mathematical modeling and parametric analysis**, Lucero-Acuña, A., Guzmán, R., International Journal of Pharmaceutics, Volume 494, Issue 1, 15 October 2015, Article number 15053, Pages 249-257
55. **A nanodiamond-fluorescein conjugate for cell studies**, Pedroso-Santana, S., Fleitas-Salazar, N., Sarabia-Sainz, A., Silva-Campa, E., Burgara-Estrella, A., Angulo-Molina, A., Melendrez, R., Pedroza-Montero, M., Riera, R., Advances in Natural Sciences: Nanoscience and Nanotechnology, Volume 9, Issue 1, March 2018, Article number 015013
56. **Antioxidant activity of hydrated carboxylated nanodiamonds and its influence on water γ -radiolysis**, Santacruz-Gomez, K., Sarabia-Sainz, A., Acosta-Elias, M., Sarabia-Sainz, M., Janetanakit, W., Khosla, N., Melendrez, R., Montero, M.P., Lal, R., Nanotechnology, Volume 29, Issue 12, 12 February 2018, Article number 125707
57. **Nano alterations of membrane structure on both γ -irradiated and stored human erythrocytes**, Acosta-Eliás, M.A., Burgara-Estrella, A.J., Sarabia-Sainz, J.A.-I., Silva-Campa, E., Angulo-Molina, A., Santacruz-Gómez, K.J., Castaneda, B., Soto-Puebla, D., Ledesma-Osuna, A.I., Melendrez-Amavizca, R., Pedroza-Montero, M., International Journal of Radiation Biology, Volume 93, Issue 12, 2 December 2017, Pages 1306-1311
58. **Carboxylated nanodiamonds inhibit γ -irradiation damage of human red blood cells**, Santacruz-Gomez, K., Silva-Campa, E., Melendrez-Amavizca, R., Teran Arce, F., Mata-Haro, V., Landon, P.B., Zhang, C., Pedroza-Montero, M., Lal, R., Nanoscale, Volume 8, Issue 13, 7 April 2016, Pages 7189-7196
59. **Conformational behavior, topographical features, and antioxidant activity of partly de-esterified arabinoxylans**, De Anda-Flores Y., Carvajal-Millan E., Lizardi-Mendoza J., Rascon-Chu A., Tanori-Cordova J., Martínez-López A.L., Burgara-Estrella A.J., Pedroza-Montero M.R., Polymers, Volume 13, Issue 16, 2 August 2021, Article number 2794



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



60. **Nanoscale Changes on RBC Membrane Induced by Storage and Ionizing Radiation: A Mini-Review**, López-Canizales A.M., Angulo-Molina A., Garibay-Escobar A., Silva-Campa E., Mendez-Rojas M.A., Santacruz-Gómez K., Acosta-Elías M., Castañeda-Medina B., Soto-Puebla D., Álvarez-Bajo O., Burgara-Estrella A., Pedroza-Montero M., *Frontiers in Physiology*, Volume 12, 4 June 2021, Article number 669455
61. **Thermometric characterization of fluorescent nanodiamonds suitable for biomedical applications**, Pedroza-Montero F., Santacruz-Gómez K., Acosta-Elías M., Silva-Campa E., Meza-Figueroa D., Soto-Puebla D., Castañeda B., Urrutia-Bañuelos E., Álvarez-Bajo O., Navarro-Espinoza S., Riera R., Pedroza-Montero M. *Applied Sciences*, Volume 11, Issue 9, 1 May 2021, Article number 4065
62. **Identification of refractory zirconia from catalytic converters in dust: An emerging pollutant in urban environments**, Meza-Figueroa D., Pedroza-Montero M., Barboza-Flores M., Navarro-Espinoza S., Ruiz-Torres R., Robles-Morúa A., Romero F., Schiavo B., González-Grijalva B., Acosta-Eliás M., Mendoza-Córdova A. *Science of the Total Environment*, Volume 760, 15 March 2021, Article number 143384
63. **Effects of untreated drinking water at three indigenous Yaqui towns in Mexico: Insights from a murine model**, Navarro-Espinoza S., Angulo-Molina A., Meza-Figueroa D., López-Cervantes G., Meza-Montenegro M., Armienta A., Soto-Puebla D., Silva-Campa E., Burgara-Estrella A., Álvarez-Bajo O., Pedroza-Montero M. *International Journal of Environmental Research and Public Health*, Volume 18, Issue 2, Pages 1-14, 2 January 2021, Article number 805
64. **Albumin-Albumin/Lactosylated Core-Shell Nanoparticles: Therapy to Treat Hepatocellular Carcinoma for Controlled Delivery of Doxorubicin**, Teran-Saavedra N.G., Sarabia-Sainz J.A., Velázquez-Contreras E.F., Ramos-Clamont Montfort G., Pedroza-Montero M., Vazquez-Moreno L. *Molecules*, Volume 25, Issue 22, 20 November 2020
65. **A magnetic immunoconjugate nanoplatform for easy colorimetric detection of the NS1 protein of dengue virus in infected serum**, Ramírez-Navarro R., Polesnak P., Reyes-Leyva J., Haque U., Vazquez-Chagoyán J.C., Pedroza-Montero M.R., Méndez-Rojas M.A., Angulo-Molina A. *Nanoscale Advances*, Volume 2, Issue 7, Pages 3017-3026, July 2020



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



66. **Combination of ultraviolet light-C and clove essential oil to inactivate *Salmonella Typhimurium* biofilms on stainless steel**, Silva-Espinoza B.A., Palomares-Navarro J.J., Tapia-Rodriguez M.R., Cruz-Valenzuela M.R., González-Aguilar G.A., Silva-Campa E., Pedroza-Montero M., Almeida-Lopes M., Miranda R., Ayala-Zavala J.F., *Journal of Food Safety*, Volume 40, Issue 3, 1 June 2020, Article number e12788
67. **Identification of inhalable rutile and polycyclic aromatic hydrocarbons (PAHs) nanoparticles in the atmospheric dust**, Gallego-Hernández A.L., Meza-Figueroa D., Tanori J., Acosta-Elías M., González-Grijalva B., Maldonado-Escalante J.F., Rochín-Wong S., Soto-Puebla D., Navarro-Espinoza S., Ochoa-Contreras R., Pedroza-Montero M., *Environmental Pollution*, Volume 260, May 2020, Article number 114006
68. **Atomic force microscopy and Raman spectra profile of blood components associated with exposure to cigarette smoking**
69. Burgara-Estrella A.J., Acosta-Elías M.A., Álvarez-Bajo O., Silva-Campa E., Angulo-Molina A., Rodríguez-Hernández I.D.C., Sarabia-Sainz H.M., Escalante-Lugo V.M., Pedroza-Montero M.R., *RSC Advances*, Volume 10, Issue 20, Pages 11971-11981, 24 March 2020
70. **Lactosylated albumin nanoparticles: Potential drug nanovehicles with selective targeting toward an in vitro model of hepatocellular carcinoma**, Teran-Saavedra N.G., Sarabia-Sainz J.A.-I., Silva-Campa E., Burgara-Estrella A.J., Guzmán-Partida A.M., Montfort G.R.-C., Pedroza-Montero M., Vazquez-Moreno L., *Molecules*, Volume 24, Issue 79, April 2019, Article number 1382
71. **Specific capture of glycosylated graphene oxide by an asialoglycoprotein receptor: A strategic approach for liver-targeting** Diaz-Galvez K.R., Teran-Saavedra N.G., Burgara-Estrella A.J., Fernandez-Quiroz D., Silva-Campa E., Acosta-Elias M., Sarabia-Sainz H.M., Pedroza-Montero M.R., Sarabia-Sainz J.A., *RSC Advances*, Volume 9, Issue 18, Pages 9899-9906, 2019
72. **Effect of gamma irradiation doses in the structural and functional properties of mice splenic cells**, Deana Y., Burgara-Estrella A.J., Montalvo-Corral M., Angulo-Molina A., Acosta-Elías M.A., Silva-Campa E., Sarabia-Sainz J.A., Rodríguez-Hernández I.C., Pedroza-Montero M.R., *International Journal of Radiation Biology*, Volume 95, Issue 3, Pages 286-297, 6 December 2018



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



73. **Nanodiamonds and gold nanoparticles to obtain a hybrid nanostructure with potential applications in biomedicine**, Pedroso-Santana S., Fleitas-Salazar N., Sarabia-Sainz A., Silva-Campa E., Angulo-Molina A., Pedroza-Montero M., Riera R. *Nanotechnology*, Volume 29, Issue 4324 August 2018 Article number 435101
74. **Electrospray-assisted fabrication of core-shell arabinoxylan gel particles for insulin and probiotics entrapment**, Paz-Samaniego R., Rascón-Chu A., Brown-Bojorquez F., Carvajal-Millan E., Pedroza-Montero M., Silva-Campa E., Sotelo-Cruz N., López-Franco Y.L., Lizardi-Mendoza J. *Journal of Applied Polymer Science*, Volume 135, Issue 26, 10 July 2018, Article number 46411
75. **Denoising and principal component analysis of amplified raman spectra from red blood cells with added silver nanoparticles**, Ferrer-Galindo L., Sañu-Ginarte A.D., Fleitas-Salazar N., Ferrer-Moreno L.A., Rosas R.A., Pedroza-Montero M., Riera R. *Journal of Nanomaterials*, Volume 2018, 2018, Article number 9417819
76. **Deagglomeration and characterization of detonation nanodiamonds for biomedical applications**, Pedroso-Santana S., Sarabia-Saínez A., Fleitas-Salazar N., Santacruz-Gómez K., Acosta-Elías M., Pedroza-Montero M., Riera R., *Journal of Applied Biomedicine*, Volume 15, Issue 1, Pages 15-21, 1 January 2017
77. **Bioadsorption of copper and zinc with pre-treated and untreated dry biomass of *Escherichia coli***, Terán Valdez, D.P., Monge Amaya, O., Certucha Barragán, M.T., Almendariz Tapia, F.J., Zavala Rivera, P., Sierra Álvarez, Y.R., *Revista Internacional de Contaminacion Ambiental*, Volume 35, Issue Special Issue 3, 2019, Pages 45-55
78. **Effect of freeze-thawing conditions for preparation of chitosan-poly (vinyl alcohol) hydrogels and drug release studies**, Figueroa-Pizano, M.D., Vélaz, I., Peñas, F.J., Zavala-Rivera, P., Rosas-Durazo, A.J., Maldonado-Arce, A.D., Martínez-Barbosa, M.E., *Carbohydrate Polymers*, Volume 195, 1 September 2018, Pages 476-485
79. **Drug release properties of diflunisal from layer-by-layer self-assembled k-carrageenan/chitosan nanocapsules: Effect of deposited layers**, Rochín-Wong, S., Rosas-Durazo, A., Zavala-Rivera, P., Maldonado, A.,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA



Coordinación del Posgrado en Nanotecnología
Departamento de Física

Martínez-Barbosa, M.E., Vélaz, I., Tánori, J. *Polymers*, Volume 10, Issue 7, 10 July 2018, Article number 760

80. **Removal of iron and manganese from a polluted effluent using a chelating resin** Martínez Meza, R.G., Certucha Barragán, M.T., Zavala Rivera, P., Gómez Álvarez, A., Almazán Holguín, L.A. *Revista Internacional de Contaminación Ambiental*, Volume 33, Issue Special Issue 1, 2017, Pages 55-63

LGAC2. FABRICACIÓN Y EVALUACIÓN DE DISPOSITIVOS

1. **Structural and optical modifications of CdS properties in CdS-Au thin films prepared by CBD**, Contreras-Rascón J.I., Díaz-Reyes J., Flores-Pacheco A., Lozada Morales R., Álvarez-Ramos M.E., Balderas-López J.A. *Results in Physics*, Volume 22, March 2021, Article number 103914
2. **Zinc sulfide quantum dots coated with PVP: applications on commercial solar cells**, Melendres-Sánchez J.C., López-Delgado R., Saavedra-Rodríguez G., Carrillo-Torres R.C., Sánchez-Zeferino R., Ayón A., Álvarez-Ramos M.E. *Journal of Materials Science: Materials in Electronics*, Volume 32, Issue 2, Pages 1457-1465, January 2021
3. **Room temperature CO₂ sensing using Au-decorated ZnO nanorods deposited on an optical fiber**, Álvarez-Ramos M.E., Necochea-Chamorro J.I., Carrillo-Torres R.C., Sánchez-Zeferino R. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, Volume 262, December 2020, Article number 114720
4. **Photoluminescent properties of ZnO nanorods films used to detect methanol contamination in tequila**, Maldonado-Arriola J.A., Sánchez-Zeferino R., Álvarez-Ramos M.E. *Sensors and Actuators, A: Physical*, Volume 31, 21 September 2020, Article number 112142
5. **An innovative method to reduce oil waste using a sensor made of recycled material to evaluate engine oil life in automotive workshops**



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Heredia-Cancino J., Carrillo-Torres R., Munguía-Aguilar H., Álvarez-Ramos M. Environmental Science and Pollution Research, Volume 27, Issue 22, Pages 28104- 281121, August 2020

7. **One-pot Synthesized Silicon Quantum Dot Films for Luminescent Solar Concentrators**, Lopez-Delgado R., Cordova-Rubio A.J., Carrillo-Torres R.C., Alvarez-Ramos M.E. Conference Record of the IEEE Photovoltaic Specialists Conference, Volume 2020-June, Pages 2192-2194, 14 June 2020 Article number 9300512
8. **Enhanced photoluminescence effects in nanostructured cubic CdS matrix doped with Cu²⁺ obtained by chemical Bath deposition**, Contreras-Rascón J.I., Díaz-Reyes J., Flores-Pacheco A., Serrano-De La Rosa L.E., Del Ángel-Vicente P., Lozada Morales R., Álvarez Ramos M.E., López-Salazar P. Journal of Materials Research and Technology, Volume 9, Issue 1, Pages 364-3721, January 2020
9. **Cu-doped CdS thin films by chemical bath deposition and ion exchange**
10. Diaz-Grijalva O.I., Berman-Mendoza D., Flores-Pacheco A., López-Delgado R., Ramos-Carrasco A., Alvarez-Ramos M.E. Journal of Materials Science: Materials in Electronics, Volume 31, Issue 2, Pages 1722-17301, January 2020
11. **Fiber optic sensor using ZnO for detection of adulterated tequila with methanol**, Necochea-Chamorro, J.I., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Álvarez-Ramos, M.E. Optical Fiber Technology, Volume 52, November 2019, Article number 101982
12. **Synthesis of Si and CdTe quantum dots and their combined use as down-shifting photoluminescent centers in Si solar cells**, Guerrero-Gonzalez, R., Orona, F.A., Saucedo-Flores, E., Ruelas, R., Pelayo-Ceja, J.E., Lopez-Delgado, R., Cordova-Rubio, A., Álvarez-Ramos, M.E., Ayon, A. Materials for Renewable and Sustainable Energy, Volume 8, Issue 3, 1 September 2019, Article number 14
13. **Silicon solar cell efficiency improvement employing photoluminescent properties of chlorophyll-A** Lopez-Delgado, R., Tostado-Plascencia, M., Álvarez-Ramos, M.E., Ayón, A. Microelectronic Engineering, Volume 216, 15 August 2019, Article number 111047



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



14. **Optimization of ZnO down-shifting photoluminescent quantum dots thin film layers and their influence on single-crystal silicon solar cells**, Flores-Pacheco, A., Alvarez-Ramos, M.E., Zepeda-Galvez, J.A., Ayon, A.A. 2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752928
15. **Anomalous Stokes shift of colloidal quantum dots and their influence on solar cell performance**, Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Alvarez-Ramos, M.E., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A. Microsystem Technologies, 2019
16. **Evaluation of pH-tuned ZnO down-shifting photoluminescent quantum dots and their influence on single-crystal silicon solar cells**, Flores-Pacheco, A., Montes-Bojórquez, J.R., Álvarez-Ramos, M.E., Ayón, A.A. Proceedings of SPIE - The International Society for Optical Engineering Volume 10929, 2019, Article number 109290V
17. **Solar cell efficiency improvement by photon absorption enhancement employing rare earth doped films**, Lopez-Delgado, R., Melendres-Sanchez, J.C., Cordova-Rubio, A.J., Álvarez-Ramos, M.E., Ayon, A. Journal of Physics: Conference Series, Volume 1052, Issue 1, 26 July 2018, Article number 012068
18. **ZnS quantum dots coated with PVP to enhance solar cell performance**
19. Melendres-Sanchez, J.C., Lopez-Delgado, R., Ayon, A., Saavedra-Rodriguez, G., Sánchez-Zeferino, R., Carrillo-Torres R.C., Alvarez-Ramos, M.E. Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4
20. **Influence of photoluminescent Si and ZnO QD multilayered films on solar cell efficiency**, Cordova-Rubio, A., Lopez-Delgado, R., Zazueta-Raynaud, A., Ayon, A., Alvarez-Ramos, M.E. Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4
21. **Characterization of CBD-CdS doped with some rare earths III (Eu^{3+} , Ce^{3+}) as function of synthesis time**, Linares-Avilés, M.E., Contreras-Rascón, J.I., Díaz-Reyes, J., Martínez-Juárez, J., Castillo-Ojeda, R.S., Galván-Arellano, M., Balderas-Lopez, J.A., Alvarez-Ramos, M. Materials Research, Volume 21, Issue 2, 2018, Article number e20170626



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



22. **Solar cell efficiency improvement employing down-shifting silicon quantum dots**, Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos-Carrasco, A., Pelayo, J.E., Berman-Mendoza, D., Álvarez-Ramos, M.E., Ayon, A. *Microsystem Technologies*, Volume 24, Issue 1, 1 January 2018, Pages 495-502
23. **Enhanced conversion efficiency in Si solar cells employing photoluminescent down-shifting CdSe/CdS core/shell quantum dots**, Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A. *Scientific Reports*, Volume 7, Issue 1, 1 December 2017, Article number 14104
24. **Synergistic effects of nanotexturization and down shifting CdTe quantum dots in solar cell performance**, Tronco-Jurado, U., Saucedo-Flores, E., Ruelas, R., López, R., Alvarez-Ramos, M.E., Ayón, A.A. *Microsystem Technologies*, Volume 23, Issue 9, 1 September 2017, Pages 3945-3953
25. **Stimulation of the photoluminescent properties of CBD-CdS thin films achieved by structural modifications resulting from Ag⁺ doping**, Flores-Pacheco, A., Contreras-Rascón, J.I., Diaz-Reyes, J., Angel-Vicente, P.D., Enríquez, J.P., Castillo, S.J., Álvarez-Ramos, M.E., *Physica Status Solidi - Rapid Research Letters*. Volume 11, Issue 8, August 2017, Article number 1700134
26. **Utilization of down-shifting photoluminescent ZnO quantum dots on solar cells**, Zazueta-Raynaud, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Alvarez-Ramos, M.E., Ayon, A., *Materials Research Express*, Volume 4, Issue 7, July 2017, Article number 076203
27. **Enhancing the power conversion efficiency of solar cells employing down-shifting silicon quantum dots**, Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos, A., Pelayo, J.E., Berman, D., Álvarez-Ramos, M.E., Ayon, A., *Journal of Physics: Conference Series*, Volume 773, Issue 1, 14 December 2016, Article number 012087
28. **Influence of photo-luminescent CdSe/CdS core shell quantum dots in solar cell efficiency**, Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA



Coordinación del Posgrado en Nanotecnología
Departamento de Física

A. Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012088

29. **Characterisation of chemical bath deposition PbS nanofilms using polyethyleneimine, triethanolamine and ammonium nitrate as complexing agents**, Contreras-Rascón, J.I., Díaz-Reyes, J., Luna-Suárez, S., Carrillo-Torres, R.C., Sánchez-Zeferino, R. Thin Solid Films, Volume 692, 31 December 2019, Article number 137609
30. **Efficiency enhancement of silicon solar cells by silicon quantum dots embedded in ZnO films as down-shifting coating**, Higuera-Valenzuela H.J., Ramos-Carrasco A., García-Gutierrez R., Romo-García F., Rangel R., Contreras O.E., Berman-Mendoza D. Journal of Materials Science: Materials in Electronics, Volume 31, Issue 22, Pages 20561-20570, November 2020
31. **Optoelectronic attenuation behavior of Al₂O₃/ZnO nanolaminates grown by Atomic Layer Deposition**, Romo-García, F., Higuera-Valenzuela, H.J., Cabrera-German, D., Berman-Mendoza, D., Ramos-Carrasco, A., Tiznado, H., Hirata, G.A., Contreras, O.E., García-Gutierrez, R., Thin Solid Films, Volume 669, 1 January 2019, Pages 419-424
32. **Single ZnO Nanowire-Based gas sensors to detect low concentrations of hydrogen**, Cardoza-Contreras, M.N., Romo-Herrera, J.M., Ríos, L.A., García-Gutiérrez, R., Zepeda, T.A., Contreras, O.E. Sensors, Volume 15, Issue 12, 4 December 2015, Pages 30539-30544
33. **Effect of Au nanoparticles on the performance of hybrid solar cells** Sharma, M., Lopez-Delgado, R., Ayon, A.A. Microsystem Technologies, Volume 24, Issue 1, 1 January 2018, Pages 543-550
34. **ZnO photoluminescent quantum dots with down-shifting effect applied in solar cells**. Zazueta-Raynaud, A., Pelayo-Ceja, J.E., Lopez-Delgado, R., Ayon, A. Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012036
35. **Silicon solar cell efficiency improvement employing the photoluminescent, downshifting effects of carbon quantum dots** Pelayo, J.E., Zazueta, A., Lopez-Delgado, R., Saucedo, E., Ruelas, R., Ayon, A. Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2016, 15 July 2016, Article number 7514887



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



36. **Silicon solar cell efficiency improvement employing the photoluminescent, down-shifting effects of carbon and CdTe quantum dots** Pelayo, E., Zazueta, A., Lopez, R., Saucedo, E., Ruelas, R., Ayon, A. *Materials for Renewable and Sustainable Energy*, Volume 5, Issue 2, 1 May 2016, Article number 70
37. **Effect of depth of traps in ZnO polycrystalline thin films on ZnO-TFTs performance** Medina-Montes, M.I., Baldenegro-Perez, L.A., Sanchez-Zeferino, R., Rojas-Blanco, L., Becerril-Silva, M., Quevedo-Lopez, M.A., Ramirez-Bon, R. *Solid-State Electronics*, Volume 123, 1 September 2016, Pages 119-123
38. **Fundamentals towards large area synthesis of multifunctional Ultrananocrystalline diamond films via large area hot filament chemical vapor deposition bias enhanced nucleation/bias enhanced growth for fabrication of broad range of multifunctional devices** Alcantar-Peña J.J., de Obaldia E., Montes-Gutierrez J., Kang K., Arellano-Jimenez M.J., Ortega Aguilar J.E., Suchy G.P., Berman-Mendoza D., Garcia R., Yacamán M.J., Auciello O.

LGAC3. NANOESTRUCTURAS Y NANOCOMPOSITOS FUNCIONALIZADOS

1. **Hydrogen-reduced Cu/ZnO composite as efficient reusable catalyst for diesel particulate matter oxidation** Corro, G., Cebada, S., Pal, U., Fierro, J.L.G., Alvarado, J. *Applied Catalysis B: Environmental*, Volume 165, April 01, 2015, Pages 555-565
2. **Effluent disinfection of real wastewater by Ag-TiO₂ nanoparticles photocatalysis** Rodríguez-Méndez, A., Guzmán, C., Elizalde-Peña, E.A., Escobar-Alarcón, L., Vega, M., Rivera, J.A., Esquivel, K. *Journal of Nanoscience and Nanotechnology*, Volume 17, Issue 1, 2017, Pages 711-719
3. **Sonochemical coupled synthesis of Cr-TiO₂ supported on Fe₃O₄ structures and chemical simulation of the degradation mechanism of Malachite Green dye**, de Santiago Colín, D.M., Martínez-Chávez, L.A., Cuán, Á., Elizalde-Peña, E.A., Rivera, J.A., Guzmán, C., Escobar-Alarcón, L., Esquivel, K. *Journal of Photochemistry and Photobiology A: Chemistry*, Volume 364, 1 September 2018, Pages 250-261



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



4. **Role of aluminum and HMTA in the hydrothermal synthesis of two-dimensional n-doped ZnO nanosheet**, Murillo, G., Leon-Salguero, E., Martínez-Alanis, P.R., Esteve, J., Alvarado-Rivera, J., Güell, F. *Nano Energy*, Volume 60, June 2019, Pages 817-826
5. **Reversal magnetization and exchange bias effect of the nanocrystalline Yb_{1-x}Pr_xCrO₃ solid solution**, Mendivil L.F., Alvarado-Rivera J., Verdín E., Díaz J.A., Mata J., Conde A., Durán A. *Applied Physics A: Materials Science and Processing*, Volume 126, Issue 71, July 2020, Article number 574
6. **Recycled Glass and Ce-Doped-Y₃Al₅O₁₂ Nanoparticles Phosphor-in-Glass for White Light-Emitting Diodes Applications**, Salazar-Valenzuela E.A., Alvarado-Rivera J., Chapa C., Álvarez-Ramos M.E. *Physica Status Solidi (A) Applications and Materials Science*, Volume 217, Issue 171, September 2020, Article number 2000226
7. **Color Tunable Emission of Y₃Al₅O₁₂:Ce³⁺ and Sm³⁺-Doped Zinc-Germanate-Tellurite Glass Nanocomposite Powders and Coatings for Light-Emitting Diodes Applications**, Salazar-Valenzuela E.A., Alvarado-Rivera J., Álvarez-Ramos M.E. *Physica Status Solidi (A) Applications and Materials Science*, Volume 218, Issue 4, February 2021, Article number 2000636
8. **Fabrication, structural properties, and tunable light emission of Sm³⁺, Tb³⁺ co-doped SrSnO₃ perovskite nanoparticles**, Pérez-Hernández C.G., Sánchez-Zeferino R., Salazar-Kuri U., Álvarez-Ramos M.E. *Chemical Physics*, Volume 55, 1 November 2021, Article number 111324
9. **Enhanced Stokes-shift and dispersibility in non-polar PMMA solvent of CdTe quantum dots by silica coating**, Flores-Pacheco A., Sánchez-Zeferino R., Saavedra-Rodríguez G., Contreras-Rascón J.I., Díaz-Reyes J., Álvarez-Ramos M.E. *Chemical Physics*, Volume 544, 1 April 2021, Article number 111102
10. **Synthesis of silicon quantum dots using chitosan as a novel reductor agent**, Hernández-Abril P.A., Iriqui-Razcón J.L., León-Sarabia E., Leal-Soto S.D., Álvarez-Ramos M.E., Berman-Mendoza D., Higuera-Valenzuela H.J., *Revista Mexicana de Física*, Volume 67, Issue 2, Pages 249–254, 2021
11. **Sunlight-driven phytochemical synthesis of silver nanoparticles using aqueous extract of Albizia lebeck (L) Benth**, Félix-Domínguez F., Carrillo-



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Torres R.C., Lucero-Acuña A., Sánchez-Zeferino R., Álvarez-Ramos M.E.,
Materials Research Express, Volume 6, Issue 12, 27 November 2019, Article
number 125060

12. **ZnS and ZnO nanocomposite for near white light tuning applications.** Zazueta-Raynaud, A., Cordova-Rubio, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Carrillo-Torres, R.C., Sanchez-Zeferino, R., Alvarez-Ramos, M.E., Ayon, A. 2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752671
13. **Stabilized blue emitting ZnS@SiO₂ quantum dots,** Saavedra Rodríguez, G., Carrillo Torres, R.C., Sánchez Zeferino, R., Álvarez Ramos, M.E. Optical Materials, Volume 89, March 2019, Pages 396-401
14. **Seedless synthesis of silver nanoparticles using sunlight and study of the effect of different ratios of precursors,** Félix-Domínguez, F., Carrillo-Torres, R.C., Lucero-Acuña, A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E. Materials Research Express, Volume 6, Issue 4, 30 January 2019
15. **Low intensity sonosynthesis of iron carbide@iron oxide core-shell nanoparticles,** Argüelles-Pesqueira, A.I., Diéguez-Armenta, N.M., Bobadilla-Valencia, A.K., Nataraj, S.K., Rosas-Durazo, A., Esquivel, R., Alvarez-Ramos, M.E., Escudero, R., Guerrero-German, P., Lucero-Acuña, J.A., Zavala-Rivera, P. Ultrasonics Sonochemistry, Volume 49, December 2018, Pages 303-309
16. **Aqueous-organic phase transfer of gold and silver nanoparticles using thiol-modified oleic acid,** López-Millán, A., Zavala-Rivera, P., Esquivel, R., Carrillo, R., Alvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A. Applied Sciences, Volume 7, Issue 3, 2017, Article number 273
17. **ZnS nanoparticles synthesized through chemical aggregation using polyethyleneimine that works as both a stabilizer and a complexing agent,** Rojas-Hernández, A.G., Mendoza-Peña, K.J., Troyo-Vega, E., Pérez-Hernández, C.G., Munguía-Rodríguez, S., Mendivil-Reynoso, T., Ramirez-Rodriguez, L.P., Ochoa-Landín, R., Alvarez-Ramos, M.E., De Leon, A., Castillo, S.J. Chalcogenide Letters, Volume 14, Issue 1, January 2017, Pages 25-30



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



18. **Raman and Thermoluminescence Studies of HPHT Synthetic Nanodiamond Powders.** Ruiz-Valdez, C.F., Chernov, V., Meléndrez, R., Álvarez-García, S., Santacruz-Gómez, K., Berman-Mendoza, D., Barboza-Flores, M. *Physica Status Solidi (A) Applications and Materials Science*, Volume 215, Issue 22, 21 November 2018, Article number 1800267
19. **Afterglow, thermoluminescence and optically stimulated luminescence characterization of micro-, nano- and ultrananocrystalline diamond films grown on silicon by HFCVD.** Montes-Gutiérrez, J.A., Alcantar-Peña, J.J., de Obaldía, E., Zúñiga-Rivera, N.J., Chernov, V., Meléndrez-Amavizca, R., Barboza-Flores, M., Garcia-Gutierrez, R., Auciello, O. *Diamond and Related Materials*, Volume 85, May 2018, Pages 117-124
20. **Micro-structures of nanodiamonds grown on silicon by hot filament chemical vapor deposition**
21. Montes-Gutierrez, J.A., Garcia-Gutierrez, R., Barboza-Flores, M., Meléndrez, R., Cabanillas, R.E., Contreras, O.E., Hirata, G.A., Rangel-Segura, R. *International Journal of Chemical Reactor Engineering*, Volume 15, Issue 6, 20 December 2017, Article number 20170088
22. **Thermally stimulated luminescence and persistent luminescence of β -irradiated YAG:Pr³⁺ nanophosphors produced by combustion synthesis** Santacruz-Gomez, K., Meléndrez, R., Gil-Tolano, M.I., Jimenez, J.A., Makale, M.T., Barboza-Flores, M., Castaneda, B., Soto-Puebla, D., Pedroza-Montero, M., McKittrick, J., Hirata, G.A. *Radiation Measurements*, Volume 94, 1 November 2016, Pages 35-40
23. **Photoluminescence in nanostructured alpha-silicon nitride coatings (α -Si₃N₄)** Acosta-Enriquez, E.B., Carrillo-Torres, R.C., Acosta Enriquez, M.C., Castillo Ortega, R., Zayas, M.A.E., Castillo, S.J., Pech-Canul, M.I. *Digest Journal of Nanomaterials and Biostructures*, Volume 12, Issue 1, 1 January 2017, Pages 111-117
24. **Green synthesis of reduced graphene oxide using ball milling.** Calderón-Ayala, G., Cortez-Valadez, M., Mani-Gonzalez, P.G., Hurtado, R.B., Contreras-Rascón, J.I., Carrillo-Torres, R.C., Zayas, M.E., Castillo, S.J., Hernández-Martínez, A.R., Flores-Acosta, M. *Carbon Letters*, Volume 21, Issue 1, January 2017, Pages 93-97
25. **Synthesis and characterization of silica-lead sulfide core-shell nanospheres for applications in optoelectronic devices,** Romero-Jaime



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA



Coordinación del Posgrado en Nanotecnología
Departamento de Física

A.K., Acosta-Enríquez M.C., Vargas-Hernández D., Tánori-Córdova J.C., Pineda León H.A., Castillo S.J. *Journal of Materials Science: Materials in Electronics*, Volume 32, Issue 16, Pages 21425-21431, August 2021

26. **Synthesis and characterization of nanoparticles and thin films of PbS by a high-performance procedure using CBD**, Zaragoza-Palacios B.G., Torres-Duarte A.R., Castillo S.J. *Journal of Materials Science: Materials in Electronics*, 2021
27. **Novel route for simplified and efficient synthesis of spiky-like copper sulfide nanoballs by soft chemistry method and their basic physicochemical characterizations**, Romero-Jaime, A.K., Vargas-Hernández, D., Acosta-Enríquez, M.C., Tánori-Córdova, J.C., Valenzuela-Badilla, J., Castillo, S.J. *Materials Science in Semiconductor Processing*, Volume 107, 1 March 2020, Article number 104830
28. **Optical and Structural Characterization of CdTe Nanoparticles Synthesized Using Chemical Bath Deposition Technique**, Olvera-Felix, C., Ramirez-Bon, R., Ochoa-Landín, R., Ruvalcaba-Manzo, S.G., Castillo, S.J. *Journal of Electronic Materials*, Volume 49, Issue 2, 1 February 2020, Pages 1257-1265
29. **Optical and Structural Characterization of Honeycomb-Like Ag₂S Nanoparticles by a Simplified and Stable Wet Chemical Synthesis Method**, Ruvalcaba-Manzo, S.G., Ramírez-Bon, R., Tánori, J., Ochoa-Landín, R., Castillo, S.J. *Journal of Electronic Materials*, 2020
30. **Graphite to Graphene: Green Synthesis Using Opuntia ficus-indica** Calderón-Ayala, G., Cortez-Valadez, M., Acosta-Elías, M., Mani-Gonzalez, P.G., Zayas, M.E., Castillo, S.J., Flores-Acosta, M., *Journal of Electronic Materials*, Volume 48, Issue 3, 15 March 2019, Pages 1553-1561
31. **Obtaining nano structures of cobalt telluride by a simplified ion exchange reaction at aqueous solution**, Arellano-Tánori, O., Chávez-Mendiola, E., Gámez-Corrales, R., García-Cruz, X.M., Apodaca-Ibarra, K., Castillo, S.J. *Chalcogenide Letters*, Volume 16, Issue 2, February 2019, Pages 57-61
32. **Synthesis and characterization of molybdenum sulfide nanoparticles by a new chemical reaction formulation**, Pineda-León, H.A., Carrillo-Castillo, A., Ochoa-Landín, R., Acosta-Enriquez, M.C., Gutiérrez-Heredia, G.,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Ruvalcaba-Manzo, S.G., Castillo, S.J. Chalcogenide Letters, Volume 15, Issue 8, August 2018, Pages 419-424

33. **New route for the synthesis of ammonia-free CdS tetrapods nanoparticles at room temperature by chemical bath deposition**, Castillo, S.J., Apolinar-Irribé, A., Ochoa-Landín, R. Digest Journal of Nanomaterials and Biostructures, Volume 13, Issue 2, April-June 2018, Pages 591-594
34. **Synthesis and characterization of Sn₂S₃ as nanoparticles, powders and thin films, using soft chemistry reactions** Godoy-Rosas, R., Barraza-Félix, S., Ramírez-Bon, R., Ochoa-Landin, R., Pineda-León, H.A., Flores-Acosta, M., Ruvalcaba-Manzo, S.G., Acosta-Enriquez, M.C., Castillo, S.J.. Chalcogenide Letters, Volume 14, Issue 9, September 2017, Pages 365-371
35. **A versatile method to obtain nano structures of CoSe from aqueous solution**, Arellano-Tánori, O., Acosta-Enríquez, E.B., Castillo-Ortega, R., Acosta-Enríquez, M.C., Chavez-Mendiola, E., Ramos-García, R.I., Castillo, S.J. Chalcogenide Letters, Volume 14, Issue 3, March 2017, Pages 107-111
36. **Synthesis and characterization of CdS nanoparticles by two different formulations using polyethylenimine as complexing agent**, Rivera-Nieblas, J.O., Garcia-Bedoya, D., Acosta Enríquez, M.C., Ochoa-Landin, R., Apolinar-Irribé, A., Paraguay Delgado, F., Castillo-Ortega, R., Castillo, S.J. Chalcogenide Letters, Volume 13, Issue 6, June 2016, Pages 257-263
37. **A simple method for the synthesis of CdS nanoparticles using a novel surfactant**, de la Cruz Terrazas, E.C., Ambrosio Lázaro, R.C., Mota González, M.L., Luque, P.A., Castillo, S.J., Carrillo-Castillo, A., Chalcogenide Letters, Volume 12, Issue 4, 2015, Pages 147-153
38. **Novel two-stage method for the synthesis of silicon quantum dots embedded on ZnO matrix**, Higuera-Valenzuela, H.J., Romo-García, F., Cabrera-German, D., Ramos-Carrasco, A., Rosas-Burgos, R., García-Gutiérrez, R., Contreras, O.E., Berman-Mendoza, D., Materials Letters Volume 228, 1 October 2018, Pages 157-159
39. **Photoluminescence on cerium-doped ZnO nanorods produced under sequential atomic layer deposition–hydrothermal processes**, Cervantes-López, J.L., Rangel, R., Espino, J., Martínez, E., García-Gutiérrez, R., Bartolo-Pérez, P., Alvarado-Gil, J.J., Contreras, O.E. Applied Physics A:



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Materials Science and Processing, Volume 123, Issue 1, 1 January 2017,
Article number 86

40. **Self-alignment of silver nanoparticles in highly ordered 2D arrays**, Rodríguez-León, E., Íñiguez-Palomares, R., Urrutia-Bañuelos, E., Herrera-Urbina, R., Tánori, J., Maldonado, A. Nanoscale Research Letters. Volume 10, Issue 1, 1 March 2015, 7p
41. **Gallic Acid-Loaded Zein Nanoparticles by Electro spraying Process**, Tapia-Hernández, J.A., Del-Toro-Sánchez, C.L., Cinco-Moroyoqui, F.J., Ruiz-Cruz, S., Juárez, J., Castro-Enríquez, D.D., Barreras-Urbina, C.G., López-Ahumada, G.A., Rodríguez-Félix, F., Journal of Food Science, Volume 84, Issue 4, April 2019, Pages 818-831
42. **Growth kinetics of gold nanorods synthesized by a seed-mediated method under pH acidic conditions**, Almada, M., Ruiz, E.D., Ibarra-Hurtado, J., Hassan, N., Kogan, M.J., Cadena-Nava, R.D., Valdés, M.A., Juárez, J. Journal of Nanoscience and Nanotechnology, Volume 16, Issue 7, July 2016, Pages 7707-7714
43. **Synthesis and characterization of magnetite/PLGA/chitosan nanoparticles**, Ibarra, J., Melendres, J., Almada, M., Burboa, M.G., Taboada, P., Juárez, J., Valdez, M.A. Materials Research Express, Volume 2, Issue 9, September 2015, Article number 095010
44. **Synthesis and characterization of new thiolated chitosan nanoparticles obtained by ionic gelation method**. Esquivel, R., Juárez, J., Almada, M., Ibarra, J., Valdez, M.A. International Journal of Polymer Science, Volume 2015, 2015, Article number 502058
45. **Anomalous stokes shift of colloidal quantum dots**. Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4
46. **Red-shift of the photoluminescent emission peaks of CdTe quantum dots due to the synergistic interaction with carbon quantum dot mixtures** Pelayo, E., Zazueta, A., López-Delgado, R., Saucedo, E., Ruelas, R., Ayón, A. Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012053



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



47. **Influence of Au/Ag nanostars and CdTe quantum dots on photon manipulation** Ayon, A., Tronco-Jurado, U., Lopez-Delgado, R., Sharma, M., Saucedo-Flores, E., Alvarez-Ramos, E. 2015 Transducers - 2015 18th International Conference on Solid-State Sensors, Actuators and Microsystems, TRANSDUCERS 2015, 5 August 2015, Article number 7181204, Pages 1436-1439
48. **Aqueous-organic phase transfer of iron oxide@iron carbide nanoparticles using amide-amine modified oleic acid**, Arguelles-Pesqueira A., Zavala-Rivera P., Lucero-Acuña A., Guerrero-German P., Durazo A.R., Moreno-Corral R., Tánori J. MRS Advances, Pages 2075-2083, 2020
49. **PLGA nanoparticle preparations by emulsification and nanoprecipitation techniques: Effects of formulation parameters** Hernández-Giottonini, K.Y., Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Peñuñuri-Miranda, O., Zavala-Rivera, P., Guerrero-Germán, P., Lucero-Acuña, A. RSC Advances, Volume 10, Issue 8, 2020, Pages 4218-4231
50. **Characterization of epoxy-nanoparticle composites exposed to gamma & UV radiation for aerospace applications**, Torres, M., Franco-Urquiza, E.A., González-García, P., Bárcena-Balderas, J., Piedra, S., Madera, T., Meléndrez, R., Quintana, P. CAMX 2019 - Composites and Advanced Materials Expo, 2020, Article number TP19-0845
51. **Photoluminescence and Thermoluminescence Properties of Nanophosphors, YVO₄:Eu³⁺ and YVO₄:Eu³⁺:Dy³⁺**, Fernández-Osorio A., Redón R., Medina-Pérez J., Pedroza-Montero M., Acosta M. Journal of Cluster Science, 2021
52. **Confined clustering of AuCu nanoparticles under ambient conditions**, Rocha-Rocha O., Cortez-Valadez M., Calderón-Ayala G., Martínez-Nuñez C.E., Pedroza-Montero M., Flores-Acosta M. Physics Letters, Section A: General, Atomic and Solid State Physics, Volume 383, Issue 34, 5 December 2019, Article number 125985
53. **Effect of temperature on the synthesis of silver nanoparticles with polyethylene glycol: new insights into the reduction mechanism**, Fleitas-Salazar N., Silva-Campa E., Pedroso-Santana S., Tanori J., Pedroza-



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Montero M.R., Riera R. Journal of Nanoparticle Research, Volume 19, Issue 31, March 2017, Article number 113

54. Columnar nitrogen-doped ZnO nanostructured thin films obtained through atomic layer deposition

Rodríguez-López J., Rangel R., Ramos-Carrasco A., Berman-Mendoza D., Quintana-Owen P., Bartolo-Pérez P., Alvarado-Gil J.J. Nanotechnology, Volume 32, Issue 4, 01 October 2021, Article number 405704

RELACION DE ARTICULOS EN AREAS DEL PRONACES

SALUD

1. Deep photothermal effect induced by stereotactic laser beams in highly scattering media

Baez-Castillo L., Ortiz-Rascon E., Carrillo-Torres R.C., Bruce N.C., Garduño-Mejía J., Lucero-Acuna A., Álvarez-Ramos M.E.

Optics Letters, Volume 46, Issue 17, Pages 4248-4251, 1 September 2021



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



2. Synthesis and characterization of a Fe₃O₄@PNIPAM-chitosan nanocomposite and its potential application in vincristine delivery

Hernández-Téllez C.N., Luque-Alcaraz A.G., Plascencia-Jatomea M., Higuera-Valenzuela H.J., Burgos-Hernández M., García-Flores N., Álvarez-Ramos M.E., Iriqui-Razcon J.L., Hernández-Abril P.A.

Polymers, Volume 13, Issue 1, 11 June 2021, Article number 1704

3. Merging Mie solutions and the radiative transport equation to measure optical properties of scattering particles in optical phantoms

Baez-Castillo L., Ortiz-Rascón E., Bruce N.C., Garduño-Mejía J., Carrillo-Torres R.C., Álvarez-Ramos M.E.

Applied Optics, Volume 59, Issue 33, Pages 10591-10598, 20 November 2020

4. Micelle encapsulation of ferromagnetic nanoparticles of iron carbide@iron oxide in chitosan as possible nanomedicine agent

Sauceda-Oloño P.Y., Cardenas-Sanchez H., Argüelles-Pesqueira A.I., Gutierrez-Valenzuela C., Alvarez-Ramos M.E., Lucero-Acuña A., Zavala-Rivera P.

Colloids and Interfaces, Volume 4, Issue 2, June 2020, Article number 22

5. Comparison of spatially and temporally resolved diffuse transillumination measurement systems for extraction of optical properties of scattering media

Ortiz-Rascón, E., Bruce, N.C., Garduño-Mejía, J., Carrillo-Torres, R., Hernández-Paredes, J., Álvarez-Ramos, M.E.

Applied Optics, Volume 56, Issue 33, 20 November 2017, Pages 9199-9204

6. Hollow Au-Ag bimetallic nanoparticles with high photothermal stability

Carrillo-Torres, R.C., García-Soto, M.J., Morales-Chávez, S.D., Garibay-Escobar, A., Hernández-Paredes, J., Guzmán, R., Barboza-Flores, M., Álvarez-Ramos, M.E.

RSC Advances, Volume 6, Issue 47, 2016, Pages 41304-41312

7. Quantification of the radiosensitization effect of high-Z nanoparticles on photon irradiated cells: Combining Monte Carlo simulations and an analytical approach to the local effect model

Melo-Bernal W., Chernov G., Barboza-Flores M., Chernov V.

Physics in Medicine and Biology, Volume 66, Issue 137, July 2021, Article number 135007



"El saber de mis hijos
hará mi grandeza"



8. Improved Method of Study on the Photothermal Effect of Plasmonic Nanoparticles by Dynamic IR Thermography

Chernov, G., Ibarra-Valdez, J.L., Carrillo-Torres, R.C., Medrano-Pesqueira, T.C., Chernov, V., Barboza-Flores, M.

Plasmonics, Volume 14, Issue 4, 15 August 2019, Pages 935-944

9. Nanoscale dose deposition in cell structures under X-ray irradiation treatment assisted with nanoparticles: An analytical approach to the relative biological effectiveness

Melo-Bernal, W., Chernov, V., Chernov, G., Barboza-Flores, M.

Applied Radiation and Isotopes, Volume 138, August 2018, Pages 50-55

10. Magnetite Nanoparticles Functionalized with Vitamin E Analogues: Anticancer Effects

Angulo-Molina, A., Méndez-Rojas, M.A., Palacios-Hernández, T., Contreras-López, O.E., Hirata-Flores, G.A., Flores, J.C., Flores, K.L., Velázquez, C., Robles-Zepeda, R., Silva-Campa, E., Sarabia, A., Barboza-Flores, M., Pedroza-Montero, M., Reyes-Leyva, J.R., Hernández, J.

Materials Today: Proceedings, Volume 3, Issue 2, 2016, Pages 703-707

11. Carboxylated nanodiamond and re-oxygenation process of gamma irradiated red blood cells

Acosta-Elías, M., Sarabia-Sainz, A., Pedroso-Santana, S., Silva-Campa, E., Santacruz-Gomez, K., Angulo-Molina, A., Castaneda, B., Soto-Puebla, D., Barboza-Flores, M., Melendrez, R., Álvarez-García, S., Pedroza-Montero, M.

Physica Status Solidi (A) Applications and Materials Science, Volume 212, Issue 11, 2015, Pages 2437-2444

12. Molecular recognition of glyconanoparticles by RCA and E. coli K88 - Designing transports for targeted therapy

Gallegos-Tabanico, A., Sarabia-Sainz, J.A., Sarabia-Sainz, H.M., Carrillo-Torres, R.C., Guzman-Partida, A.M., Monfort, G.R.-C., Silva-Campa, E., Burgara-Estrella, A.J., Angulo-Molina, A., Acosta-Elias, M., Pedroza-Montero, M., Vazquez-Moreno, L.

Acta Biochimica Polonica, Volume 64, Issue 4, 2017, Pages 671-677

13. Zinc oxide nanoparticles induce an adverse effect on blood glucose levels depending on the dose and route of administration in healthy and diabetic rats



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Virgen-Ortiz A., Apolinar-Irribé A., Díaz-Reval I., Parra-Delgado H., Limón-Miranda S., Sánchez-Pastor E.A., Castro-Sánchez L., Castillo S.J., Dagnino-Acosta A., Bonales-Alatorre E., Rodríguez-Hernández A.
Nanomaterials, Volume 10, Issue 10, Pages 1-10, October 2020, Article number 2005

14. Silver nanoparticles synthesized with *Rumex hymenosepalus* extracts: effective broad-spectrum microbicidal agents and cytotoxicity study

Rodríguez-León, E., Iñiguez-Palomares, R.A., Navarro, R.E., Rodríguez-Beas, C., Larios-Rodríguez, E., Alvarez-Cirerol, F.J., Iñiguez-Palomares, C., Ramírez-Saldaña, M., Hernández Martínez, J., Martínez-Higuera, A., Galván-Moroyoqui, J.M., Martínez-Soto, J.M.

Artificial Cells, Nanomedicine and Biotechnology, Volume 46, Issue 6, 18 August 2018, Pages 1194-1206

15. Nanocarriers as drug delivery systems for propolis: A therapeutic approach

Mendez-Pfeiffer P., Juárez J., Hernandez J., Taboada P., Virués C., Valencia D., Velazquez C.

Journal of Drug Delivery Science and Technology, Volume 6, 5 October 2021, Article number 102762

16. Microfluidics-assisted conjugation of chitosan-coated polymeric nanoparticles with antibodies: Significance in drug release, uptake, and cytotoxicity in breast cancer cells

Escareño N., Hassan N., Kogan M.J., Juárez J., Topete A., Daneri-Navarro A.

Journal of Colloid and Interface Science, Volume 591, Pages 440-450, June 2021

17. Recovery of phytochemical from three safflower (*Carthamus tinctorius* L.) by-products: Antioxidant properties, protective effect of human erythrocytes and profile by UPLC-DAD-MS

Del-Toro-Sánchez C.L., Rodríguez-Félix F., Cinco-Moroyoqui F.J., Juárez J., Ruiz-Cruz S., Wong-Corral F.J., Borboa-Flores J., Castro-Enríquez D.D., Barreras-Urbina C.G., Tapia-Hernández J.A.

Journal of Food Processing and Preservation, 2021

18. Biodegradable photoresponsive nanoparticles for chemo-, photothermal- and photodynamic therapy of ovarian cancer



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Sánchez-Ramírez D.R., Domínguez-Ríos R., Juárez J., Valdés M., Hassan N., Quintero-Ramos A., del Toro-Arreola A., Barbosa S., Taboada P., Topete A., Daneri-Navarro A.

Materials Science and Engineering C, Volume 11, 6 November 2020, Article number 111196

19. Effect of ultrafiltration of Pitaya extract (*Stenocereus thurberi*) on Its phytochemical content, antioxidant capacity, and UPLC-DAD-MS profile

Castro-Enríquez, D.D., Montañón-Leyva, B., Del Toro-Sánchez, C.L., Juárez-Onofre, J.E., Carvajal-Millán, E., López-Ahumada, G.A., Barreras-Urbina, C.G., Tapia-Hernández, J.A., Rodríguez-Félix, F.

Molecules, Volume 25, Issue 2, 2020, Article number 281

20. Improving cell penetration of gold nanorods by using an amphipathic arginine rich peptide

Riveros, A.L., Eggeling, C., Riquelme, S., Adura, C., López-Iglesias, C., Guzmán, F., Araya, E., Almada, M., Juárez, J., Valdez, M.A., Fuentesvilla, I.A., López, O., Kogan, M.J.

International Journal of Nanomedicine, Volume 15, 2020, Pages 1837-1851

21. Antioxidant, antihemolysis, and retinoprotective potentials of bioactive lipidic compounds from wild shrimp (*Litopenaeus stylirostris*) muscle

García-Romo, J.S., Noguera-Artiaga, L., Gálvez-Iriqui, A.C., Hernández-Zazueta, M.S., Valenzuela-Cota, D.F., González-Vega, R.I., Plascencia-Jatomea, M., Burboa-Zazueta, M.G., Sandoval-Petris, E., Robles-Sánchez, R.M., Juárez, J., Hernández-Martínez, J., Santacruz-Ortega, H.D.C., Burgos-Hernández, A.

CYTA - Journal of Food, Volume 18, Issue 1, 1 January 2020, Pages 153-163

22. Cisplatin-loaded PLGA nanoparticles for HER2 targeted ovarian cancer therapy

Domínguez-Ríos, R., Sánchez-Ramírez, D.R., Ruiz-Saray, K., Ocegüera-Basurto, P.E., Almada, M., Juárez, J., Zepeda-Moreno, A., del Toro-Arreola, A., Topete, A., Daneri-Navarro, A.

23. SiRNA silencing by chemically modified biopolymeric nanovectors

Villar-Alvarez, E., Leal, B.H., Martínez-González, R., Pardo, A., Al-Qadi, S., Juárez, J., Valdez, M.A., Cambón, A., Barbosa, S., Taboada, P.

ACS Omega, Volume 4, Issue 2, 21 February 2019, Pages 3904-3921



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



24. Hybrid folic acid-conjugated gold nanorods-loaded human serum albumin nanoparticles for simultaneous photothermal and chemotherapeutic therapy

Encinas-Basurto, D., Ibarra, J., Juárez, J., Pardo, A., Barbosa, S., Taboada, P., Valdez, M.A.

Materials Science and Engineering C, Volume 91, 1 October 2018, Pages 669-678

25. Zein-polysaccharide nanoparticles as matrices for antioxidant compounds: A strategy for prevention of chronic degenerative diseases

Tapia-Hernández, J.A., Rodríguez-Felix, F., Juárez-Onofre, J.E., Ruiz-Cruz, S., Robles-García, M.A., Borboa-Flores, J., Wong-Corral, F.J., Cinco-Moroyoqui, F.J., Castro-Enríquez, D.D., Del-Toro-Sánchez, C.L.

Food Research International, Volume 111, September 2018, Pages 451-471

26. Targeted drug delivery via human epidermal growth factor receptor for sustained release of allyl isothiocyanate

Encinas-Basurto, D., Juárez, J., Valdez, M.A., Burboa, M.G., Barbosa, S., Taboada, P.

Current Topics in Medicinal Chemistry, Volume 18, Issue 14, 2018, Pages 1252-1260

27. Co-encapsulation of magnetic nanoparticles and cisplatin within biocompatible polymers as multifunctional nanoplatfoms: Synthesis, characterization, and in vitro assays

Ibarra, J., Encinas, D., Blanco, M., Barbosa, S., Taboada, P., Juárez, J., Valdez, M.A.

Materials Research Express, Volume 5, Issue 1, January 2018, Article number 015023

28. Microencapsulation of carvacrol using Pectin/Aloe-gel as a novel wound dressing films

Gómez-Rodríguez, G.-H., López-Mata, M.A., Valbuena-Gregorio, E., Melchor, R.G.V., Campos-García, J.C., Silva-Beltrán, N.P., Quihui-Cota, L., Ruiz-Cruz, S., Juárez, J.

Current Topics in Medicinal Chemistry, Volume 18, Issue 14, 2018, Pages 1261-1268

29. Peptide functionalized magneto-plasmonic nanoparticles obtained by microfluidics for inhibition of β -amyloid aggregation



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Hassan, N., Cordero, M.L., Sierpe, R., Almada, M., Juárez, J., Valdez, M., Riveros, A., Vargas, E., Abou-Hassan, A., Ruso, J.M., Kogan, M.J.

Journal of Materials Chemistry B, Volume 6, Issue 31, 2018, Pages 5091-5099

30. Photothermal conversion efficiency and cytotoxic effect of gold nanorods stabilized with chitosan, alginate and poly(vinyl alcohol)

Almada, M., Leal-Martínez, B.H., Hassan, N., Kogan, M.J., Burboa, M.G., Topete, A., Valdez, M.A., Juárez, J.

Materials Science and Engineering C, Volume 77, 1 August 2017, Pages 583-593

31. Poly(lactic-co-glycolic acid) nanoparticles for sustained release of allyl isothiocyanate: characterization, in vitro release and biological activity

Encinas-Basurto, D., Ibarra, J., Juárez, J., Burboa, M.G., Barbosa, S., Taboada, P., Troncoso-Rojas, R., Valdez, M.A.

Journal of Microencapsulation, Volume 34, Issue 3, 3 April 2017, Pages 231-242

32. Oligomers, protofibrils and amyloid fibrils from recombinant human lysozyme (rHL): Fibrillation process and cytotoxicity evaluation for ARPE-19 cell line

Ruiz, E.D., Almada, M., Burboa, M.G., Taboada, P., Mosquera, V., Valdez, M.A., Juárez, J.

Colloids and Surfaces B: Biointerfaces, Volume 126, February 01, 2015, Pages 335-343

33. Temperature stimuli-responsive nanoparticles from chitosan-graft-poly(N-vinylcaprolactam) as a drug delivery system

Fernández-Quiroz, D., Loya-Duarte, J., Silva-Campa, E., Argüelles-Monal, W., Sarabia-Sainz, A.-Í., Lucero-Acuña, A., del Castillo-Castro, T., San Román, J., Lizardi-Mendoza, J., Burgara-Estrella, A.J., Castaneda, B., Soto-Puebla, D., Pedroza-Montero, M.

Journal of Applied Polymer Science, Volume 136, Issue 32, 20 August 2019, Article number 47831

34. Mathematical modeling and parametrical analysis of the temperature dependency of control drug release from biodegradable nanoparticles

Lucero-Acuña, A., Gutiérrez-Valenzuela, C.A., Esquivel, R., Guzmán-Zamudio, R. RSC Advances, Volume 9, Issue 16, 2019, Pages 8728-8739

35. Differential response of BEAS-2B and H-441 cells to methylene blue photoactivation



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Bojang, P., Esquivel, R., Hernández, P., Ramos, K.S., Guzmán-Zamudio, R., Lucero-Acuña, A.
Anticancer Research, Volume 39, Issue 7, 2019, Pages 3739-3744

36. Folate functionalized PLGA nanoparticles loaded with plasmid pVAX1-NH36: Mathematical analysis of release

Gutiérrez-Valenzuela, C.A., Guerrero-Germán, P., Tejeda-Mansir, A., Esquivel, R., Guzmán-Z, R., Lucero-Acuña, A.
Applied Sciences, Volume 6, Issue 12, 2016, Article number 364

37. Nanoparticle encapsulation and controlled release of a hydrophobic kinase inhibitor: Three stage mathematical modeling and parametric analysis

Lucero-Acuña, A., Guzmán, R.
International Journal of Pharmaceutics, Volume 494, Issue 1, 15 October 2015, Article number 15053, Pages 249-257

38. A nanodiamond-fluorescein conjugate for cell studies

Pedroso-Santana, S., Fleitas-Salazar, N., Sarabia-Sainz, A., Silva-Campa, E., Burgara-Estrella, A., Angulo-Molina, A., Melendrez, R., Pedroza-Montero, M., Riera, R.
Advances in Natural Sciences: Nanoscience and Nanotechnology, Volume 9, Issue 1, March 2018, Article number 015013

39. Antioxidant activity of hydrated carboxylated nanodiamonds and its influence on water γ -radiolysis

Santacruz-Gomez, K., Sarabia-Sainz, A., Acosta-Elias, M., Sarabia-Sainz, M., Janetanakit, W., Khosla, N., Melendrez, R., Montero, M.P., Lal, R.
Nanotechnology, Volume 29, Issue 12, 12 February 2018, Article number 125707

40. Nano alterations of membrane structure on both γ -irradiated and stored human erythrocytes

Acosta-Elías, M.A., Burgara-Estrella, A.J., Sarabia-Sainz, J.A.-I., Silva-Campa, E., Angulo-Molina, A., Santacruz-Gómez, K.J., Castaneda, B., Soto-Puebla, D., Ledesma-Osuna, A.I., Melendrez-Amavizca, R., Pedroza-Montero, M.
International Journal of Radiation Biology, Volume 93, Issue 12, 2 December 2017, Pages 1306-1311

41. Carboxylated nanodiamonds inhibit γ -irradiation damage of human red blood cells



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Santacruz-Gomez, K., Silva-Campa, E., Melendrez-Amavizca, R., Teran Arce, F., Mata-Haro, V., Landon, P.B., Zhang, C., Pedroza-Montero, M., Lal, R.
Nanoscale, Volume 8, Issue 13, 7 April 2016, Pages 7189-7196

42. Conformational behavior, topographical features, and antioxidant activity of partly de-esterified arabinoxylans

De Anda-Flores Y., Carvajal-Millan E., Lizardi-Mendoza J., Rascon-Chu A., Tanori-Cordova J., Martínez-López A.L., Burgara-Estrella A.J., Pedroza-Montero M.R.

Polymers, Volume 13, Issue 16, 2 August 2021, Article number 2794

43. Nanoscale Changes on RBC Membrane Induced by Storage and Ionizing Radiation: A Mini-Review

López-Canizales A.M., Angulo-Molina A., Garibay-Escobar A., Silva-Campa E., Mendez-Rojas M.A., Santacruz-Gómez K., Acosta-Elías M., Castañeda-Medina B., Soto-Puebla D., Álvarez-Bajo O., Burgara-Estrella A., Pedroza-Montero M.
Frontiers in Physiology, Volume 12, 4 June 2021, Article number 669455

44. Thermometric characterization of fluorescent nanodiamonds suitable for biomedical applications

Pedroza-Montero F., Santacruz-Gómez K., Acosta-Elías M., Silva-Campa E., Meza-Figueroa D., Soto-Puebla D., Castañeda B., Urrutia-Bañuelos E., Álvarez-Bajo O., Navarro-Espinoza S., Riera R., Pedroza-Montero M.
Applied Sciences, Volume 11, Issue 9, 1 May 2021, Article number 4065

45. Effects of untreated drinking water at three indigenous Yaqui towns in Mexico: Insights from a murine model

Navarro-Espinoza S., Angulo-Molina A., Meza-Figueroa D., López-Cervantes G., Meza-Montenegro M., Armienta A., Soto-Puebla D., Silva-Campa E., Burgara-Estrella A., Álvarez-Bajo O., Pedroza-Montero M.
International Journal of Environmental Research and Public Health, Volume 18, Issue 2, Pages 1-14, 2 January 2021, Article number 805

46. Albumin-Albumin/Lactosylated Core-Shell Nanoparticles: Therapy to Treat Hepatocellular Carcinoma for Controlled Delivery of Doxorubicin

Teran-Saavedra N.G., Sarabia-Sainz J.A., Velázquez-Contreras E.F., Ramos-Clamont Montfort G., Pedroza-Montero M., Vazquez-Moreno L.
Molecules, Volume 25, Issue 22, 20 November 2020

47. A magnetic immunoconjugate nanoplatform for easy colorimetric detection of the NS1 protein of dengue virus in infected serum



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Ramírez-Navarro R., Polesnak P., Reyes-Leyva J., Haque U., Vazquez-Chagoyán J.C., Pedroza-Montero M.R., Méndez-Rojas M.A., Angulo-Molina A. Nanoscale Advances, Volume 2, Issue 7, Pages 3017-3026, July 2020

48. Combination of ultraviolet light-C and clove essential oil to inactivate Salmonella Typhimurium biofilms on stainless steel

Silva-Espinoza B.A., Palomares-Navarro J.J., Tapia-Rodríguez M.R., Cruz-Valenzuela M.R., González-Aguilar G.A., Silva-Campa E., Pedroza-Montero M., Almeida-Lopes M., Miranda R., Ayala-Zavala J.F. Journal of Food Safety, Volume 40, Issue 3, 1 June 2020, Article number e12788

49. Atomic force microscopy and Raman spectra profile of blood components associated with exposure to cigarette smoking

Burgara-Estrella A.J., Acosta-Elías M.A., Álvarez-Bajo O., Silva-Campa E., Angulo-Molina A., Rodríguez-Hernández I.D.C., Sarabia-Sainz H.M., Escalante-Lugo V.M., Pedroza-Montero M.R. RSC Advances, Volume 10, Issue 20, Pages 11971-11981, 24 March 2020

50. Lactosylated albumin nanoparticles: Potential drug nanovehicles with selective targeting toward an in vitro model of hepatocellular carcinoma

Teran-Saavedra N.G., Sarabia-Sainz J.A.-I., Silva-Campa E., Burgara-Estrella A.J., Guzmán-Partida A.M., Montfort G.R.-C., Pedroza-Montero M., Vazquez-Moreno L. Molecules, Volume 24, Issue 79, April 2019, Article number 1382

51. Specific capture of glycosylated graphene oxide by an asialoglycoprotein receptor: A strategic approach for liver-targeting

Díaz-Galvez K.R., Teran-Saavedra N.G., Burgara-Estrella A.J., Fernández-Quiroz D., Silva-Campa E., Acosta-Elías M., Sarabia-Sainz H.M., Pedroza-Montero M.R., Sarabia-Sainz J.A. RSC Advances, Volume 9, Issue 18, Pages 9899-9906, 2019

52. Effect of gamma irradiation doses in the structural and functional properties of mice splenic cells

Deana Y., Burgara-Estrella A.J., Montalvo-Corral M., Angulo-Molina A., Acosta-Elías M.A., Silva-Campa E., Sarabia-Sainz J.A., Rodríguez-Hernández I.C., Pedroza-Montero M.R. International Journal of Radiation Biology, Volume 95, Issue 3, Pages 286-297, 6 December 2018



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



53. Nanodiamonds and gold nanoparticles to obtain a hybrid nanostructure with potential applications in biomedicine

Pedroso-Santana S., Fleitas-Salazar N., Sarabia-Sainz A., Silva-Campa E., Angulo-Molina A., Pedroza-Montero M., Riera R.

Nanotechnology, Volume 29, Issue 4324 August 2018 Article number 435101

54. Electro spray-assisted fabrication of core-shell arabinoxylan gel particles for insulin and probiotics entrapment

Paz-Samaniego R., Rascón-Chu A., Brown-Bojorquez F., Carvajal-Millan E., Pedroza-Montero M., Silva-Campa E., Sotelo-Cruz N., López-Franco Y.L., Lizardi-Mendoza J.

Journal of Applied Polymer Science, Volume 135, Issue 26, 10 July 2018, Article number 46411

55. Denoising and principal component analysis of amplified raman spectra from red blood cells with added silver nanoparticles

Ferrer-Galindo L., Sañu-Ginarte A.D., Fleitas-Salazar N., Ferrer-Moreno L.A., Rosas R.A., Pedroza-Montero M., Riera R.

Journal of Nanomaterials, Volume 2018, 2018, Article number 9417819

56. Deagglomeration and characterization of detonation nanodiamonds for biomedical applications

Pedroso-Santana S., Sarabia-Saínz A., Fleitas-Salazar N., Santacruz-Gómez K., Acosta-Elías M., Pedroza-Montero M., Riera R.

Journal of Applied Biomedicine, Volume 15, Issue 1, Pages 15-21, 1 January 2017

57. Effect of freeze-thawing conditions for preparation of chitosan-poly (vinyl alcohol) hydrogels and drug release studies

Figuroa-Pizano, M.D., Vélaz, I., Peñas, F.J., Zavala-Rivera, P., Rosas-Durazo, A.J., Maldonado-Arce, A.D., Martínez-Barbosa, M.E.

Carbohydrate Polymers, Volume 195, 1 September 2018, Pages 476-485



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



SOBERANÍA ALIMENTARIA

1. Silver Nanoparticles Synthesized with *Rumex hymenosepalus*: A Strategy to Combat Early Mortality Syndrome (EMS) in a Cultivated White Shrimp

Alvarez-Cirerol, F.J., López-Torres, M.A., Rodríguez-León, E., Rodríguez-Beas, C., Martínez-Higuera, A., Lara, H.H., Vergara, S., Arellano-Jimenez, M.J., Larios-Rodríguez, E., Martínez-Porchas, M., De-La-Re-Vega, E., Iniguez-Palomares, R.A.

Journal of Nanomaterials, Volume 2019, 2019, Article number 8214675

2. Advances in the study of the multifunctional bioactivity of kefir

Rodríguez-Figueroa, J.C., Noriega-Rodríguez, J.A., Lucero-Acuña, A.
Interciencia, Volume 42, Issue 6, June 2017, Pages 347-354



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



DESARROLLO INDUSTRIAL Y TOXICIDADES

1. Photoluminescent properties of ZnO nanorods films used to detect methanol contamination in tequila

Maldonado-Arriola J.A., Sánchez-Zeferino R., Álvarez-Ramos M.E.
Sensors and Actuators, A: Physical, Volume 31, 21 September 2020, Article number 112142

2. An innovative method to reduce oil waste using a sensor made of recycled material to evaluate engine oil life in automotive workshops

Heredia-Cancino J., Carrillo-Torres R., Munguía-Aguilar H., Álvarez-Ramos M.
Environmental Science and Pollution Research, Volume 27, Issue 22, Pages 28104- 281121, August 2020

3. Fiber optic sensor using ZnO for detection of adulterated tequila with methanol

Necochea-Chamorro, J.I., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.
Optical Fiber Technology, Volume 52, November 2019, Article number 101982

4. Effect of degradation on tribological performance of engine lubricants at elevated temperatures

Heredia-Cancino, J.A., Ramezani, M., Álvarez-Ramos, M.E.
Tribology International, Volume 124, August 2018, Pages 230-237

5. Effect of Yucca baccata butanolic extract on the shelf life of chicken and development of an antimicrobial packaging for beef

Gutiérrez-García G.J., Quintana-Romero L.A., Morales-Figueroa G.G., Esparza-Romero J., Pérez-Morales R., López-Mata M.A., Juárez J., Sánchez-Escalante J.J., Peralta E., Quihui-Cota L., Soto-Valdez H.
Food Control, Volume 12, 7September 2021, Article number 108142

6. Production of Biocomposites Using Different Pre-treated Cut Jute Fibre and Polylactic Acid Matrix and Their Properties

Burrola-Núñez, H., Herrera-Franco, P., Soto-Valdez, H., Rodríguez-Félix, D.E., Meléndrez-Amavizca, R., Madera-Santana, T.J.
Journal of Natural Fibers, 2019 (Artículo en prensa)

7. Effect of gamma irradiation on physicochemical properties of commercial poly(lactic acid) clamshell for food packaging



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Madera-Santana, T.J., Meléndrez, R., González-García, G., Quintana-Owen, P.,
Pillai, S.D.
Radiation Physics and Chemistry, Volume 123, June 01, 2016, Pages 6-13



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



CAMBIO CLIMÁTICO Y CALIDAD DEL AIRE

1. Hydrogen-reduced Cu/ZnO composite as efficient reusable catalyst for diesel particulate matter oxidation

Corro, G., Cebada, S., Pal, U., Fierro, J.L.G., Alvarado, J.

Applied Catalysis B: Environmental, Volume 165, April 01, 2015, Pages 555-565

2. Room temperature CO₂ sensing using Au-decorated ZnO nanorods deposited on an optical fiber

Álvarez-Ramos M.E., Necochea-Chamorro J.I., Carrillo-Torres R.C., Sánchez-Zeferino R.

Materials Science and Engineering B: Solid-State Materials for Advanced Technology, Volume 262, December 2020, Article number 114720

3. Identification of refractory zirconia from catalytic converters in dust: An emerging pollutant in urban environments

Meza-Figueroa D., Pedroza-Montero M., Barboza-Flores M., Navarro-Espinoza S., Ruiz-Torres R., Robles-Morúa A., Romero F., Schiavo B., González-Grijalva B., Acosta-Elias M., Mendoza-Córdova A.

Science of the Total Environment, Volume 76015, March 2021, Article number 143384

4. Metal bioaccessibility, particle size distribution and polydispersity of playground dust in synthetic lysosomal fluids

Meza-Figueroa, D., Barboza-Flores, M., Romero, F.M., Acosta-Elias, M., Hernández-Mendiola, E., Maldonado-Escalante, F., Pérez-Segura, E., González-Grijalva, B., Meza-Montenegro, M., García-Rico, L., Navarro-Espinoza, S., Santacruz-Gómez, K., Gallego-Hernández, A., Pedroza-Montero, M.

Science of the Total Environment, Volume 713, 15 April 2020, Article number 136481

5. Single ZnO Nanowire-Based gas sensors to detect low concentrations of hydrogen

Cardoza-Contreras, M.N., Romo-Herrera, J.M., Ríos, L.A., García-Gutiérrez, R., Zepeda, T.A., Contreras, O.E.

Sensors, Volume 15, Issue 12, 4 December 2015, Pages 30539-30544



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



6. Identification of inhalable rutile and polycyclic aromatic hydrocarbons (PAHs) nanoparticles in the atmospheric dust

Gallego-Hernández A.L., Meza-Figueroa D., Tanori J., Acosta-Elías M., González-Grijalva B., Maldonado-Escalante J.F., Rochín-Wong S., Soto-Puebla D., Navarro-Espinoza S., Ochoa-Contreras R., Pedroza-Montero M.
Environmental Pollution, Volume 260, May 2020, Article number 114006

7. Source apportionment and environmental fate of lead chromates in atmospheric dust in arid environments

Meza-Figueroa D., González-Grijalva B., Romero F., Ruiz J., Pedroza-Montero M., Rivero C.I.-D., Acosta-Elías M., Ochoa-Landin L., Navarro-Espinoza S.
Science of the Total Environment, Volume 630, Pages 1596-1607, 15 July 2018

8. The influence of monsoon climate on latewood growth of southwestern ponderosa pine

Morales-Burgos A.M., Carvajal-Millan E., López-Franco Y.L., Rascón-Chu A., Lizardi-Mendoza J., Sotelo-Cruz N., Brown-Bojórquez F., Burgara-Estrella A., Pedroza-Montero M.
Forests, Volume 8, Issue 5, Pages 140, 25 April 2017



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



TRANSICIÓN ENERGÉTICA

1. Zinc sulfide quantum dots coated with PVP: applications on commercial solar cells

Melendres-Sánchez J.C., López-Delgado R., Saavedra-Rodríguez G., Carrillo-Torres R.C., Sánchez-Zeferino R., Ayón A., Álvarez-Ramos M.E.
Journal of Materials Science: Materials in Electronics, Volume 32, Issue 2, Pages 1457-1465, January 2021

2. One-pot Synthesized Silicon Quantum Dot Films for Luminescent Solar Concentrators

Lopez-Delgado R., Cordova-Rubio A.J., Carrillo-Torres R.C., Alvarez-Ramos M.E.
Conference Record of the IEEE Photovoltaic Specialists Conference, Volume 2020-June, Pages 2192-2194, 14 June 2020 Article number 9300512

3. Synthesis of Si and CdTe quantum dots and their combined use as down-shifting photoluminescent centers in Si solar cells

Guerrero-Gonzalez, R., Orona, F.A., Saucedo-Flores, E., Ruelas, R., Pelayo-Ceja, J.E., Lopez-Delgado, R., Cordova-Rubio, A., Álvarez-Ramos, M.E., Ayon, A.
Materials for Renewable and Sustainable Energy, Volume 8, Issue 3, 1 September 2019, Article number 14

4. Silicon solar cell efficiency improvement employing photoluminescent properties of chlorophyll-A

Lopez-Delgado, R., Tostado-Plascencia, M., Álvarez-Ramos, M.E., Ayón, A.
Microelectronic Engineering, Volume 216, 15 August 2019, Article number 111047

5. Optimization of ZnO down-shifting photoluminescent quantum dots thin film layers and their influence on single-crystal silicon solar cells

Flores-Pacheco, A., Alvarez-Ramos, M.E., Zepeda-Galvez, J.A., Ayon, A.A.
2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752928

6. Anomalous Stokes shift of colloidal quantum dots and their influence on solar cell performance



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Alvarez-Ramos, M.E., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A.
Microsystem Technologies, 2019

7. Evaluation of pH-tuned ZnO down-shifting photoluminescent quantum dots and their influence on single-crystal silicon solar cells

Flores-Pacheco, A., Montes-Bojórquez, J.R., Álvarez-Ramos, M.E., Ayón, A.A.
Proceedings of SPIE - The International Society for Optical Engineering
Volume 10929, 2019, Article number 109290V

8. Solar cell efficiency improvement by photon absorption enhancement employing rare earth doped films

Lopez-Delgado, R., Melendres-Sanchez, J.C., Cordova-Rubio, A.J., Álvarez-Ramos, M.E., Ayon, A.
Journal of Physics: Conference Series, Volume 1052, Issue 1, 26 July 2018,
Article number 012068

9. ZnS quantum dots coated with PVP to enhance solar cell performance

Melendres-Sanchez, J.C., Lopez-Delgado, R., Ayon, A., Saavedra-Rodriguez, G., Sánchez-Zeferino, R., Carrillo-Torres R.C., Alvarez-Ramos, M.E.
Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

10. Influence of photoluminescent Si and ZnO QD multilayered films on solar cell efficiency

Cordova-Rubio, A., Lopez-Delgado, R., Zazueta-Raynaud, A., Ayon, A., Alvarez-Ramos, M.E.
Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

11. Solar cell efficiency improvement employing down-shifting silicon quantum dots

Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos-Carrasco, A., Pelayo, J.E., Berman-Mendoza, D., Álvarez-Ramos, M.E., Ayon, A.
Microsystem Technologies, Volume 24, Issue 1, 1 January 2018, Pages 495-502

12. Enhanced conversion efficiency in Si solar cells employing photoluminescent down-shifting CdSe/CdS core/shell quantum dots



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A.
Scientific Reports, Volume 7, Issue 1, 1 December 2017, Article number 14104

13. Synergistic effects of nanotexturization and down shifting CdTe quantum dots in solar cell performance

Tronco-Jurado, U., Saucedo-Flores, E., Ruelas, R., López, R., Alvarez-Ramos, M.E., Ayón, A.A.
Microsystem Technologies, Volume 23, Issue 9, 1 September 2017, Pages 3945-3953

14. Utilization of down-shifting photoluminescent ZnO quantum dots on solar cells

Zazueta-Raynaud, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Alvarez-Ramos, M.E., Ayon, A.
Materials Research Express, Volume 4, Issue 7, July 2017, Article number 076203

15. Enhancing the power conversion efficiency of solar cells employing down-shifting silicon quantum dots

Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos, A., Pelayo, J.E., Berman, D., Álvarez-Ramos, M.E., Ayon, A.
Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012087

16. Influence of photo-luminescent CdSe/CdS core shell quantum dots in solar cell efficiency

Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A.
Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012088

17. Efficiency enhancement of silicon solar cells by silicon quantum dots embedded in ZnO films as down-shifting coating

Higuera-Valenzuela H.J., Ramos-Carrasco A., García-Gutierrez R., Romo-García F., Rangel R., Contreras O.E., Berman-Mendoza D.
Journal of Materials Science: Materials in Electronics, Volume 31, Issue 22, Pages 20561-20570, November 2020

18. Anomalous stokes shift of colloidal quantum dots



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A. Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

19. Effect of Au nanoparticles on the performance of hybrid solar cells

Sharma, M., Lopez-Delgado, R., Ayon, A.A.

Microsystem Technologies, Volume 24, Issue 1, 1 January 2018, Pages 543-550

20. ZnO photoluminescent quantum dots with down-shifting effect applied in solar cells.

Zazueta-Raynaud, A., Pelayo-Ceja, J.E., Lopez-Delgado, R., Ayon, A.

Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012036

21. Red-shift of the photoluminescent emission peaks of CdTe quantum dots due to the synergistic interaction with carbon quantum dot mixtures

Pelayo, E., Zazueta, A., López-Delgado, R., Saucedo, E., Ruelas, R., Ayón, A.

Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012053

22. Silicon solar cell efficiency improvement employing the photoluminescent, downshifting effects of carbon quantum dots

Pelayo, J.E., Zazueta, A., Lopez-Delgado, R., Saucedo, E., Ruelas, R., Ayon, A.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2016, 15 July 2016, Article number 7514887

23. Silicon solar cell efficiency improvement employing the photoluminescent, down-shifting effects of carbon and CdTe quantum dots

Pelayo, E., Zazueta, A., Lopez, R., Saucedo, E., Ruelas, R., Ayon, A.

Materials for Renewable and Sustainable Energy, Volume 5, Issue 2, 1 May 2016, Article number 70



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



SISTEMAS SOCIO-ECOLÓGICOS Y SUSTENTABILIDAD

1. Effluent disinfection of real wastewater by Ag-TiO₂ nanoparticles photocatalysis

Rodríguez-Méndez, A., Guzmán, C., Elizalde-Peña, E.A., Escobar-Alarcón, L., Vega, M., Rivera, J.A., Esquivel, K.

Journal of Nanoscience and Nanotechnology, Volume 17, Issue 1, 2017, Pages 711-719

2. Sonochemical coupled synthesis of Cr-TiO₂ supported on Fe₃O₄ structures and chemical simulation of the degradation mechanism of Malachite Green dye

de Santiago Colín, D.M., Martínez-Chávez, L.A., Cuán, Á., Elizalde-Peña, E.A., Rivera, J.A., Guzmán, C., Escobar-Alarcón, L., Esquivel, K.

Journal of Photochemistry and Photobiology A: Chemistry, Volume 364, 1 September 2018, Pages 250-261

3. Recycled Glass and Ce-Doped-Y₃Al₅O₁₂ Nanoparticles Phosphor-in-Glass for White Light-Emitting Diodes Applications

Salazar-Valenzuela E.A., Alvarado-Rivera J., Chapa C., Álvarez-Ramos M.E.

Physica Status Solidi (A) Applications and Materials Science, Volume 217, Issue 171, September 2020, Article number 2000226

4. Sunlight-driven phytochemical synthesis of silver nanoparticles using aqueous extract of Albizia lebeck (L) Benth

Félix-Domínguez F., Carrillo-Torres R.C., Lucero-Acuña A., Sánchez-Zeferino R., Álvarez-Ramos M.E.

Materials Research Express, Volume 6, Issue 12, 27 November 2019, Article number 125060

5. Biosynthesis of gold and silver nanoparticles using Parkinsonia Florida leaf extract and antimicrobial activity of silver nanoparticles



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



López-Millán, A., Del Toro-Sánchez, C.L., Ramos-Enríquez, J.R., Carrillo-Torres, R.C., Zavala-Rivera, P., Esquivel, R., Álvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.
Materials Research Express, Volume 6, Issue 9, 5 July 2019, Article number 095025

6. Seedless synthesis of silver nanoparticles using sunlight and study of the effect of different ratios of precursors

Félix-Domínguez, F., Carrillo-Torres, R.C., Lucero-Acuña, A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.
Materials Research Express, Volume 6, Issue 4, 30 January 2019

7. Green synthesis of reduced graphene oxide using ball milling

Calderón-Ayala, G., Cortez-Valadez, M., Mani-Gonzalez, P.G., Hurtado, R.B., Contreras-Rascón, J.I., Carrillo-Torres, R.C., Zayas, M.E., Castillo, S.J., Hernández-Martínez, A.R., Flores-Acosta, M.
Carbon Letters, Volume 21, Issue 1, January 2017, Pages 93-97

8. Graphite to Graphene: Green Synthesis Using *Opuntia ficus-indica*

Calderón-Ayala, G., Cortez-Valadez, M., Acosta-Elías, M., Mani-Gonzalez, P.G., Zayas, M.E., Castillo, S.J., Flores-Acosta, M.
Journal of Electronic Materials, Volume 48, Issue 3, 15 March 2019, Pages 1553-1561

9. Bioadsorption of copper and zinc with pre-treated and untreated dry biomass of *Escherichia coli*

Terán Valdez, D.P., Monge Amaya, O., Certucha Barragán, M.T., Almendariz Tapia, F.J., Zavala Rivera, P., Sierra Álvarez, Y.R.
Revista Internacional de Contaminacion Ambiental, Volume 35, Issue Special Issue 3, 2019, Pages 45-55

10. Removal of iron and manganese from a polluted effluent using a chelating resin

Martínez Meza, R.G., Certucha Barragán, M.T., Zavala Rivera, P., Gómez Álvarez, A., Almazán Holguín, L.A.
Revista Internacional de Contaminacion Ambiental, Volume 33, Issue Special Issue 1, 2017, Pages 55-63



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



RELACION DE ARTICULOS POR INVESTIGADOR

ALVARADO RIVERA JOSEFINA

1. Spectroscopic studies of the behavior of Eu³⁺ on the luminescence of cadmium tellurite glasses

Garcia-Amaya, I.V., Zayas, M.E., Alvarado-Rivera, J., Alvarez, E., Gallardo-Heredia, S.A., Limon, G.A., Lozada-Morales, R., Rincon, J.M.

Journal of Spectroscopy

Volume 2015, 2015, Article number 478329

2. Hydrogen-reduced Cu/ZnO composite as efficient reusable catalyst for diesel particulate matter oxidation

Corro, G., Cebada, S., Pal, U., Fierro, J.L.G., Alvarado, J.

Applied Catalysis B: Environmental, Volume 165, April 01, 2015, Pages 555-565

3. Effluent disinfection of real wastewater by Ag-TiO₂ nanoparticles photocatalysis

Rodríguez-Méndez, A., Guzmán, C., Elizalde-Peña, E.A., Escobar-Alarcón, L., Vega, M., Rivera, J.A., Esquivel, K.

Journal of Nanoscience and Nanotechnology, Volume 17, Issue 1, 2017, Pages 711-719

4. Yellow to orange-reddish glass phosphors: Sm³⁺, Tb³⁺ and Sm³⁺/Tb³⁺ in zinc tellurite-germanate glasses

Alvarez-Ramos, M.E., Alvarado-Rivera, J., Zayas, M.E., Caldiño, U., Hernández-Paredes, J.

Optical Materials

Volume 75, January 2018, Pages 88-93



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



5. Sonochemical coupled synthesis of Cr-TiO₂ supported on Fe₃O₄ structures and chemical simulation of the degradation mechanism of Malachite Green dye

de Santiago Colín, D.M., Martínez-Chávez, L.A., Cuán, Á., Elizalde-Peña, E.A., Rivera, J.A., Guzmán, C., Escobar-Alarcón, L., Esquivel, K.

Journal of Photochemistry and Photobiology A: Chemistry, Volume 364, 1 September 2018, Pages 250-261

6. Influence of Eu₂O₃ on phase crystallization and nanocrystals formation in tellurite glasses

García-Amaya, I.V., Zayas, M.E., Alvarado-Rivera, J., Cortez-Valadez, M., Pérez-Tello, M., Cayetano-Castro, N., Martínez-Suárez, F., Mendoza-Córdova, A.

Journal of Non-Crystalline Solids, Volume 499, 1 November 2018, Pages 49-57

7. Role of aluminum and HMTA in the hydrothermal synthesis of two-dimensional n-doped ZnO nanosheet

Murillo, G., Leon-Salguero, E., Martínez-Alanis, P.R., Esteve, J., Alvarado-Rivera, J., Güell, F.

Nano Energy, Volume 60, June 2019, Pages 817-826

8. Tunable emission and energy transfer in TeO₂-GeO₂-ZnO and TeO₂-GeO₂-MgCl₂ glasses activated with Eu³⁺/Dy³⁺ for solid state lighting applications

Carrillo-Torres, R.C., Saavedra-Rodríguez, G., Alvarado-Rivera, J., Caldiño, U., Sánchez-Zeferino, R., Alvarez-Ramos, M.E.

Journal of Luminescence, Volume 212, August 2019, Pages 116-125

9. Co-emission and energy transfer of Sm³⁺ and/or Eu³⁺ activated zinc-germanate-tellurite glass as a potential tunable orange to reddish-orange phosphor

Alvarez-Ramos, M.E., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Caldiño, U., Alvarado-Rivera, J.

Journal of Non-Crystalline Solids, Volume 521, 1 October 2019, Article number 119462

10. Reversal magnetization and exchange bias effect of the nanocrystalline Yb_{1-x}Pr_xCrO₃ solid solution

Mendivil L.F., Alvarado-Rivera J., Verdín E., Díaz J.A., Mata J., Conde A., Durán A.

Applied Physics A: Materials Science and Processing, Volume 126, Issue 71, July 2020, Article number 574



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



11. Recycled Glass and Ce-Doped-Y₃Al₅O₁₂ Nanoparticles Phosphor-in-Glass for White Light-Emitting Diodes Applications

Salazar-Valenzuela E.A., Alvarado-Rivera J., Chapa C., Álvarez-Ramos M.E.
Physica Status Solidi (A) Applications and Materials Science, Volume 217, Issue 171, September 2020, Article number 2000226

12. Color Tunable Emission of Y₃Al₅O₁₂:Ce³⁺ and Sm³⁺-Doped Zinc-Germanate-Tellurite Glass Nanocomposite Powders and Coatings for Light-Emitting Diodes Applications

Salazar-Valenzuela E.A., Alvarado-Rivera J., Álvarez-Ramos M.E.
Physica Status Solidi (A) Applications and Materials Science, Volume 218, Issue 4, February 2021, Article number 2000636



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



ÁLVAREZ RAMOS MARIO ENRIQUE

Artículos

1. Fabrication, structural properties, and tunable light emission of Sm³⁺, Tb³⁺ co-doped SrSnO₃ perovskite nanoparticles

Pérez-Hernández C.G., Sánchez-Zeferino R., Salazar-Kuri U., Álvarez-Ramos M.E.
Chemical Physics, Volume 55, 1 November 2021, Article number 111324

2. Structural, luminescent and upconversion characteristics of Er³⁺ doped titanium zinc tellurite glass

Alvarez-Ramos M.E., Félix-Domínguez F., Saavedra-Rodríguez G., Carrillo-Torres R.C.

Optical Materials, Volume 1, 20 October 2021, Article number 111413

3. Deep photothermal effect induced by stereotactic laser beams in highly scattering media

Baez-Castillo L., Ortiz-Rascon E., Carrillo-Torres R.C., Bruce N.C., Garduño-Mejía J., Lucero-Acuna A., Álvarez-Ramos M.E.

Optics Letters, Volume 46, Issue 17, Pages 4248-4251, 1 September 2021

4. Synthesis and characterization of a Fe₃O₄@PNIPAM-chitosan nanocomposite and its potential application in vincristine delivery

Hernández-Téllez C.N., Luque-Alcaraz A.G., Plascencia-Jatomea M., Higuera-Valenzuela H.J., Burgos-Hernández M., García-Flores N., Álvarez-Ramos M.E., Iriqui-Razcon J.L., Hernández-Abril P.A.

Polymers, Volume 13, Issue 1, 11 June 2021, Article number 1704

5. Down-shifting and down-conversion emission properties of novel CdO-P₂O₅ invert glasses activated with Pr³⁺ and Pr³⁺/Yb³⁺ for photonic applications

Romero-Romo W., Carmona-Téllez S., Lozada-Morales R., Soriano-Romero O., Caldiño U., Álvarez-Ramos M.E., Zayas M.E., Meza-Rocha A.N.

Optical Materials, Volume 1, 16 June 2021, Article number 111009

6. Study of the optical properties and cross relaxation process of Dy³⁺ under simultaneous UV-IR excitation in tellurite glasses

Alvarez-Ramos M.E.

Journal of Luminescence, Volume 23, 3 May 2021, Article number 117874



"El saber de mis hijos
hará mi grandeza"



7. Enhanced Stokes-shift and dispersibility in non-polar PMMA solvent of CdTe quantum dots by silica coating

Flores-Pacheco A., Sánchez-Zeferino R., Saavedra-Rodríguez G., Contreras-Rascón J.I., Díaz-Reyes J., Álvarez-Ramos M.E.

Chemical Physics, Volume 544, 1 April 2021, Article number 111102

8. Structural and optical modifications of CdS properties in CdS-Au thin films prepared by CBD

Contreras-Rascón J.I., Díaz-Reyes J., Flores-Pacheco A., Lozada Morales R., Álvarez-Ramos M.E., Balderas-López J.A.

Results in Physics, Volume 22, March 2021, Article number 103914

9. Luminescence and study of channels for cross-relaxation dependent on the concentration of Sm³⁺ under simultaneous UV-IR excitation in tellurite-germanate glasses

Alvarez-Ramos M.E.

Journal of Alloys and Compounds, Volume 854, 15 February 2021, Article number 157076

10. Color Tunable Emission of Y₃Al₅O₁₂:Ce³⁺ and Sm³⁺-Doped Zinc-Germanate-Tellurite Glass Nanocomposite Powders and Coatings for Light-Emitting Diodes Applications

Salazar-Valenzuela E.A., Alvarado-Rivera J., Álvarez-Ramos M.E.

Physica Status Solidi (A) Applications and Materials Science, Volume 218, Issue 4, February 2021, Article number 2000636

11. Synthesis of silicon quantum dots using chitosan as a novel reductor agent

Hernández-Abril P.A., Iriqui-Razcón J.L., León-Sarabia E., Leal-Soto S.D., Álvarez-Ramos M.E., Berman-Mendoza D., Higuera-Valenzuela H.J.

Revista Mexicana de Física, Volume 67, Issue 2, Pages 249–254, 2021

12. Zinc sulfide quantum dots coated with PVP: applications on commercial solar cells

Melendres-Sánchez J.C., López-Delgado R., Saavedra-Rodríguez G., Carrillo-Torres R.C., Sánchez-Zeferino R., Ayón A., Álvarez-Ramos M.E.

Journal of Materials Science: Materials in Electronics, Volume 32, Issue 2, Pages 1457-1465, January 2021



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



13. Room temperature CO₂ sensing using Au-decorated ZnO nanorods deposited on an optical fiber

Álvarez-Ramos M.E., Necochea-Chamorro J.I., Carrillo-Torres R.C., Sánchez-Zeferino R.

Materials Science and Engineering B: Solid-State Materials for Advanced Technology, Volume 262, December 2020, Article number 114720

14. Merging Mie solutions and the radiative transport equation to measure optical properties of scattering particles in optical phantoms

Baez-Castillo L., Ortiz-Rascón E., Bruce N.C., Garduño-Mejía J., Carrillo-Torres R.C., Álvarez-Ramos M.E.

Applied Optics, Volume 59, Issue 33, Pages 10591-10598, 20 November 2020

15. Recycled Glass and Ce-Doped-Y₃Al₅O₁₂ Nanoparticles Phosphor-in-Glass for White Light-Emitting Diodes Applications

Salazar-Valenzuela E.A., Alvarado-Rivera J., Chapa C., Álvarez-Ramos M.E.

Physica Status Solidi (A) Applications and Materials Science, Volume 217, Issue 17, 1 September 2020, Article number 2000226

16. Photoluminescent properties of ZnO nanorods films used to detect methanol contamination in tequila

Maldonado-Arriola J.A., Sánchez-Zeferino R., Álvarez-Ramos M.E.

Sensors and Actuators, A: Physical, Volume 31, 21 September 2020, Article number 112142

17. An innovative method to reduce oil waste using a sensor made of recycled material to evaluate engine oil life in automotive workshops

Heredia-Cancino J., Carrillo-Torres R., Munguía-Aguilar H., Álvarez-Ramos M.

Environmental Science and Pollution Research, Volume 27, Issue 22, Pages 28104-281121, August 2020

18. One-pot Synthesized Silicon Quantum Dot Films for Luminescent Solar Concentrators

Lopez-Delgado R., Cordova-Rubio A.J., Carrillo-Torres R.C., Alvarez-Ramos M.E.

Conference Record of the IEEE Photovoltaic Specialists Conference, Volume 2020-June, Pages 2192-2194, 14 June 2020 Article number 9300512

19. Micelle encapsulation of ferromagnetic nanoparticles of iron carbide@iron oxide in chitosan as possible nanomedicine agent

Sauceda-Oloño P.Y., Cardenas-Sanchez H., Argüelles-Pesqueira A.I., Gutierrez-Valenzuela C., Alvarez-Ramos M.E., Lucero-Acuña A., Zavala-Rivera P.



"El saber de mis hijos
hará mi grandeza"



Colloids and Interfaces, Volume 4, Issue 2, June 2020, Article number 22

20. Enhanced photoluminescence effects in nanostructured cubic CdS matrix doped with Cu²⁺ obtained by chemical Bath deposition

Contreras-Rascón J.I., Díaz-Reyes J., Flores-Pacheco A., Serrano-De La Rosa L.E., Del Ángel-Vicente P., Lozada Morales R., Álvarez Ramos M.E., López-Salazar P.
Journal of Materials Research and Technology, Volume 9, Issue 1, Pages 364-3721, January 2020

21. Cu-doped CdS thin films by chemical bath deposition and ion exchange

Diaz-Grijalva O.I., Berman-Mendoza D., Flores-Pacheco A., López-Delgado R., Ramos-Carrasco A., Alvarez-Ramos M.E.
Journal of Materials Science: Materials in Electronics, Volume 31, Issue 2, Pages 1722-17301, January 2020

22. Sunlight-driven phytochemical synthesis of silver nanoparticles using aqueous extract of Albizia lebbek (L) Benth

Félix-Domínguez F., Carrillo-Torres R.C., Lucero-Acuña A., Sánchez-Zeferino R., Álvarez-Ramos M.E.
Materials Research Express, Volume 6, Issue 12, 27 November 2019, Article number 125060

23. Fiber optic sensor using ZnO for detection of adulterated tequila with methanol

Necochea-Chamorro, J.I., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.
Optical Fiber Technology
Volume 52, November 2019, Article number 101982

24. Co-emission and energy transfer of Sm³⁺ and/or Eu³⁺ activated zinc-germanate-tellurite glass as a potential tunable orange to reddish-orange phosphor

Álvarez-Ramos, M.E., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Caldiño, U., Alvarado-Rivera, J.
Journal of Non-Crystalline Solids, Volume 521, 1 October 2019, Article number 119462

25. Synthesis of Si and CdTe quantum dots and their combined use as down-shifting photoluminescent centers in Si solar cells

Guerrero-Gonzalez, R., Orona, F.A., Saucedo-Flores, E., Ruelas, R., Pelayo-Ceja, J.E., Lopez-Delgado, R., Cordova-Rubio, A., Álvarez-Ramos, M.E., Ayon, A.



"El saber de mis hijos
hará mi grandeza"



Materials for Renewable and Sustainable Energy, Volume 8, Issue 3, 1 September 2019, Article number 14

26. Silicon solar cell efficiency improvement employing photoluminescent properties of chlorophyll-A

Lopez-Delgado, R., Tostado-Plascencia, M., Álvarez-Ramos, M.E., Ayón, A.
Microelectronic Engineering, Volume 216, 15 August 2019, Article number 111047

27. Tunable emission and energy transfer in TeO₂-GeO₂-ZnO and TeO₂-GeO₂-MgCl₂ glasses activated with Eu³⁺/Dy³⁺ for solid state lighting applications

Carrillo-Torres, R.C., Saavedra-Rodríguez, G., Alvarado-Rivera, J., Caldiño, U., Sánchez-Zeferino, R., Alvarez-Ramos, M.E.
Journal of Luminescence
Volume 212, August 2019, Pages 116-125

28. Biosynthesis of gold and silver nanoparticles using Parkinsonia Florida leaf extract and antimicrobial activity of silver nanoparticles

López-Millán, A., Del Toro-Sánchez, C.L., Ramos-Enríquez, J.R., Carrillo-Torres, R.C., Zavala-Rivera, P., Esquivel, R., Álvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.
Materials Research Express, Volume 6, Issue 9, 5 July 2019, Article number 095025

29. Optimization of ZnO down-shifting photoluminescent quantum dots thin film layers and their influence on single-crystal silicon solar cells

Flores-Pacheco, A., Alvarez-Ramos, M.E., Zepeda-Galvez, J.A., Ayon, A.A.
2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752928

30. ZnS and ZnO nanocomposite for near white light tuning applications

Zazueta-Raynaud, A., Cordova-Rubio, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Carrillo-Torres, R.C., Sanchez-Zeferino, R., Alvarez-Ramos, M.E., Ayon, A.
2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752671

31. Spectroscopic evaluation a new and novel Nd³⁺/Yb³⁺ co-doped CdO-V2O5 glass system for 1 μm laser application

Soriano-Romero, O., Lozada-Morales, R., Caldiño, U., Méndez-Blas, A., Falcony, C., Álvarez, E., Palomino-Ovando, M., Meza-Rocha, A.N.
Journal of Alloys and Compounds, Volume 777, 10 March 2019, Pages 886-893

32. Stabilized blue emitting ZnS@SiO₂ quantum dots



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Saavedra Rodríguez, G., Carrillo Torres, R.C., Sánchez Zeferino, R., Álvarez Ramos, M.E.

Optical Materials, Volume 89, March 2019, Pages 396-401

33. Up and down-shifting emission properties of novel Er³⁺-doped CdO-V2O5-P2O5 glass system

Cervantes-Juárez, E., Meza-Rocha, A.N., Romero-Romo, W., Caldiño, U., Falcony, C., Álvarez, E., Palomino-Ovando, M., Lozada-Morales, R.

Ceramics International, Volume 45, Issue 2, 1 February 2019, Pages 1609-1615

34. Seedless synthesis of silver nanoparticles using sunlight and study of the effect of different ratios of precursors

Félix-Domínguez, F., Carrillo-Torres, R.C., Lucero-Acuña, A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.

Materials Research Express, Volume 6, Issue 4, 30 January 2019

35. Anomalous Stokes shift of colloidal quantum dots and their influence on solar cell performance

Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Alvarez-Ramos, M.E., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A.

Microsystem Technologies, 2019

36. Evaluation of pH-tuned ZnO down-shifting photoluminescent quantum dots and their influence on single-crystal silicon solar cells

Flores-Pacheco, A., Montes-Bojórquez, J.R., Álvarez-Ramos, M.E., Ayón, A.A.

Proceedings of SPIE - The International Society for Optical Engineering
Volume 10929, 2019, Article number 109290V

37. Low intensity sonosynthesis of iron carbide@iron oxide core-shell nanoparticles

Argüelles-Pesqueira, A.I., Diéguez-Armenta, N.M., Bobadilla-Valencia, A.K., Nataraj, S.K., Rosas-Durazo, A., Esquivel, R., Alvarez-Ramos, M.E., Escudero, R., Guerrero-German, P., Lucero-Acuña, J.A., Zavala-Rivera, P.

Ultrasonics Sonochemistry, Volume 49, December 2018, Pages 303-309

38. Effect of degradation on tribological performance of engine lubricants at elevated temperatures

Heredia-Cancino, J.A., Ramezani, M., Álvarez-Ramos, M.E.

Tribology International, Volume 124, August 2018, Pages 230-237



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



39. Solar cell efficiency improvement by photon absorption enhancement employing rare earth doped films

Lopez-Delgado, R., Melendres-Sanchez, J.C., Cordova-Rubio, A.J., Álvarez-Ramos, M.E., Ayon, A.

Journal of Physics: Conference Series, Volume 1052, Issue 1, 26 July 2018, Article number 012068

40. ZnS quantum dots coated with PVP to enhance solar cell performance

Melendres-Sanchez, J.C., Lopez-Delgado, R., Ayon, A., Saavedra-Rodriguez, G., Sánchez-Zeferino, R., Carrillo-Torres R.C., Alvarez-Ramos, M.E.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

41. Influence of photoluminescent Si and ZnO QD multilayered films on solar cell efficiency

Cordova-Rubio, A., Lopez-Delgado, R., Zazueta-Raynaud, A., Ayon, A., Alvarez-Ramos, M.E.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

42. Characterization of CBD-CdS doped with some rare earths III (Eu^{3+} , Ce^{3+}) as function of synthesis time

Linares-Avilés, M.E., Contreras-Rascón, J.I., Díaz-Reyes, J., Martínez-Juárez, J., Castillo-Ojeda, R.S., Galván-Arellano, M., Balderas-Lopez, J.A., Alvarez-Ramos, M.

Materials Research, Volume 21, Issue 2, 2018, Article number e20170626

43. Yellow to orange-reddish glass phosphors: Sm^{3+} , Tb^{3+} and $\text{Sm}^{3+}/\text{Tb}^{3+}$ in zinc tellurite-germanate glasses

Alvarez-Ramos, M.E., Alvarado-Rivera, J., Zayas, M.E., Caldiño, U., Hernández-Paredes, J.

Optical Materials, Volume 75, January 2018, Pages 88-93

44. Solar cell efficiency improvement employing down-shifting silicon quantum dots

Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos-Carrasco, A., Pelayo, J.E., Berman-Mendoza, D., Álvarez-Ramos, M.E., Ayon, A.

Microsystem Technologies, Volume 24, Issue 1, 1 January 2018, Pages 495-502

45. Enhanced conversion efficiency in Si solar cells employing photoluminescent down-shifting CdSe/CdS core/shell quantum dots



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A.

Scientific Reports, Volume 7, Issue 1, 1 December 2017, Article number 14104

46. Comparison of spatially and temporally resolved diffuse transillumination measurement systems for extraction of optical properties of scattering media

Ortiz-Rascón, E., Bruce, N.C., Garduño-Mejía, J., Carrillo-Torres, R., Hernández-Paredes, J., Álvarez-Ramos, M.E.

Applied Optics, Volume 56, Issue 33, 20 November 2017, Pages 9199-9204

47. Synergistic effects of nanotexturization and down shifting CdTe quantum dots in solar cell performance

Tronco-Jurado, U., Saucedo-Flores, E., Ruelas, R., López, R., Alvarez-Ramos, M.E., Ayón, A.A.

Microsystem Technologies, Volume 23, Issue 9, 1 September 2017, Pages 3945-3953

48. Experimental and theoretical study on the molecular structure, covalent and non-covalent interactions of 2,4-dinitrodiphenylamine: X-ray diffraction and QTAIM approach

Hernández-Paredes, J., Carrillo-Torres, R.C., Hernández-Negrete, O., Sotelo-Mundo, R.R., Glossman-Mitnik, D., Esparza-Ponce, H.E., Alvarez-Ramos, M.E.

Journal of Molecular Structure, Volume 1141, 5 August 2017, Pages 53-63

49. Aqueous-organic phase transfer of gold and silver nanoparticles using thiol-modified oleic acid

López-Millán, A., Zavala-Rivera, P., Esquivel, R., Carrillo, R., Alvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.

Applied Sciences, Volume 7, Issue 3, 2017, Article number 273

50. Stimulation of the photoluminescent properties of CBD-CdS thin films achieved by structural modifications resulting from Ag⁺ doping

Flores-Pacheco, A., Contreras-Rascón, J.I., Diaz-Reyes, J., Angel-Vicente, P.D., Enríquez, J.P., Castillo, S.J., Álvarez-Ramos, M.E.

Physica Status Solidi - Rapid Research Letters, Volume 11, Issue 8, August 2017, Article number 1700134

51. Utilization of down-shifting photoluminescent ZnO quantum dots on solar cells

Zazueta-Raynaud, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Alvarez-Ramos, M.E., Ayon, A.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Materials Research Express, Volume 4, Issue 7, July 2017, Article number 076203

52. ZnS nanoparticles synthesized through chemical aggregation using polyethyleneimine that works as both a stabilizer and a complexing agent

Rojas-Hernández, A.G., Mendoza-Peña, K.J., Troyo-Vega, E., Pérez-Hernández, C.G., Munguía-Rodríguez, S., Mendivil-Reynoso, T., Ramirez-Rodriguez, L.P., Ochoa-Landín, R., Alvarez-Ramos, M.E., De Leon, A., Castillo, S.J.
Chalcogenide Letters, Volume 14, Issue 1, January 2017, Pages 25-30

53. Enhancing the power conversion efficiency of solar cells employing down-shifting silicon quantum dots

Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos, A., Pelayo, J.E., Berman, D., Álvarez-Ramos, M.E., Ayon, A.
Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012087

54. Influence of photo-luminescent CdSe/CdS core shell quantum dots in solar cell efficiency

Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A.
Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012088

55. Reddish-orange, neutral and warm white emissions in Eu^{3+} , Dy^{3+} and $\text{Dy}^{3+}/\text{Eu}^{3+}$ doped $\text{CdO-GeO}_2\text{-TeO}_2$ glasses

Rodríguez-Carvajal, D.A., Meza-Rocha, A.N., Caldiño, U., Lozada-Morales, R., Álvarez, E., Zayas, M.E.
Solid State Sciences, Volume 61, 1 November 2016, Pages 70-76

56. Molecular structure, hydrogen-bonding patterns and topological analysis (QTAIM and NCI) of 5-methoxy-2-nitroaniline and 5-methoxy-2-nitroaniline with 2-amino-5-nitropyridine (1:1) co-crystal

Hernández-Paredes, J., Carrillo-Torres, R.C., López-Zavala, A.A., Sotelo-Mundo, R.R., Hernández-Negrete, O., Ramírez, J.Z., Alvarez-Ramos, M.E.
Journal of Molecular Structure, Volume 1119, 5 September 2016, Pages 505-516

57. Photoluminescent and electrical properties of novel Nd^{3+} doped ZnV_2O_6 and $\text{Zn}_2\text{V}_2\text{O}_7$

González-Rivera, Y.A., Meza-Rocha, A.N., Aquino-Meneses, L., Jiménez-Sandoval, S., Rubio-Rosas, E., Caldiño, U., Álvarez, E., Zelaya-Angel, O., Toledo-Solano, M., Lozada-Morales, R.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Ceramics International, Volume 42, Issue 7, 15 May 2016, Pages 8425-8430

58. Hollow Au-Ag bimetallic nanoparticles with high photothermal stability

Carrillo-Torres, R.C., García-Soto, M.J., Morales-Chávez, S.D., Garibay-Escobar, A., Hernández-Paredes, J., Guzmán, R., Barboza-Flores, M., Álvarez-Ramos, M.E.
RSC Advances, Volume 6, Issue 47, 2016, Pages 41304-41312

59. Growth and characterization of l-histidinium - 4-nitrobenzoate (1:1) multi-component molecular complex

Hernández-Paredes, J., Terán-Reprieto, M.E., Esparza-Ponce, H.E., Sotelo-Mundo, R.R., Hernández-Negrete, O., Reyes-Márquez, V., Álvarez-Ramos, M.E.
Journal of Molecular Structure, Volume 1102, 15 December 2015, Pages 323-330

60. Experimental and theoretical investigation on the molecular structure, spectroscopic and electric properties of 2,4-dinitrodiphenylamine, 2-nitro-4-(trifluoromethyl)aniline and 4-bromo-2-nitroaniline

Hernández-Paredes, J., Hernández-Negrete, O., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Duarte-Moller, A., Alvarez-Ramos, M.E.
Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, Volume 149, 5 October 2015, Pages 240-253

61. l-Proline-sodium nitrate obtained from solvent drop grinding

Hernández-Paredes, J., Carrillo-Pesqueira, F.J., Esparza-Ponce, H.E., Hernández-Negrete, O., Alvarez-Ramos, M.E.
Polyhedron, Volume 91, 8 May 2015, Article number 11220, Pages 84-88

62. Study of the phase equilibria in the L-alanine-Sodium nitrate system by optical microscopy and X-ray powder diffraction

Márquez-Ruiz, D., Hernández-Paredes, J., Moreno-Corella, G., Esparza-Ponce, H.E., Hernández-Negrete, O., Álvarez-Ramos, M.E.
Microscopy and Microanalysis, Volume 21, Issue S3, 2015, Pages 1805-1806

Capítulos de Libro

1. Down-shifting by quantum dots for silicon solar cell applications

Flores-Pacheco, A.a,b, Álvarez-Ramos, M.E.a, Ayón, A.b
Solar Cells and Light Management: Materials, Strategies and Sustainability
1 January 2019, Pages 443-477



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



BARBOZA FLORES MARCELINO

Artículos

1. Quantification of the radiosensitization effect of high-Z nanoparticles on photon irradiated cells: Combining Monte Carlo simulations and an analytical approach to the local effect model

Melo-Bernal W., Chernov G., Barboza-Flores M., Chernov V.

Physics in Medicine and Biology, Volume 66, Issue 137, July 2021, Article number 135007

2. Thermoluminescence properties of high-dose gamma-irradiated diamond films

Cruz-Zaragoza E., Marcazzó J., Pérez Ramírez E., Meléndrez R., Barboza-Flores M.

Journal of Physics: Conference Series, Volume 1723, Issue 1, 18 March 2021 Article number 012052

3. Identification of refractory zirconia from catalytic converters in dust: An emerging pollutant in urban environments

Meza-Figueroa D., Pedroza-Montero M., Barboza-Flores M., Navarro-Espinoza S., Ruiz-Torres R., Robles-Morúa A., Romero F., Schiavo B., González-Grijalva B., Acosta-Elias M., Mendoza-Córdova A.

Science of the Total Environment, Volume 76015, March 2021, Article number 143384

4. Thermoluminescence response of detonation diamond microparticles exposed to beta and alpha radiation

Gil-Tolano, M.I., Calderón-Martínez, M.C., Román-López, J., Cruz-Zaragoza, E., Meléndrez, R., Chernov, V., Barboza-Flores, M.

Diamond and Related Materials, Volume 106, June 2020, Article number 107823

5. Metal bioaccessibility, particle size distribution and polydispersity of playground dust in synthetic lysosomal fluids

Meza-Figueroa, D., Barboza-Flores, M., Romero, F.M., Acosta-Elias, M., Hernández-Mendiola, E., Maldonado-Escalante, F., Pérez-Segura, E., González-Grijalva, B., Meza-Montenegro, M., García-Rico, L., Navarro-Espinoza, S., Santacruz-Gómez, K., Gallego-Hernández, A., Pedroza-Montero, M.

Science of the Total Environment, Volume 713, 15 April 2020, Article number 136481



"El saber de mis hijos
hará mi grandeza"



6. Effect of thermal treatment on luminescence properties of long persistent $\text{CaAl}_2\text{O}_4:\text{Eu}^{2+}, \text{Dy}^{3+}$ synthesized by combustion method

Ruiz-Torres, R., Chernov, V., Salas-Castillo, P., Zúñiga-Rivera, N.J., Diaz-Torres, L.A., Meléndrez, R., Barboza-Flores, M.

Optical Materials, Volume 101, March 2020, Article number 109763

7. Improved Method of Study on the Photothermal Effect of Plasmonic Nanoparticles by Dynamic IR Thermography

Chernov, G., Ibarra-Valdez, J.L., Carrillo-Torres, R.C., Medrano-Pesqueira, T.C., Chernov, V., Barboza-Flores, M.

Plasmonics, Volume 14, Issue 4, 15 August 2019, Pages 935-944

8. Thermoluminescence and infrared stimulated luminescence in long persistent monoclinic $\text{SrAl}_2\text{O}_4:\text{Eu}^{2+}, \text{Dy}^{3+}$ and $\text{SrAl}_2\text{O}_4:\text{Eu}^{2+}, \text{Nd}^{3+}$ phosphors

Chernov, V., Salas-Castillo, P., Díaz-Torres, L.A., Zúñiga-Rivera, N.J., Ruiz-Torres, R., Meléndrez, R., Barboza-Flores, M.

Optical Materials, Volume 92, June 2019, Pages 46-52

9. Raman and Thermoluminescence Studies of HPHT Synthetic Nanodiamond Powders

Ruiz-Valdez, C.F., Chernov, V., Meléndrez, R., Álvarez-García, S., Santacruz-Gómez, K., Berman-Mendoza, D., Barboza-Flores, M.

Physica Status Solidi (A) Applications and Materials Science, Volume 215, Issue 22, 21 November 2018, Article number 1800267

10. X-Ray Thermoluminescence Dosimetry Characterization of Commercially Available CVD Diamond

Gil-Tolano, M.I., Meléndrez, R., Álvarez-García, S., Soto-Puebla, D., Chernov, V., Barboza-Flores, M.

Physica Status Solidi (A) Applications and Materials Science, Volume 215, Issue 22, 21 November 2018, Article number 1800246

11. Nanoscale dose deposition in cell structures under X-ray irradiation treatment assisted with nanoparticles: An analytical approach to the relative biological effectiveness

Melo-Bernal, W., Chernov, V., Chernov, G., Barboza-Flores, M.

Applied Radiation and Isotopes, Volume 138, August 2018, Pages 50-55

12. Afterglow, thermoluminescence and optically stimulated luminescence characterization of micro-, nano- and ultrananocrystalline diamond films grown on silicon by HFCVD



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Montes-Gutiérrez, J.A., Alcantar-Peña, J.J., de Obaldia, E., Zúñiga-Rivera, N.J., Chernov, V., Meléndrez-Amavizca, R., Barboza-Flores, M., Garcia-Gutierrez, R., Auciello, O.

Diamond and Related Materials, Volume 85, May 2018, Pages 117-124

13. Micro-structures of nanodiamonds grown on silicon by hot filament chemical vapor deposition

Montes-Gutierrez, J.A., Garcia-Gutierrez, R., Barboza-Flores, M., Meléndrez, R., Cabanillas, R.E., Contreras, O.E., Hirata, G.A., Rangel-Segura, R.

International Journal of Chemical Reactor Engineering, Volume 15, Issue 6, 20 December 2017, Article number 20170088

14. Thermally and optically stimulated luminescence in long persistent orthorhombic strontium aluminates doped with Eu, Dy and Eu, Nd

Zúñiga-Rivera, N.J., Salas-Castillo, P., Chernov, V., Díaz-Torres, L.A., Meléndrez, R., García-Gutierrez, R., Carrillo-Torres, R.C., Barboza-Flores, M.

Optical Materials, Volume 67, 1 May 2017, Pages 91-97

15. Thermally stimulated luminescence and persistent luminescence of β -irradiated YAG:Pr³⁺ nanophosphors produced by combustion synthesis

Santacruz-Gomez, K., Meléndrez, R., Gil-Tolano, M.I., Jimenez, J.A., Makale, M.T., Barboza-Flores, M., Castaneda, B., Soto-Puebla, D., Pedroza-Montero, M., McKittrick, J., Hirata, G.A.

Radiation Measurements, Volume 94, 1 November 2016, Pages 35-40

16. Photoluminescence enhancement from GaN by beryllium doping

García-Gutiérrez, R., Ramos-Carrasco, A., Berman-Mendoza, D., Hirata, G.A., Contreras, O.E., Barboza-Flores, M.

Optical Materials, Volume 60, 1 October 2016, Pages 398-403

17. Hollow Au-Ag bimetallic nanoparticles with high photothermal stability

Carrillo-Torres, R.C., García-Soto, M.J., Morales-Chávez, S.D., Garibay-Escobar, A., Hernández-Paredes, J., Guzmán, R., Barboza-Flores, M., Álvarez-Ramos, M.E. RSC Advances

Volume 6, Issue 47, 2016, Pages 41304-41312

18. Magnetite Nanoparticles Functionalized with Vitamin E Analogues: Anticancer Effects

Angulo-Molina, A., Méndez-Rojas, M.A., Palacios-Hernández, T., Contreras-López, O.E., Hirata-Flores, G.A., Flores, J.C., Flores, K.L., Velázquez, C., Robles-Zepeda,



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



R., Silva-Campa, E., Sarabia, A., Barboza-Flores, M., Pedroza-Montero, M., Reyes-Leyva, J.R., Hernández, J.

Materials Today: Proceedings, Volume 3, Issue 2, 2016, Pages 703-707

19. Thermoluminescence studies on HPHT diamond crystals exposed to β -irradiation

Gil-Tolano, M.I., Meléndrez, R., Castañeda, B., Alvarez-Garcia, S., Pedroza-Montero, M., Soto-Puebla, D., Chernov, V., Barboza-Flores, M.

Physica Status Solidi (A) Applications and Materials Science, Volume 212, Issue 11, 2015, Pages 2507-2511

20. Measurement of scientific research performance at the Universidad de Sonora, México

Isiordia-Lachica, P., Rodriguez-Carvajal, R., Angulo, G., Chavez, K., Barboza-Flores, M.

Portland International Conference on Management of Engineering and Technology
Volume 2015-September, 21 September 2015, Article number 7273245, Pages 204-210

21. Carboxylated nanodiamond and re-oxygenation process of gamma irradiated red blood cells

Acosta-Elías, M., Sarabia-Sainz, A., Pedroso-Santana, S., Silva-Campa, E., Santacruz-Gomez, K., Angulo-Molina, A., Castaneda, B., Soto-Puebla, D., Barboza-Flores, M., Melendrez, R., Álvarez-García, S., Pedroza-Montero, M.

Physica Status Solidi (A) Applications and Materials Science, Volume 212, Issue 11, 2015, Pages 2437-2444



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



BERMAN MENDOZA DAINET

ARTÍCULOS

1. Columnar nitrogen-doped ZnO nanostructured thin films obtained through atomic layer deposition

Rodríguez-López J., Rangel R., Ramos-Carrasco A., Berman-Mendoza D., Quintana-Owen P., Bartolo-Pérez P., Alvarado-Gil J.J.
Nanotechnology, Volume 32, Issue 4, 01 October 2021, Article number 405704

2. Characterization of ZnO Films Grown by Chemical Vapor Deposition as Active Layer in Pseudo-MOSFET

Ramos-Carrasco A., Gallardo-Cubedo J.A., Vera-Marquina A., Leal-Cruz A.L., Noriega J.R., Zuñiga-Islas C., Rojas-Hernández A.G., Gomez-Fuentes R., Berman-Mendoza D.
Journal of Electronic Materials, Volume 50, Issue 9, Pages 5196-5208, September 2021

3. Study of atomic hydrogen concentration in grain boundaries of polycrystalline diamond thin films

de Obaldía E.I., Alcantar-Peña J.J., Wittel F.P., Veyan J.F., Gallardo-Hernandez S., Koudriavtsev Y., Berman-Mendoza D., Auciello O.
Applied Sciences, Volume 11, Issue 9, 1 May 2021, Article number 3990

4. Synthesis of silicon quantum dots using chitosan as a novel reductor agent

Hernández-Abril P.A., Iriqui-Razcón J.L., León-Sarabia E., Leal-Soto S.D., Álvarez-Ramos M.E., Berman-Mendoza D., Higuera-Valenzuela H.J.
Revista Mexicana de Física, Volume 67, Issue 2, Pages 249-254, 2021

5. Efficiency enhancement of silicon solar cells by silicon quantum dots embedded in ZnO films as down-shifting coating

Higuera-Valenzuela H.J., Ramos-Carrasco A., García-Gutierrez R., Romo-García F., Rangel R., Contreras O.E., Berman-Mendoza D.
Journal of Materials Science: Materials in Electronics, Volume 31, Issue 22, Pages 20561-20570, November 2020

6. Ab-initio study of citrate ion as an oxygen-rich complexing agent

Rojas-Hernández A.G., Leon A.D., Sabory-García R.A., Ramírez-Bon R., Berman-Mendoza D., Castillo S.J.
Acta Chimica Slovenica, Volume 67, Issue 1, Pages 319-324, 20 March 2020



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



7. Cu-doped CdS thin films by chemical bath deposition and ion exchange

Diaz-Grijalva O.I., Berman-Mendoza D., Flores-Pacheco A., López-Delgado R., Ramos-Carrasco A., Alvarez-Ramos M.E.

Journal of Materials Science: Materials in Electronics, Volume 31, Issue 2, Pages 1722-17301, January 2020

8. Gallium nitride thin films by microwave plasma-assisted ALD

Romo-García F., Higuera-Valenzuela H.J., Cabrera-German D., Berman-Mendoza D., Ramos-Carrasco A., Contreras O.E., García-Gutierrez R.

Optical Materials Express, Volume 9, Issue 11, Pages 4187-4193, 1 November 2019

9. Optoelectronic attenuation behavior of Al₂O₃/ZnO nanolaminates grown by Atomic Layer Deposition

Romo-García F., Higuera-Valenzuela H.J., Cabrera-German D., Berman-Mendoza D., Ramos-Carrasco A., Tiznado H., Hirata G.A., Contreras O.E., Garcia-Gutierrez R.

Thin Solid Films, Volume 669, Pages 419-424, 1 January 2019

10. Raman and Thermoluminescence Studies of HPHT Synthetic Nanodiamond Powders

Ruiz-Valdez C.F., Chernov V., Meléndrez R., Álvarez-García S., Santacruz-Gómez K., Berman-Mendoza D., Barboza-Flores M.

Physica Status Solidi (A) Applications and Materials Science, Volume 215, Issue 22, 21 November 2018, Article number 1800267

11. Novel two-stage method for the synthesis of silicon quantum dots embedded on ZnO matrix

Higuera-Valenzuela H.J., Romo-García F., Cabrera-German D., Ramos-Carrasco A., Rosas-Burgos R., García-Gutierrez R., Contreras O.E., Berman-Mendoza D.

Materials Letters, Volume 228, Pages 157-159, 1 October 2018

12. Solar cell efficiency improvement employing down-shifting silicon quantum dots

Lopez-Delgado R., Higuera-Valenzuela H.J., Zazueta-Raynaud A., Ramos-Carrasco A., Pelayo J.E., Berman-Mendoza D., Álvarez-Ramos M.E., Ayon A.

Microsystem Technologies, Volume 24, Issue 1, Pages 495-502, 1 January 2018

13. Fundamentals towards large area synthesis of multifunctional Ultrananocrystalline diamond films via large area hot filament chemical vapor deposition bias enhanced nucleation/bias enhanced growth for fabrication of broad range of multifunctional devices



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Alcantar-Peña J.J., de Obaldia E., Montes-Gutierrez J., Kang K., Arellano-Jimenez M.J., Ortega Aguilar J.E., Suchy G.P., Berman-Mendoza D., Garcia R., Yacaman M.J., Auciello O.

Diamond and Related Materials, Volume 78, Pages 1-11, September 2017

14. Low temperature hot filament chemical vapor deposition of Ultrananocrystalline Diamond films with tunable sheet resistance for electronic power devices

Alcantar-Peña J.J., Montes J., Arellano-Jimenez M.J., Aguilar J.E.O., Berman-Mendoza D., García R., Yacaman M.J., Auciello O.

Diamond and Related Materials, Volume 69, Pages 207-213, 1 October 2016

15. Photoluminescence enhancement from GaN by beryllium doping

García-Gutiérrez R., Ramos-Carrasco A., Berman-Mendoza D., Hirata G.A., Contreras O.E., Barboza-Flores M.

Optical Materials, Volume 60, Pages 398-403, 1 October 2016

16. Luminescent properties of ZnO microstructures grown on Au/Si substrate

García-Gutiérrez R., Horta-Fraijo P., Ramos-Carrasco A., Berman-Mendoza D.

Journal of Ovonic Research, Volume 12, Issue 5, Pages 239-244, September-October 2016

17. Study of non-ideal effects in ZnO TFT's

Mendivil-Reynoso T., Berman-Mendoza D., Acosta-Enríquez M.C., Rojas-Blanco L., Ramírez-Rodríguez L.P., Ramírez-Bon R., Castillo S.J.

Journal of Ovonic Research, Volume 12, Issue 2, Pages 103-111, 1 March 2016

18. Synthesis and characterization of SrTeO₃ using reduced tellurium into a rongalite solution

Arellano-Tánori O., Rojas-Hernández A.G., Gómez-Fuentes R., Ochoa-Landin R., Berman-Mendoza D., Mendivil-Reynoso, T., Acosta-Enriquez M.C., Ramírez-Rodríguez L.P., Castillo S.J.

Chalcogenide Letters, Volume 12, Issue 11, Pages 589-595, 1 November 2015
Article number A005

19. Repulsive Function in Potential Field Based Control with Algorithm for Safer Avoidance

García-Delgado L.A., Noriega J.R., Berman-Mendoza D., Leal-Cruz A.L., Vera-Marquina A., Gómez-Fuentes R., García-Juárez A., Rojas-Hernández A.G., Zaldívar-Huerta I.E.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Journal of Intelligent and Robotic Systems: Theory and Applications, Volume 80,
Issue 1, Pages 59-70, 7 October 2015



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



CASTILLO SANTOS JESÚS

Artículos

1. Synthesis and characterization of silica-lead sulfide core-shell nanospheres for applications in optoelectronic devices

Romero-Jaime A.K., Acosta-Enríquez M.C., Vargas-Hernández D., Tánori-Córdova J.C., Pineda León H.A., Castillo S.J.

Journal of Materials Science: Materials in Electronics, Volume 32, Issue 16, Pages 21425-21431, August 2021

2. Comparative study of the optical response in thin films of CdS:In

Molina J., Horta S.D., Espejo-Bayona L., Castillo S.J., Avila D.A.

Journal of Physics: Conference Series, Volume 1723, Issue 118, March 2021 Article number 012028

3. Synthesis and characterization of nanoparticles and thin films of PbS by a high-performance procedure using CBD

Zaragoza-Palacios B.G., Torres-Duarte A.R., Castillo S.J.

Journal of Materials Science: Materials in Electronics, 2021

4. Study of selected morphologic, structural and optical effects of silver coated CBD-CdS thin films

Torres-Duarte A.R., Pineda-Leon H.A., De Leon A., Ochoa-Landín R., Castillo S.J.

Acta Chimica Slovenica, Volume 67, Issue 4, Pages 1196-1201, 2021

5. Synthesis and thermal annealing of plumbonacrite layers deposited by chemical bath technique

Mendivil-Reynoso T., Ramírez-Rodríguez L.P., Ochoa-Landín R., Ramirez-Bon R., Castillo S.J.

Materials Today Communications, Volume 25, December 2020, Article number 101676

6. Optical, structural, and morphological characterization of cadmium carbonate thin films by CBD two formulations

Ruvalcaba-Manzo S.G., Castillo S.J., Ochoa-Landín R., Flores-Acosta M., Ramírez-Bon R.

Optical Materials, Volume 10, 9 November 2020, Article number 110295

7. Zinc oxide nanoparticles induce an adverse effect on blood glucose levels depending on the dose and route of administration in healthy and diabetic rats



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Virgen-Ortiz A., Apolinar-Irribé A., Díaz-Reval I., Parra-Delgado H., Limón-Miranda S., Sánchez-Pastor E.A., Castro-Sánchez L., Castillo S.J., Dagnino-Acosta A., Bonales-Alatorre E., Rodríguez-Hernández A.
Nanomaterials, Volume 10, Issue 10, Pages 1-10, October 2020, Article number 2005

8. Ab-initio study of citrate ion as an oxygen-rich complexing agent

Rojas-Hernández, A.G., Leon, A.D., Sabory-García, R.A., Ramírez-Bon, R., Berman-Mendoza, D., Castillo, S.J.
Acta Chimica Slovenica
Volume 67, Issue 1, 20 March 2020, Pages 319-324

9. Novel route for simplified and efficient synthesis of spiky-like copper sulfide nanoballs by soft chemistry method and their basic physicochemical characterizations

Romero-Jaime, A.K., Vargas-Hernández, D., Acosta-Enríquez, M.C., Tánori-Córdova, J.C., Valenzuela-Badilla, J., Castillo, S.J.
Materials Science in Semiconductor Processing, Volume 107, 1 March 2020, Article number 104830

10. Optical and Structural Characterization of CdTe Nanoparticles Synthesized Using Chemical Bath Deposition Technique

Olvera-Felix, C., Ramirez-Bon, R., Ochoa-Landín, R., Ruvalcaba-Manzo, S.G., Castillo, S.J.
Journal of Electronic Materials, Volume 49, Issue 2, 1 February 2020, Pages 1257-1265

11. Optical and Structural Characterization of Honeycomb-Like Ag₂S Nanoparticles by a Simplified and Stable Wet Chemical Synthesis Method

Ruvalcaba-Manzo, S.G., Ramírez-Bon, R., Tánori, J., Ochoa-Landin, R., Castillo, S.J.
Journal of Electronic Materials, 2020

12. Production and characterization of Non-isocyanate polyurethane/SiO₂ films through a sol-gel process for thermal insulation applications

Noriega, N.E., Carrillo, A., Castillo, S.J., Mota, M.L.
Polymers
Volume 11, Issue 10, 1 October 2019, Article number 1596

13. Graphite to Graphene: Green Synthesis Using Opuntia ficus-indica



"El saber de mis hijos
hará mi grandeza"



Calderón-Ayala, G., Cortez-Valadez, M., Acosta-Elías, M., Mani-Gonzalez, P.G., Zayas, M.E., Castillo, S.J., Flores-Acosta, M.

Journal of Electronic Materials, Volume 48, Issue 3, 15 March 2019, Pages 1553-1561

14. Obtaining nano structures of cobalt telluride by a simplified ion exchange reaction at aqueous solution

Arellano-Tánori, O., Chávez-Mendiola, E., Gámez-Corrales, R., García-Cruz, X.M., Apodaca-Ibarra, K., Castillo, S.J.

Chalcogenide Letters, Volume 16, Issue 2, February 2019, Pages 57-61

15. Synthesis and Characterization of Silver Selenide Thin Films by Chemical Bath Deposition and Ionic Exchange

Fernández-Díaz, E., Espinoza-Martinez, A.B., Flores-Pacheco, A., Ramírez-Bon, R., Castillo, S.J., Ochoa-Landín, R.

Journal of Electronic Materials, 2019

16. Optical and structural properties of ammonia-free CdS:Cu thin film grown on flexible substrate by chemical bath method

Corral-Guerrero, R.A., Ochoa-Landín, R., Apolinar-Irribé, A., Castillo, S.J.

Chalcogenide Letters, Volume 15, Issue 8, August 2018, Pages 429-434

17. Synthesis and characterization of molybdenum sulfide nanoparticles by a new chemical reaction formulation

Pineda-León, H.A., Carrillo-Castillo, A., Ochoa-Landín, R., Acosta-Enriquez, M.C., Gutiérrez-Heredia, G., Ruvalcaba-Manzo, S.G., Castillo, S.J.

Chalcogenide Letters, Volume 15, Issue 8, August 2018, Pages 419-424

18. Preparation of thin films bismuth sulfide by chemical bath deposition technique, a simplified formulation

Chavez-Mendiola, E., Acosta-Enriquez, M.C., Carrillo-Castillo, A., Arellano-Tánori, O., Rivera-Nieblas, J.O., Castillo, S.J.

Chalcogenide Letters, Volume 15, Issue 7, July 2018, Pages 395-404

19. Morphological and structural study of the growth of some CdTe thin films on Al₂O₃ /HD-Si, HfO₂ /HD-Si and SiO₂/HD-Si substrates, by pulsed laser deposition

Lomeli-Galaz, L.I., Quevedo-Lopez, M.A., Rojas-Hernandez, A.G., de Leon, A., Apolinar-Irribé, A., Ochoa-Landín, R., Valencia-Palomo, G., Castillo, S.J.

Chalcogenide Letters, Volume 15, Issue 6, June 2018, Pages 353-364



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



20. New route for the synthesis of ammonia-free CdS tetrapods nanoparticles at room temperature by chemical bath deposition

Castillo, S.J., Apolinar-Irribé, A., Ochoa-Landín, R.

Digest Journal of Nanomaterials and Biostructures, Volume 13, Issue 2, April-June 2018, Pages 591-594

21. Developing analysis criteria to adjust the growth of CdS and CdTe thin films using the PLD technique, for solar cell purposes

Ruiz-Preciado, M., Quevedo-Lopez, M.A., Rojas-Hernandez, A.G., De Leon, A., Apolinar-Irribé, A., Ochoa-Landin, R., Valencia-Palomo, G., Castillo, S.J.

Digest Journal of Nanomaterials and Biostructures

Volume 12, Issue 4, October-December 2017, Pages 1057-1067

22. Synthesis and characterization of Sn₂S₃ as nanoparticles, powders and thin films, using soft chemistry reactions

Godoy-Rosas, R., Barraza-Félix, S., Ramírez-Bon, R., Ochoa-Landin, R., Pineda-León, H.A., Flores-Acosta, M., Ruvalcaba-Manzo, S.G., Acosta-Enríquez, M.C., Castillo, S.J.

Chalcogenide Letters, Volume 14, Issue 9, September 2017, Pages 365-371

23. Stimulation of the photoluminescent properties of CBD-CdS thin films achieved by structural modifications resulting from Ag⁺ doping

Flores-Pacheco, A., Contreras-Rascón, J.I., Diaz-Reyes, J., Angel-Vicente, P.D., Enríquez, J.P., Castillo, S.J., Álvarez-Ramos, M.E.

Physica Status Solidi - Rapid Research Letters, Volume 11, Issue 8, August 2017, Article number 1700134

24. A versatile method to obtain nano structures of CoSe from aqueous solution

Arellano-Tánori, O., Acosta-Enríquez, E.B., Castillo-Ortega, R., Acosta-Enríquez, M.C., Chavez-Mendiola, E., Ramos-García, R.I., Castillo, S.J.

Chalcogenide Letters, Volume 14, Issue 3, March 2017, Pages 107-111

25. Study of optical, microstructural and electrical properties for multiple dip deposition of CuS films prepared by a simple CBD

Castillo, A.C., Mota González, M.L., Ramírez, M.M., Castillo, S.J., Ambrosio Lázaro, R.C., Luque, P.A., Gómez-Gutiérrez, C.M., Quevedo López, M.A.

Chalcogenide Letters, Volume 14, Issue 2, February 2017, Pages 55-60

26. Direct XPS analysis of biological materials for environmental purposes



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



García-Bedoya, D., Ramírez-Rodríguez, L.P., Mendivil-Reynoso, T., Quiroz-Castillo, J.M., De La Mora-Covarrubias, A., Castillo, S.J.
Applied Ecology and Environmental Research, Volume 15, Issue 1, 2017, Pages 501-509

27. Photoluminescence in nanostructured alpha-silicon nitride coatings (α -Si₃N₄)

Acosta-Enriquez, E.B., Carrillo-Torres, R.C., Acosta Enriquez, M.C., Castillo Ortega, R., Zayas, M.A.E., Castillo, S.J., Pech-Canul, M.I.
Digest Journal of Nanomaterials and Biostructures, Volume 12, Issue 1, 1 January 2017, Pages 111-117

28. Green synthesis of reduced graphene oxide using ball milling

Calderón-Ayala, G., Cortez-Valadez, M., Mani-Gonzalez, P.G., Hurtado, R.B., Contreras-Rascón, J.I., Carrillo-Torres, R.C., Zayas, M.E., Castillo, S.J., Hernández-Martínez, A.R., Flores-Acosta, M.
Carbon Letters, Volume 21, Issue 1, January 2017, Pages 93-97

29. ZnS nanoparticles synthesized through chemical aggregation using polyethyleneimine that works as both a stabilizer and a complexing agent

Rojas-Hernández, A.G., Mendoza-Peña, K.J., Troyo-Vega, E., Pérez-Hernández, C.G., Munguía-Rodríguez, S., Mendivil-Reynoso, T., Ramírez-Rodríguez, L.P., Ochoa-Landín, R., Alvarez-Ramos, M.E., De Leon, A., Castillo, S.J.
Chalcogenide Letters, Volume 14, Issue 1, January 2017, Pages 25-30

30. Optical and structural properties of PbSe films obtained by ionic exchange of lead oxyhydroxycarbonate in a selenium-rongalite solution

Heredia-Cancino, J.A., Mendivil-Reynoso, T., Ochoa-Landin, R., Ramírez-Bon, R., Castillo, S.J.
Materials Science in Semiconductor Processing, Volume 56, 1 December 2016, Pages 90-93

31. Geometric structure of higher-dimensional spheres

Avila, G., Castillo, S.J., Nieto, J.A.
Journal of Interdisciplinary Mathematics, Volume 19, Issue 5-6, 1 November 2016, Pages 955-975

32. Study of the growth of pbs thin films on common glass, HfO₂/Si and SiO₂/Si substrates, prepared by CBD

Ruiz-Preciado, L., Quevedo-López, M.A., Rojas-Hernández, A.G., Ramírez-Rodríguez, L.P., Mendivil-Reynoso, T., Apolinar-Irribé, A., De Leon, A., Castillo, S.J.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Digest Journal of Nanomaterials and Biostructures, Volume 11, Issue 4, October-December 2016, Pages 1205-1211

33. PbSe films by ion exchange of synthetic plumbonacrite layers immersed in a selenium ionic solution

Mendivil-Reynoso, T., Ochoa-Landín, R., Ramírez-Rodríguez, L.P., Gutierrez-Acosta, K., Ramírez-Bon, R., Castillo, S.J.
Journal of Crystal Growth, Volume 443, 1 June 2016, Pages 20-24

34. Synthesis and characterization of CdS nanoparticles by two different formulations using polyethylenimine as complexing agent

Rivera-Nieblas, J.O., Garcia-Bedoya, D., Acosta Enríquez, M.C., Ochoa-Landin, R., Apolinar-Irribé, A., Paraguay Delgado, F., Castillo-Ortega, R., Castillo, S.J.
Chalcogenide Letters, Volume 13, Issue 6, June 2016, Pages 257-263

35. Comparative study of PbS thin films growth by two different formulations using chemical bath deposition

Pineda-Leon, H.A., Gutierrez-Heredia, G., De Leon, A., Ochoa-Landin, R., Ramirez-Bon, R., Flores-Acosta, M., Castillo, S.J.
Chalcogenide Letters, Volume 13, Issue 4, April 2016, Article number 3, Pages 161-168

36. Study of non-ideal effects in ZnO TFT's

Mendivil-Reynoso, T., Berman-Mendoza, D., Acosta-Enríquez, M.C., Rojas-Blanco, L., Ramírez-Rodríguez, L.P., Ramírez-Bon, R., Castillo, S.J.
Journal of Ovonic Research, Volume 12, Issue 2, 1 March 2016, Pages 103-111

37. Synthesis and characterization of SrTeO₃ using reduced telurium into a rongalite solution

Arellano-Tánori, O., Rojas-Hernández, A.G., Gómez-Fuentes, R., Ochoa-Landin, R., Berman-Mendoza, D., Mendivil-Reynoso, T., Acosta-Enriquez, M.C., Ramírez-Rodríguez, L.P., Castillo, S.J.
Chalcogenide Letters, Volume 12, Issue 11, 1 November 2015, Article number A005, Pages 589-595

38. Synthesis of L-Proline-KCl and characterization of its non-linear optical properties

Gutiérrez-Acosta, K.H., De Leon, A., Castillo, S.J.
Journal of Ovonic Research, Volume 11, Issue 5, 1 September 2015, Pages 189-194



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



39. Theoretical study of the interaction of transition metals with silica

Arce, D.E., de Leon, A., Acosta-Enríquez, M.C., Castillo, S.J.

Journal of Ovonic Research, Volume 11, Issue 2, 1 March 2015, Pages 49-59

40. CdCl₂ treatment on chemically deposited CdS active layers in thin film transistors

Mendivil-Reynoso, T., Ramírez-Rodríguez, L.P., Quevedo-López, M.A., Ramírez-Bon, R., Castillo, S.J.

International Journal of Electrochemical Science, Volume 10, Issue 4, 2015, Pages 3291-3300

41. A simple method for the synthesis of CdS nanoparticles using a novel surfactant

de la Cruz Terrazas, E.C., Ambrosio Lázaro, R.C., Mota González, M.L., Luque, P.A., Castillo, S.J., Carrillo-Castillo, A.

Chalcogenide Letters, Volume 12, Issue 4, 2015, Pages 147-153



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



GARCÍA GUTIERREZ RAFAEL

Artículos

1. Efficiency enhancement of silicon solar cells by silicon quantum dots embedded in ZnO films as down-shifting coating

Higuera-Valenzuela H.J., Ramos-Carrasco A., García-Gutierrez R., Romo-García F., Rangel R., Contreras O.E., Berman-Mendoza D.

Journal of Materials Science: Materials in Electronics, Volume 31, Issue 22, Pages 20561-20570, November 2020

2. Gallium nitride thin films by microwave plasma-assisted ALD

Romo-García, F., Higuera-Valenzuela, H.J., Cabrera-German, D., Berman-Mendoza, D., Ramos-Carrasco, A., Contreras, O.E., García-Gutierrez, R.

Optical Materials Express, Volume 9, Issue 11, 1 November 2019, Pages 4187-4193

3. Optoelectronic attenuation behavior of Al₂O₃/ZnO nanolaminates grown by Atomic Layer Deposition

Romo-García, F., Higuera-Valenzuela, H.J., Cabrera-German, D., Berman-Mendoza, D., Ramos-Carrasco, A., Tiznado, H., Hirata, G.A., Contreras, O.E., García-Gutierrez, R.

Thin Solid Films, Volume 669, 1 January 2019, Pages 419-424

4. Novel two-stage method for the synthesis of silicon quantum dots embedded on ZnO matrix

Higuera-Valenzuela, H.J., Romo-García, F., Cabrera-German, D., Ramos-Carrasco, A., Rosas-Burgos, R., García-Gutierrez, R., Contreras, O.E., Berman-Mendoza, D.

Materials Letters, Volume 228, 1 October 2018, Pages 157-159

5. Afterglow, thermoluminescence and optically stimulated luminescence characterization of micro-, nano- and ultrananocrystalline diamond films grown on silicon by HFCVD

Montes-Gutiérrez, J.A., Alcantar-Peña, J.J., de Obaldia, E., Zúñiga-Rivera, N.J., Chernov, V., Meléndrez-Amavizca, R., Barboza-Flores, M., García-Gutierrez, R., Auciello, O.

Diamond and Related Materials, Volume 85, May 2018, Pages 117-124

6. Micro-structures of nanodiamonds grown on silicon by hot filament chemical vapor deposition(Article)

Montes-Gutierrez, J.A., Garcia-Gutierrez, R., Barboza-Flores, M., Meléndrez, R., Cabanillas, R.E., Contreras, O.E., Hirata, G.A., Rangel-Segura, R.



"El saber de mis hijos
hará mi grandeza"



International Journal of Chemical Reactor Engineering, Volume 15, Issue 6, 20
December 2017, Article number 20170088

7. Thermally and optically stimulated luminescence in long persistent orthorhombic strontium aluminates doped with Eu, Dy and Eu, Nd

Zúñiga-Rivera, N.J., Salas-Castillo, P., Chernov, V., Díaz-Torres, L.A., Meléndrez, R., García-Gutierrez, R., Carrillo-Torres, R.C., Barboza-Flores, M.
Optical Materials, Volume 67, 1 May 2017, Pages 91-97

8. Photoluminescence on cerium-doped ZnO nanorods produced under sequential atomic layer deposition–hydrothermal processes

Cervantes-López, J.L., Rangel, R., Espino, J., Martínez, E., García-Gutiérrez, R., Bartolo-Pérez, P., Alvarado-Gil, J.J., Contreras, O.E.
Applied Physics A: Materials Science and Processing, Volume 123, Issue 1, 1 January 2017, Article number 86

9. Photoluminescence enhancement from GaN by beryllium doping

García-Gutiérrez, R., Ramos-Carrasco, A., Berman-Mendoza, D., Hirata, G.A., Contreras, O.E., Barboza-Flores, M.
Optical Materials, Volume 60, 1 October 2016, Pages 398-403

10. Luminescent properties of ZnO microstructures grown on Au/Si substrate

García-Gutierrez, R., Horta-Fraijo, P., Ramos-Carrasco, A., Berman-Mendoza, D.
Journal of Ovonic Research, Volume 12, Issue 5, September-October 2016, Pages 239-244

11. Single ZnO Nanowire-Based gas sensors to detect low concentrations of hydrogen

Cardoza-Contreras, M.N., Romo-Herrera, J.M., Ríos, L.A., García-Gutiérrez, R., Zepeda, T.A., Contreras, O.E.
Sensors, Volume 15, Issue 12, 4 December 2015, Pages 30539-30544



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



JUÁREZ ONOFRE JOSUÉ ELÍAS

Artículos

1. Nanocarriers as drug delivery systems for propolis: A therapeutic approach

Mendez-Pfeiffer P., Juárez J., Hernandez J., Taboada P., Virués C., Valencia D., Velazquez C.

Journal of Drug Delivery Science and Technology, Volume 6, 5 October 2021, Article number 102762

2. Effect of Yucca baccata butanolic extract on the shelf life of chicken and development of an antimicrobial packaging for beef

Gutiérrez-García G.J., Quintana-Romero L.A., Morales-Figueroa G.G., Esparza-Romero J., Pérez-Morales R., López-Mata M.A., Juárez J., Sánchez-Escalante J.J., Peralta E., Quihui-Cota L., Soto-Valdez H.

Food Control, Volume 12, 7 September 2021, Article number 108142

3. Microfluidics-assisted conjugation of chitosan-coated polymeric nanoparticles with antibodies: Significance in drug release, uptake, and cytotoxicity in breast cancer cells

Escareño N., Hassan N., Kogan M.J., Juárez J., Topete A., Daneri-Navarro A.

Journal of Colloid and Interface Science, Volume 591, Pages 440-450, June 2021

4. Recovery of phytochemical from three safflower (Carthamus tinctorius L.) by-products: Antioxidant properties, protective effect of human erythrocytes and profile by UPLC-DAD-MS

Del-Toro-Sánchez C.L., Rodríguez-Félix F., Cinco-Moroyoqui F.J., Juárez J., Ruiz-Cruz S., Wong-Corral F.J., Borboa-Flores J., Castro-Enríquez D.D., Barreras-Urbina C.G., Tapia-Hernández J.A.

Journal of Food Processing and Preservation, 2021

5. Biodegradable photoresponsive nanoparticles for chemo-, photothermal- and photodynamic therapy of ovarian cancer

Sánchez-Ramírez D.R., Domínguez-Ríos R., Juárez J., Valdés M., Hassan N., Quintero-Ramos A., del Toro-Arreola A., Barbosa S., Taboada P., Topete A., Daneri-Navarro A.

Materials Science and Engineering C, Volume 11, 6 November 2020, Article number 111196

6. Stabilization of betalains by encapsulation—a review



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Castro-Enríquez, D.D., Montaña-Leyva, B., Del Toro-Sánchez, C.L., Juárez-Onofre, J.E., Carvajal-Millan, E., Burruel-Ibarra, S.E., Tapia-Hernández, J.A., Barreras-Urbina, C.G., Rodríguez-Félix, F.

Journal of Food Science and Technology, Volume 57, Issue 5, 1 May 2020, Pages 1587-1600

7. Effect of ultrasound on physicochemical and foaming properties of a protein concentrate from giant squid (*Dosidicus gigas*) mantle

Arredondo-Parada, I., Torres-Arreola, W., Suárez-Jiménez, G.M., Ramírez-Suárez, J.C., Juárez-Onofre, J.E., Rodríguez-Félix, F., Marquez-Rios, E.

LWT, Volume 121, March 2020, Article number 108954

8. Effect of ultrafiltration of Pitaya extract (*Stenocereus thurberi*) on its phytochemical content, antioxidant capacity, and UPLC-DAD-MS profile

Castro-Enríquez, D.D., Montaña-Leyva, B., Del Toro-Sánchez, C.L., Juárez-Onofre, J.E., Carvajal-Millán, E., López-Ahumada, G.A., Barreras-Urbina, C.G., Tapia-Hernández, J.A., Rodríguez-Félix, F.

Molecules, Volume 25, Issue 2, 2020, Article number 281

9. Improving cell penetration of gold nanorods by using an amphipathic arginine rich peptide

Riveros, A.L., Eggeling, C., Riquelme, S., Adura, C., López-Iglesias, C., Guzmán, F., Araya, E., Almada, M., Juárez, J., Valdez, M.A., Fuentesvilla, I.A., López, O., Kogan, M.J.

International Journal of Nanomedicine, Volume 15, 2020, Pages 1837-1851

10. Antioxidant, antihemolysis, and retinoprotective potentials of bioactive lipidic compounds from wild shrimp (*Litopenaeus stylirostris*) muscle

García-Romo, J.S., Noguera-Artiaga, L., Gálvez-Iriqui, A.C., Hernández-Zazueta, M.S., Valenzuela-Cota, D.F., González-Vega, R.I., Plascencia-Jatomea, M., Burboa-Zazueta, M.G., Sandoval-Petris, E., Robles-Sánchez, R.M., Juárez, J., Hernández-Martínez, J., Santacruz-Ortega, H.D.C., Burgos-Hernández, A.

CYTA - Journal of Food, Volume 18, Issue 1, 1 January 2020, Pages 153-163

11. Preparation and Characterization of Quercetin-Loaded Zein Nanoparticles by Electrospraying and Study of In Vitro Bioavailability

Rodríguez-Félix, F., Del-Toro-Sánchez, C.L., Javier Cinco-Moroyoqui, F., Juárez, J., Ruiz-Cruz, S., López-Ahumada, G.A., Carvajal-Millan, E., Castro-Enríquez, D.D., Barreras-Urbina, C.G., Tapia-Hernández, J.A.

Journal of Food Science, Volume 84, Issue 10, 1 October 2019, Pages 2883-2897



"El saber de mis hijos
hará mi grandeza"



12. Prolamins from cereal by-products: Classification, extraction, characterization and its applications in micro- and nanofabrication

Tapia-Hernández, J.A., Del-Toro-Sánchez, C.L., Cinco-Moroyoqui, F.J., Juárez-Onofre, J.E., Ruiz-Cruz, S., Carvajal-Millan, E., López-Ahumada, G.A., Castro-Enríquez, D.D., Barreras-Urbina, C.G., Rodríguez-Felix, F.

Trends in Food Science and Technology, Volume 90, August 2019, Pages 111-132

13. Cisplatin-loaded PLGA nanoparticles for HER2 targeted ovarian cancer therapy

Domínguez-Ríos, R., Sánchez-Ramírez, D.R., Ruiz-Saray, K., Ocegüera-Basurto, P.E., Almada, M., Juárez, J., Zepeda-Moreno, A., del Toro-Arreola, A., Topete, A., Daneri-Navarro, A.

Colloids and Surfaces B: Biointerfaces, Volume 178, 1 June 2019, Pages 199-207

14. Gallic Acid-Loaded Zein Nanoparticles by Electro spraying Process

Tapia-Hernández, J.A., Del-Toro-Sánchez, C.L., Cinco-Moroyoqui, F.J., Ruiz-Cruz, S., Juárez, J., Castro-Enríquez, D.D., Barreras-Urbina, C.G., López-Ahumada, G.A., Rodríguez-Félix, F.

Journal of Food Science, Volume 84, Issue 4, April 2019, Pages 818-831

15. SiRNA silencing by chemically modified biopolymeric nanovectors

Villar-Alvarez, E., Leal, B.H., Martínez-González, R., Pardo, A., Al-Qadi, S., Juárez, J., Valdez, M.A., Cambón, A., Barbosa, S., Taboada, P.

ACS Omega, Volume 4, Issue 2, 21 February 2019, Pages 3904-3921

16. Hybrid folic acid-conjugated gold nanorods-loaded human serum albumin nanoparticles for simultaneous photothermal and chemotherapeutic therapy

Encinas-Basurto, D., Ibarra, J., Juárez, J., Pardo, A., Barbosa, S., Taboada, P., Valdez, M.A.

Materials Science and Engineering C, Volume 91, 1 October 2018, Pages 669-678

17. Zein-polysaccharide nanoparticles as matrices for antioxidant compounds: A strategy for prevention of chronic degenerative diseases

Tapia-Hernández, J.A., Rodríguez-Felix, F., Juárez-Onofre, J.E., Ruiz-Cruz, S., Robles-García, M.A., Borboa-Flores, J., Wong-Corral, F.J., Cinco-Moroyoqui, F.J., Castro-Enríquez, D.D., Del-Toro-Sánchez, C.L.

Food Research International, Volume 111, September 2018, Pages 451-471

18. Physicochemical properties of novel pectin/Aloe gel membranes



"El saber de mis hijos
hará mi grandeza"



López-Mata, M.A., Gastelum-Cabrera, M., Valbuena-Gregorio, E., Zamudio-Flores, P.B., Burruel-Ibarra, S.E., Morales-Figueroa, G.G., Quihui-Cota, L., Juárez-Onofre, J.E.

Iranian Polymer Journal, Volume 27, Issue 8, 1 August 2018, Pages 545-553

19. Targeted drug delivery via human epidermal growth factor receptor for sustained release of allyl isothiocyanate

Encinas-Basurto, D., Juárez, J., Valdez, M.A., Burboa, M.G., Barbosa, S., Taboada, P.

Current Topics in Medicinal Chemistry, Volume 18, Issue 14, 2018, Pages 1252-1260

20. Co-encapsulation of magnetic nanoparticles and cisplatin within biocompatible polymers as multifunctional nanoplatfoms: Synthesis, characterization, and in vitro assays

Ibarra, J., Encinas, D., Blanco, M., Barbosa, S., Taboada, P., Juárez, J., Valdez, M.A.

Materials Research Express, Volume 5, Issue 1, January 2018, Article number 015023

21. Microencapsulation of carvacrol using Pectin/Aloe-gel as a novel wound dressing films

Gómez-Rodríguez, G.-H., López-Mata, M.A., Valbuena-Gregorio, E., Melchor, R.G.V., Campos-García, J.C., Silva-Beltrán, N.P., Quihui-Cota, L., Ruiz-Cruz, S., Juárez, J.

Current Topics in Medicinal Chemistry, Volume 18, Issue 14, 2018, Pages 1261-1268

22. Peptide functionalized magneto-plasmonic nanoparticles obtained by microfluidics for inhibition of β -amyloid aggregation

Hassan, N., Cordero, M.L., Sierpe, R., Almada, M., Juárez, J., Valdez, M., Riveros, A., Vargas, E., Abou-Hassan, A., Ruso, J.M., Kogan, M.J.

Journal of Materials Chemistry B, Volume 6, Issue 31, 2018, Pages 5091-5099

23. Photothermal conversion efficiency and cytotoxic effect of gold nanorods stabilized with chitosan, alginate and poly(vinyl alcohol)

Almada, M., Leal-Martínez, B.H., Hassan, N., Kogan, M.J., Burboa, M.G., Topete, A., Valdez, M.A., Juárez, J.

Materials Science and Engineering C, Volume 77, 1 August 2017, Pages 583-593



"El saber de mis hijos
hará mi grandeza"



24. Surface Self-Assembly and Properties of Monolayers Formed by Reverse Poly(butylene oxide)-poly(ethylene oxide)-poly(butylene oxide) Triblock Copolymers with Lengthy Hydrophilic Blocks

Villar-Alvarez, E., Cambón, A., Blanco, M., Pardo, A., Martínez, R., Barbosa, S., Valdez, M.A., Juárez, J., Taboada, P.

Journal of Physical Chemistry C, Volume 121, Issue 23, 15 June 2017, Pages 12684-12695

25. Poly(lactic-co-glycolic acid) nanoparticles for sustained release of allyl isothiocyanate: characterization, in vitro release and biological activity

Encinas-Basurto, D., Ibarra, J., Juárez, J., Burboa, M.G., Barbosa, S., Taboada, P., Troncoso-Rojas, R., Valdez, M.A.

Journal of Microencapsulation, Volume 34, Issue 3, 3 April 2017, Pages 231-242

26. Growth kinetics of gold nanorods synthesized by a seed-mediated method under pH acidic conditions

Almada, M., Ruiz, E.D., Ibarra-Hurtado, J., Hassan, N., Kogan, M.J., Cadena-Nava, R.D., Valdés, M.A., Juárez, J.

Journal of Nanoscience and Nanotechnology, Volume 16, Issue 7, July 2016, Pages 7707-7714

27. Synthesis and characterization of magnetite/PLGA/chitosan nanoparticles

Ibarra, J., Melendres, J., Almada, M., Burboa, M.G., Taboada, P., Juárez, J., Valdez, M.A.

Materials Research Express, Volume 2, Issue 9, September 2015, Article number 095010

28. Oligomers, protofibrils and amyloid fibrils from recombinant human lysozyme (rHL): Fibrillation process and cytotoxicity evaluation for ARPE-19 cell line

Ruiz, E.D., Almada, M., Burboa, M.G., Taboada, P., Mosquera, V., Valdez, M.A., Juárez, J.

Colloids and Surfaces B: Biointerfaces, Volume 126, February 01, 2015, Pages 335-343

29. Synthesis and characterization of new thiolated chitosan nanoparticles obtained by ionic gelation method

Esquivel, R., Juárez, J., Almada, M., Ibarra, J., Valdez, M.A.

International Journal of Polymer Science, Volume 2015, 2015, Article number 502058



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física





"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



LÓPEZ DELGADO ROSENDO

Artículos

1. Zinc sulfide quantum dots coated with PVP: applications on commercial solar cells

Melendres-Sánchez J.C., López-Delgado R., Saavedra-Rodríguez G., Carrillo-Torres R.C., Sánchez-Zeferino R., Ayón A., Álvarez-Ramos M.E.
Journal of Materials Science: Materials in Electronics, Volume 32, Issue 2, Pages 1457-1465, January 2021

2. One-pot Synthesized Silicon Quantum Dot Films for Luminescent Solar Concentrators

Lopez-Delgado R., Cordova-Rubio A.J., Carrillo-Torres R.C., Alvarez-Ramos M.E.
Conference Record of the IEEE Photovoltaic Specialists Conference, Volume 2020-June, Pages 2192-2194, 14 June 2020 Article number 9300512

3. Cu-doped CdS thin films by chemical bath deposition and ion exchange

Diaz-Grijalva, O.I., Berman-Mendoza, D., Flores-Pacheco, A., López-Delgado, R., Ramos-Carrasco, A., Alvarez-Ramos, M.E.
Journal of Materials Science: Materials in Electronics, Volume 31, Issue 2, 1 January 2020, Pages 1722-1730

4. Synthesis of Si and CdTe quantum dots and their combined use as down-shifting photoluminescent centers in Si solar cells

Guerrero-Gonzalez, R., Orona, F.A., Saucedo-Flores, E., Ruelas, R., Pelayo-Ceja, J.E., Lopez-Delgado, R., Cordova-Rubio, A., Álvarez-Ramos, M.E., Ayon, A.
Materials for Renewable and Sustainable Energy, Volume 8, Issue 3, 1 September 2019, Article number 14

5. Silicon solar cell efficiency improvement employing photoluminescent properties of chlorophyll-A

Lopez-Delgado, R., Tostado-Plascencia, M., Álvarez-Ramos, M.E., Ayón, A.
Microelectronic Engineering, Volume 216, 15 August 2019, Article number 111047

6. ZnS and ZnO nanocomposite for near white light tuning applications

Zazueta-Raynaud, A., Cordova-Rubio, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Carrillo-Torres, R.C., Sanchez-Zeferino, R., Alvarez-Ramos, M.E., Ayon, A.
2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752671



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



7. Anomalous Stokes shift of colloidal quantum dots and their influence on solar cell performance

Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Alvarez-Ramos, M.E., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A.

Microsystem Technologies, 2019

8. Solar cell efficiency improvement by photon absorption enhancement employing rare earth doped films

Lopez-Delgado, R., Melendres-Sanchez, J.C., Cordova-Rubio, A.J., Álvarez-Ramos, M.E., Ayon, A.

Journal of Physics: Conference Series, Volume 1052, Issue 1, 26 July 2018, Article number 012068

9. ZnS quantum dots coated with PVP to enhance solar cell performance

Melendres-Sanchez, J.C., Lopez-Delgado, R., Ayon, A., Saavedra-Rodriguez, G., Sánchez-Zeferino, R., Carrillo-Torres R.C., Alvarez-Ramos, M.E.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

10. Influence of photoluminescent Si and ZnO QD multilayered films on solar cell efficiency

Cordova-Rubio, A., Lopez-Delgado, R., Zazueta-Raynaud, A., Ayon, A., Cordova-Rubio, A., Lopez-Delgado, R., Zazueta-Raynaud, A., Alvarez-Ramos, M.E.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

11. Anomalous Stokes shift of colloidal quantum dots

Pelayo-Ceja, J.E., Zazueta-Raynaud, A., Lopez-Delgado, R., Saucedo-Flores, E., Ruelas-Lepe, R., Orona-Magallanes, F., Guerrero-Gonzalez, R., Ayon, A.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2018, 22 June 2018, Pages 1-4

12. Effect of Au nanoparticles on the performance of hybrid solar cells

Sharma, M., Lopez-Delgado, R., Ayon, A.A.

Microsystem Technologies, Volume 24, Issue 1, 1 January 2018, Pages 543-550

13. Solar cell efficiency improvement employing down-shifting silicon quantum dots

Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos-Carrasco, A., Pelayo, J.E., Berman-Mendoza, D., Álvarez-Ramos, M.E., Ayon, A.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Microsystem Technologies, Volume 24, Issue 1, 1 January 2018, Pages 495-502

14. Enhanced conversion efficiency in Si solar cells employing photoluminescent down-shifting CdSe/CdS core/shell quantum dots

Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A.

Scientific Reports, Volume 7, Issue 1, 1 December 2017, Article number 14104

15. Synergistic effects of nanotexturization and down shifting CdTe quantum dots in solar cell performance

Tronco-Jurado, U., Saucedo-Flores, E., Ruelas, R., López, R., Alvarez-Ramos, M.E., Ayón, A.A.

Microsystem Technologies, Volume 23, Issue 9, 1 September 2017, Pages 3945-3953

16. Utilization of down-shifting photoluminescent ZnO quantum dots on solar cells

Zazueta-Raynaud, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Alvarez-Ramos, M.E., Ayon, A.

Materials Research Express, Volume 4, Issue 7, July 2017, Article number 076203

17. ZnO photoluminescent quantum dots with down-shifting effect applied in solar cells.

Zazueta-Raynaud, A., Pelayo-Ceja, J.E., Lopez-Delgado, R., Ayon, A.

Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012036

18. Red-shift of the photoluminescent emission peaks of CdTe quantum dots due to the synergistic interaction with carbon quantum dot mixtures

Pelayo, E., Zazueta, A., López-Delgado, R., Saucedo, E., Ruelas, R., Ayón, A.

Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012053

19. Enhancing the power conversion efficiency of solar cells employing down-shifting silicon quantum dots

Lopez-Delgado, R., Higuera-Valenzuela, H.J., Zazueta-Raynaud, A., Ramos, A., Pelayo, J.E., Berman, D., Álvarez-Ramos, M.E., Ayon, A.

Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012087



"El saber de mis hijos
hará mi grandeza"



20. Influence of photo-luminescent CdSe/CdS core shell quantum dots in solar cell efficiency

Lopez-Delgado, R., Zhou, Y., Zazueta-Raynaud, A., Zhao, H., Pelayo, J.E., Vomiero, A., Álvarez-Ramos, M.E., Rosei, F., Ayon, A.

Journal of Physics: Conference Series, Volume 773, Issue 1, 14 December 2016, Article number 012088

21. Silicon solar cell efficiency improvement employing the photoluminescent, downshifting effects of carbon quantum dots

Pelayo, J.E., Zazueta, A., Lopez-Delgado, R., Saucedo, E., Ruelas, R., Ayon, A.

Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS, DTIP 2016, 15 July 2016, Article number 7514887

22. Silicon solar cell efficiency improvement employing the photoluminescent, down-shifting effects of carbon and CdTe quantum dots

Pelayo, E., Zazueta, A., Lopez, R., Saucedo, E., Ruelas, R., Ayon, A.

Materials for Renewable and Sustainable Energy, Volume 5, Issue 2, 1 May 2016, Article number 70

23. Efficiency improvement employing CdTe quantum dots and Ag/Au nanoalloys on c-silicon solar cells

Ayon, A., Tronco-Jurado, U., Lopez-Delgado, R., Sharma, M., Saucedo-Flores, E., Alvarez-Ramos, E.

2015 IEEE 42nd Photovoltaic Specialist Conference, PVSC 2015, 14 December 2015, Article number 7355756

24. Influence of Au/Ag nanostars and CdTe quantum dots on photon manipulation

Ayon, A., Tronco-Jurado, U., Lopez-Delgado, R., Sharma, M., Saucedo-Flores, E., Alvarez-Ramos, E.

2015 Transducers - 2015 18th International Conference on Solid-State Sensors, Actuators and Microsystems, TRANSDUCERS 2015, 5 August 2015, Article number 7181204, Pages 1436-1439



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física





"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



LUCERO ACUÑA JESÚS ARMANDO

Artículos

1. Deep photothermal effect induced by stereotactic laser beams in highly scattering media

Baez-Castillo L., Ortiz-Rascon E., Carrillo-Torres R.C., Bruce N.C., Garduño-Mejía J., Lucero-Acuña A., Álvarez-Ramos M.E.

Optics Letters, Volume 46, Issue 17, Pages 4248-4251, 1 September 2021

2. Synthesis and characterization of a bioconjugate based on oleic acid and L-cysteine

Vizcarra-Pacheco M., Ley-Flores M., Matrecitos-Burrueal A.M., López-Esparza R., Fernández-Quiroz D., Lucero-Acuña A., Zavala-Rivera P.

Polymers, Volume 13, Issue 11, June-1 2021, Article number 1791

3. Micelle encapsulation of ferromagnetic nanoparticles of iron carbide@iron oxide in chitosan as possible nanomedicine agent

Sauceda-Oloño P.Y., Cardenas-Sanchez H., Argüelles-Pesqueira A.I., Gutierrez-Valenzuela C., Alvarez-Ramos M.E., Lucero-Acuña A., Zavala-Rivera P.

Colloids and Interfaces, Volume 4, Issue 2, June 2020, Article number 22

4. Aqueous-organic phase transfer of iron oxide@iron carbide nanoparticles using amide-amine modified oleic acid

Argüelles-Pesqueira A., Zavala-Rivera P., Lucero-Acuña A., Guerrero-German P., Durazo A.R., Moreno-Corral R., Tánori J.

MRS Advances, Pages 2075-2083, 2020

5. PLGA nanoparticle preparations by emulsification and nanoprecipitation techniques: Effects of formulation parameters

Hernández-Giottonini, K.Y., Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Peñuñuri-Miranda, O., Zavala-Rivera, P., Guerrero-Germán, P., Lucero-Acuña, A.

RSC Advances, Volume 10, Issue 8, 2020, Pages 4218-4231

6. Temperature stimuli-responsive nanoparticles from chitosan-graft-poly(N-vinylcaprolactam) as a drug delivery system

Fernández-Quiroz, D., Loya-Duarte, J., Silva-Campa, E., Argüelles-Monal, W., Sarabia-Sainz, A.-Í., Lucero-Acuña, A., del Castillo-Castro, T., San Román, J., Lizardi-Mendoza, J., Burgara-Estrella, A.J., Castaneda, B., Soto-Puebla, D., Pedroza-Montero, M.



"El saber de mis hijos
hará mi grandeza"



Journal of Applied Polymer Science, Volume 136, Issue 32, 20 August 2019, Article number 47831

7. Biosynthesis of gold and silver nanoparticles using *Parkinsonia Florida* leaf extract and antimicrobial activity of silver nanoparticles

López-Millán, A., Del Toro-Sánchez, C.L., Ramos-Enríquez, J.R., Carrillo-Torres, R.C., Zavala-Rivera, P., Esquivel, R., Álvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.

Materials Research Express, Volume 6, Issue 9, 5 July 2019, Article number 095025

8. Seedless synthesis of silver nanoparticles using sunlight and study of the effect of different ratios of precursors

Félix-Domínguez, F., Carrillo-Torres, R.C., Lucero-Acuña, A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.

Materials Research Express, Volume 6, Issue 4, 30 January 2019

9. Mathematical modeling and parametrical analysis of the temperature dependency of control drug release from biodegradable nanoparticles

Lucero-Acuña, A., Gutiérrez-Valenzuela, C.A., Esquivel, R., Guzmán-Zamudio, R.

RSC Advances, Volume 9, Issue 16, 2019, Pages 8728-8739

10. Differential response of BEAS-2B and H-441 cells to methylene blue photoactivation

Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Bojang, P., Esquivel, R., Hernández, P., Ramos, K.S., Guzmán-Zamudio, R., Lucero-Acuña, A.

Anticancer Research, Volume 39, Issue 7, 2019, Pages 3739-3744

11. Low intensity sonosynthesis of iron carbide@iron oxide core-shell nanoparticles

Argüelles-Pesqueira, A.I., Diéguez-Armenta, N.M., Bobadilla-Valencia, A.K., Nataraj, S.K., Rosas-Durazo, A., Esquivel, R., Alvarez-Ramos, M.E., Escudero, R., Guerrero-German, P., Lucero-Acuña, J.A., Zavala-Rivera, P.

Ultrasonics Sonochemistry, Volume 49, December 2018, Pages 303-309

12. Poly(N-isopropylacrylamide)-coated gold nanorods mediated by thiolated chitosan layer: Thermo-pH responsiveness and optical properties

Esquivel, R., Canale, I., Ramirez, M., Hernández, P., Zavala-Rivera, P., Álvarez-Ramos, E., Lucero-Acuña, A.

E-Polymers, Volume 18, Issue 2, 23 February 2018, Pages 163-174



"El saber de mis hijos
hará mi grandeza"



13. Evaluation of a combined emulsion process to encapsulate methylene blue into PLGA nanoparticles

Gutiérrez-Valenzuela, C.A., Esquivel, R., Guerrero-Germán, P., Zavala-Rivera, P., Rodríguez-Figueroa, J.C., Guzmán-Z, R., Lucero-Acuña, A.
RSC Advances, Volume 8, Issue 1, 2018, Pages 414-422

14. Efficient disruption of Escherichia coli for plasmid DNA recovery in a bead mill

Padilla-Zamudio, A., Lucero-Acuña, J.A., Guerrero-Germán, P., Ortega-López, J., Tejeda-Mansir, A.
Applied Sciences, Volume 8, Issue 1, 26 December 2017, Article number 30

15. Systematic evaluation of pH and thermoresponsive poly(n-isopropylacrylamide-chitosan-fluorescein) microgel

Hernández, P., Lucero-Acuña, A., Gutiérrez-Valenzuela, C.A., Moreno, R., Esquivel, R.
E-Polymers, Volume 17, Issue 5, 28 August 2017, Pages 399-408

16. Advances in the study of the multifunctional bioactivity of kefir

Rodríguez-Figueroa, J.C., Noriega-Rodríguez, J.A., Lucero-Acuña, A.
Interciencia, Volume 42, Issue 6, June 2017, Pages 347-354

17. Aqueous-organic phase transfer of gold and silver nanoparticles using thiol-modified oleic acid

López-Millán, A., Zavala-Rivera, P., Esquivel, R., Carrillo, R., Alvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.
Applied Sciences, Volume 7, Issue 3, 2017, Article number 273

18. Folate functionalized PLGA nanoparticles loaded with plasmid pVAX1-NH36: Mathematical analysis of release

Gutiérrez-Valenzuela, C.A., Guerrero-Germán, P., Tejeda-Mansir, A., Esquivel, R., Guzmán-Z, R., Lucero-Acuña, A.
Applied Sciences, Volume 6, Issue 12, 2016, Article number 364

19. Nanoparticle encapsulation and controlled release of a hydrophobic kinase inhibitor: Three stage mathematical modeling and parametric analysis

Lucero-Acuña, A., Guzmán, R.
International Journal of Pharmaceutics, Volume 494, Issue 1, 15 October 2015, Article number 15053, Pages 249-257



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física





"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



MELENDREZ AMAVIZCA RODRIGO

Artículos

1. Thermoluminescence properties of high-dose gamma-irradiated diamond films

Cruz-Zaragoza E., Marcazzó J., Pérez Ramírez E., Meléndrez R., Barboza-Flores M.

Journal of Physics: Conference Series, Volume 1723, Issue 118 March 2021 Article number 012052

2. Thermoluminescence response of detonation diamond microparticles exposed to beta and alpha radiation

Gil-Tolano, M.I., Calderón-Martínez, M.C., Román-López, J., Cruz-Zaragoza, E., Meléndrez, R., Chernov, V., Barboza-Flores, M.

Diamond and Related Materials, Volume 106, June 2020, Article number 107823

3. Effect of thermal treatment on luminescence properties of long persistent $\text{CaAl}_2\text{O}_4:\text{Eu}^{2+}, \text{Dy}^{3+}$ synthesized by combustion method

Ruiz-Torres, R., Chernov, V., Salas-Castillo, P., Zúñiga-Rivera, N.J., Diaz-Torres, L.A., Meléndrez, R., Barboza-Flores, M.

Optical Materials, Volume 101, March 2020, Article number 109763

4. Characterization of epoxy-nanoparticle composites exposed to gamma & UV radiation for aerospace applications

Torres, M., Franco-Urquiza, E.A., González-García, P., Bárcena-Balderas, J., Piedra, S., Madera, T., Meléndrez, R., Quintana, P.

CAMX 2019 - Composites and Advanced Materials Expo, 2020, Article number TP19-0845

5. Thermoluminescence and infrared stimulated luminescence in long persistent monoclinic $\text{SrAl}_2\text{O}_4:\text{Eu}^{2+}, \text{Dy}^{3+}$ and $\text{SrAl}_2\text{O}_4:\text{Eu}^{2+}, \text{Nd}^{3+}$ phosphors

Chernov, V., Salas-Castillo, P., Díaz-Torres, L.A., Zúñiga-Rivera, N.J., Ruiz-Torres, R., Meléndrez, R., Barboza-Flores, M.

Optical Materials

Volume 92, June 2019, Pages 46-52

6. Production of Biocomposites Using Different Pre-treated Cut Jute Fibre and Polylactic Acid Matrix and Their Properties

Burrola-Núñez, H., Herrera-Franco, P., Soto-Valdez, H., Rodríguez-Félix, D.E., Meléndrez-Amavizca, R., Madera-Santana, T.J.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Journal of Natural Fibers, 2019 (Artículo en prensa)

7. Synthesis and thermoluminescence of erbium-activated lithium niobate

Muñoz, I.C., Landavazo, M.A., Brown, F., Cruz-Zaragoza, E., Alvarez-Montaña, V.E., Meléndrez-Amavizca, R., Gil-Tolano, I., Tánori-Córdova, J.
Applied Radiation and Isotopes, Volume 142, December 2018, Pages 64-70

8. X-Ray Thermoluminescence Dosimetry Characterization of Commercially Available CVD Diamond

Gil-Tolano, M.I., Meléndrez, R., Álvarez-García, S., Soto-Puebla, D., Chernov, V., Barboza-Flores, M.
Physica Status Solidi (A) Applications and Materials Science, Volume 215, Issue 22, 21 November 2018, Article number 1800246

9. Raman and Thermoluminescence Studies of HPHT Synthetic Nanodiamond Powders

Ruiz-Valdez, C.F., Chernov, V., Meléndrez, R., Álvarez-García, S., Santacruz-Gómez, K., Berman-Mendoza, D., Barboza-Flores, M.
Physica Status Solidi (A) Applications and Materials Science, Volume 215, Issue 22, 21 November 2018, Article number 1800267

10. Afterglow, thermoluminescence and optically stimulated luminescence characterization of micro-, nano- and ultrananocrystalline diamond films grown on silicon by HFCVD

Montes-Gutiérrez, J.A., Alcantar-Peña, J.J., de Obaldía, E., Zúñiga-Rivera, N.J., Chernov, V., Meléndrez-Amavizca, R., Barboza-Flores, M., Garcia-Gutierrez, R., Auciello, O.
Diamond and Related Materials
Volume 85, May 2018, Pages 117-124

11. A nanodiamond-fluorescein conjugate for cell studies

Pedroso-Santana, S., Fleitas-Salazar, N., Sarabia-Sainz, A., Silva-Campa, E., Burgara-Estrella, A., Angulo-Molina, A., Meléndrez, R., Pedroza-Montero, M., Riera, R.
Advances in Natural Sciences: Nanoscience and Nanotechnology, Volume 9, Issue 1, March 2018, Article number 015013

12. Antioxidant activity of hydrated carboxylated nanodiamonds and its influence on water γ -radiolysis

Santacruz-Gomez, K., Sarabia-Sainz, A., Acosta-Elias, M., Sarabia-Sainz, M., Janetanakit, W., Khosla, N., Meléndrez, R., Montero, M.P., Lal, R.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Nanotechnology, Volume 29, Issue 12, 12 February 2018, Article number 125707

13. Micro-structures of nanodiamonds grown on silicon by hot filament chemical vapor deposition

Montes-Gutierrez, J.A., Garcia-Gutierrez, R., Barboza-Flores, M., Meléndrez, R., Cabanillas, R.E., Contreras, O.E., Hirata, G.A., Rangel-Segura, R.
International Journal of Chemical Reactor Engineering, Volume 15, Issue 6, 20 December 2017, Article number 20170088

14. Nano alterations of membrane structure on both γ -irradiated and stored human erythrocytes

Acosta-Elías, M.A., Burgara-Estrella, A.J., Sarabia-Sainz, J.A.-I., Silva-Campa, E., Angulo-Molina, A., Santacruz-Gómez, K.J., Castaneda, B., Soto-Puebla, D., Ledesma-Osuna, A.I., Melendrez-Amavizca, R., Pedroza-Montero, M.
International Journal of Radiation Biology
Volume 93, Issue 12, 2 December 2017, Pages 1306-1311

15. Study of a Polydimethylsiloxane (PDMS) Elastomer Generated by γ Irradiation: Correlation Between Properties (Thermal and Mechanical) and Structure (Crosslink Density Value)

Meléndrez-Zamudio, M., Villegas, A., González-Calderón, J.A., Meléndrez, R., Meléndrez-Lira, M., Cervantes, J.
Journal of Inorganic and Organometallic Polymers and Materials
Volume 27, Issue 3, 1 May 2017, Pages 622-632

16. Thermally and optically stimulated luminescence in long persistent orthorhombic strontium aluminates doped with Eu, Dy and Eu, Nd

Zúñiga-Rivera, N.J., Salas-Castillo, P., Chernov, V., Díaz-Torres, L.A., Meléndrez, R., García-Gutierrez, R., Carrillo-Torres, R.C., Barboza-Flores, M.
Optical Materials
Volume 67, 1 May 2017, Pages 91-97

17. Thermally stimulated luminescence and persistent luminescence of β -irradiated YAG:Pr³⁺ nanophosphors produced by combustion synthesis

Santacruz-Gomez, K., Meléndrez, R., Gil-Tolano, M.I., Jimenez, J.A., Makale, M.T., Barboza-Flores, M., Castaneda, B., Soto-Puebla, D., Pedroza-Montero, M., McKittrick, J., Hirata, G.A.
Radiation Measurements
Volume 94, 1 November 2016, Pages 35-40



"El saber de mis hijos
hará mi grandeza"



18. Effect of gamma irradiation on physicochemical properties of commercial poly(lactic acid) clamshell for food packaging

Madera-Santana, T.J., Meléndrez, R., González-García, G., Quintana-Owen, P., Pillai, S.D.

Radiation Physics and Chemistry, Volume 123, June 01, 2016, Pages 6-13

19. Carboxylated nanodiamonds inhibit γ -irradiation damage of human red blood cells

Santacruz-Gomez, K., Silva-Campa, E., Melendrez-Amavizca, R., Teran Arce, F., Mata-Haro, V., Landon, P.B., Zhang, C., Pedroza-Montero, M., Lal, R.

Nanoscale, Volume 8, Issue 13, 7 April 2016, Pages 7189-7196

20. Thermoluminescence studies on HPHT diamond crystals exposed to β -irradiation

Gil-Tolano, M.I., Meléndrez, R., Castañeda, B., Alvarez-Garcia, S., Pedroza-Montero, M., Soto-Puebla, D., Chernov, V., Barboza-Flores, M.

Physica Status Solidi (A) Applications and Materials Science
Volume 212, Issue 11, 2015, Pages 2507-2511

21. Carboxylated nanodiamond and re-oxygenation process of gamma irradiated red blood cells

Acosta-Elías, M., Sarabia-Sainz, A., Pedroso-Santana, S., Silva-Campa, E., Santacruz-Gomez, K., Angulo-Molina, A., Castaneda, B., Soto-Puebla, D., Barboza-Flores, M., Melendrez, R., Álvarez-García, S., Pedroza-Montero, M.

Physica Status Solidi (A) Applications and Materials Science
Volume 212, Issue 11, 2015, Pages 2437-2444



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



PEDROZA MONTERO MARTIN RAFAEL

Artículos

1. Conformational behavior, topographical features, and antioxidant activity of partly de-esterified arabinoxylans

De Anda-Flores Y., Carvajal-Millan E., Lizardi-Mendoza J., Rascon-Chu A., Tanori-Cordova J., Martínez-López A.L., Burgara-Estrella A.J., Pedroza-Montero M.R.
Polymers, Volume 13, Issue 16, 2 August 2021, Article number 2794

2. Nanoscale Changes on RBC Membrane Induced by Storage and Ionizing Radiation: A Mini-Review

López-Canizales A.M., Angulo-Molina A., Garibay-Escobar A., Silva-Campa E., Mendez-Rojas M.A., Santacruz-Gómez K., Acosta-Elías M., Castañeda-Medina B., Soto-Puebla D., Álvarez-Bajo O., Burgara-Estrella A., Pedroza-Montero M.
Frontiers in Physiology, Volume 12, 4 June 2021, Article number 669455

3. Thermometric characterization of fluorescent nanodiamonds suitable for biomedical applications

Pedroza-Montero F., Santacruz-Gómez K., Acosta-Elías M., Silva-Campa E., Meza-Figueroa D., Soto-Puebla D., Castañeda B., Urrutia-Bañuelos E., Álvarez-Bajo O., Navarro-Espinoza S., Riera R., Pedroza-Montero M.
Applied Sciences, Volume 11, Issue 9, 1 May 2021, Article number 4065

4. Identification of refractory zirconia from catalytic converters in dust: An emerging pollutant in urban environments

Meza-Figueroa D., Pedroza-Montero M., Barboza-Flores M., Navarro-Espinoza S., Ruiz-Torres R., Robles-Morúa A., Romero F., Schiavo B., González-Grijalva B., Acosta-Elías M., Mendoza-Córdova A.
Science of the Total Environment, Volume 760, 15 March 2021, Article number 143384

5. Effects of untreated drinking water at three indigenous Yaqui towns in Mexico: Insights from a murine model

Navarro-Espinoza S., Angulo-Molina A., Meza-Figueroa D., López-Cervantes G., Meza-Montenegro M., Armienta A., Soto-Puebla D., Silva-Campa E., Burgara-Estrella A., Álvarez-Bajo O., Pedroza-Montero M.
International Journal of Environmental Research and Public Health, Volume 18, Issue 2, Pages 1-14, 2 January 2021, Article number 805



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



6. Photoluminescence and Thermoluminescence Properties of Nanophosphors, YVO₄:Eu³⁺ and YVO₄:Eu³⁺:Dy³⁺

Fernández-Osorio A., Redón R., Medina-Pérez J., Pedroza-Montero M., Acosta M.
Journal of Cluster Science, 2021

7. Albumin-Albumin/Lactosylated Core-Shell Nanoparticles: Therapy to Treat Hepatocellular Carcinoma for Controlled Delivery of Doxorubicin

Teran-Saavedra N.G., Sarabia-Sainz J.A., Velázquez-Contreras E.F., Ramos-Clamont Montfort G., Pedroza-Montero M., Vazquez-Moreno L.
Molecules, Volume 25, Issue 22, 20 November 2020

8. A magnetic immunoconjugate nanoplatform for easy colorimetric detection of the NS1 protein of dengue virus in infected serum

Ramírez-Navarro R., Polesnak P., Reyes-Leyva J., Haque U., Vazquez-Chagoyán J.C., Pedroza-Montero M.R., Méndez-Rojas M.A., Angulo-Molina A.
Nanoscale Advances, Volume 2, Issue 7, Pages 3017-3026, July 2020

9. Combination of ultraviolet light-C and clove essential oil to inactivate Salmonella Typhimurium biofilms on stainless steel

Silva-Espinoza B.A., Palomares-Navarro J.J., Tapia-Rodríguez M.R., Cruz-Valenzuela M.R., González-Aguilar G.A., Silva-Campa E., Pedroza-Montero M., Almeida-Lopes M., Miranda R., Ayala-Zavala J.F.
Journal of Food Safety, Volume 40, Issue 3, 1 June 2020, Article number e12788

10. Identification of inhalable rutile and polycyclic aromatic hydrocarbons (PAHs) nanoparticles in the atmospheric dust

Gallego-Hernández A.L., Meza-Figueroa D., Tanori J., Acosta-Elías M., González-Grijalva B., Maldonado-Escalante J.F., Rochín-Wong S., Soto-Puebla D., Navarro-Espinoza S., Ochoa-Contreras R., Pedroza-Montero M.
Environmental Pollution, Volume 260, May 2020, Article number 114006

11. Metal bioaccessibility, particle size distribution and polydispersity of playground dust in synthetic lysosomal fluids

Meza-Figueroa D., Barboza-Flores M., Romero F.M., Acosta-Eliás M., Hernández-Mendiola E., Maldonado-Escalante F., Pérez-Segura E., González-Grijalva B., Meza-Montenegro M., García-Rico L., Navarro-Espinoza S., Santacruz-Gómez K.
Science of the Total Environment, Volume 713, 15 April 2020, Article number 136481

12. Atomic force microscopy and Raman spectra profile of blood components associated with exposure to cigarette smoking



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Burgara-Estrella A.J., Acosta-Elías M.A., Álvarez-Bajo O., Silva-Campa E., Angulo-Molina A., Rodríguez-Hernández I.D.C., Sarabia-Sainz H.M., Escalante-Lugo V.M., Pedroza-Montero M.R.

RSC Advances, Volume 10, Issue 20, Pages 11971-11981, 24 March 2020

13. Characterization of the internal state of nitrogen-vacancy center in diamond and second quantization formalism

Huerta C.I., Urrutia-Bañuelos E., Pedroza-Montero M.R., Riera R.

Revista Mexicana de Física, Volume 66, Issue 6, Pages 814-823, 2020

14. Confined clustering of AuCu nanoparticles under ambient conditions

Rocha-Rocha O., Cortez-Valadez M., Calderón-Ayala G., Martínez-Nuñez C.E., Pedroza-Montero M., Flores-Acosta M.

Physics Letters, Section A: General, Atomic and Solid State Physics, Volume 383, Issue 34, 5 December 2019, Article number 125985

15. Temperature stimuli-responsive nanoparticles from chitosan-graft-poly(N-vinylcaprolactam) as a drug delivery system

Fernández-Quiroz D., Loya-Duarte J., Silva-Campa E., Argüelles-Monal W., Sarabia-Sainz A.-Í., Lucero-Acuña A. del Castillo-Castro T., San Román J., Lizardi-Mendoza J., Burgara-Estrella A.J., Castaneda B., Soto-Puebla D.

Journal of Applied Polymer Science, Volume 136, Issue 32, 20 August 2019, Article number 47831

16. Partial removal of protein associated with arabinoxylans: Impact on the viscoelasticity, crosslinking content, and microstructure of the gels formed

Mendez-Encinas M.A., Carvajal-Millan E., Yadav M.P., López-Franco Y.L., Rascon-Chu A., Lizardi-Mendoza J., Brown-Bojorquez F., Silva-Campa E., Pedroza-Montero M.

Journal of Applied Polymer Science, Volume 136, Issue 15, 15 April 2019, Article number 47300

17. Lactosylated albumin nanoparticles: Potential drug nanovehicles with selective targeting toward an in vitro model of hepatocellular carcinoma

Teran-Saavedra N.G., Sarabia-Sainz J.A.-I., Silva-Campa E., Burgara-Estrella A.J., Guzmán-Partida A.M., Montfort G.R.-C., Pedroza-Montero M., Vazquez-Moreno L.

Molecules, Volume 24, Issue 79, April 2019, Article number 1382

18. Specific capture of glycosylated graphene oxide by an asialoglycoprotein receptor: A strategic approach for liver-targeting



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Diaz-Galvez K.R., Teran-Saavedra N.G., Burgara-Estrella A.J., Fernandez-Quiroz D., Silva-Campa E., Acosta-Elias M., Sarabia-Sainz H.M., Pedroza-Montero M.R., Sarabia-Sainz J.A.

RSC Advances, Volume 9, Issue 18, Pages 9899-9906, 2019

19. Effect of gamma irradiation doses in the structural and functional properties of mice splenic cells

Deana Y., Burgara-Estrella A.J., Montalvo-Corral M., Angulo-Molina A., Acosta-Elías M.A., Silva-Campa E., Sarabia-Sainz J.A., Rodríguez-Hernández I.C., Pedroza-Montero M.R.

International Journal of Radiation Biology, Volume 95, Issue 3, Pages 286-297, 6 December 2018

20. Nanodiamonds and gold nanoparticles to obtain a hybrid nanostructure with potential applications in biomedicine

Pedroso-Santana S., Fleitas-Salazar N., Sarabia-Sainz A., Silva-Campa E., Angulo-Molina A., Pedroza-Montero M., Riera R.

Nanotechnology, Volume 29, Issue 4324 August 2018 Article number 435101

21. Source apportionment and environmental fate of lead chromates in atmospheric dust in arid environments

Meza-Figueroa D., González-Grijalva B., Romero F., Ruiz J., Pedroza-Montero M., Rivero C.I.-D., Acosta-Elías M., Ochoa-Landin L., Navarro-Espinoza S.

Science of the Total Environment, Volume 630, Pages 1596-1607, 15 July 2018

22. Electrospray-assisted fabrication of core-shell arabinoside gel particles for insulin and probiotics entrapment

Paz-Samaniego R., Rascón-Chu A., Brown-Bojorquez F., Carvajal-Millan E., Pedroza-Montero M., Silva-Campa E., Sotelo-Cruz N., López-Franco Y.L., Lizardi-Mendoza J.

Journal of Applied Polymer Science, Volume 135, Issue 26, 10 July 2018, Article number 46411

23. A nanodiamond-fluorescein conjugate for cell studies

Pedroso-Santana S., Fleitas-Salazar N., Sarabia-Sainz A., Silva-Campa E., Burgara-Estrella A., Angulo-Molina A., Melendrez R., Pedroza-Montero M., Riera R.

Advances in Natural Sciences: Nanoscience and Nanotechnology, Volume 9, Issue 1, March 2018, Article number 015013

24. Denoising and principal component analysis of amplified raman spectra from red blood cells with added silver nanoparticles



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Ferrer-Galindo L., Sañu-Ginarte A.D., Fleitas-Salazar N., Ferrer-Moreno L.A., Rosas R.A., Pedroza-Montero M., Riera R.

Journal of Nanomaterials, Volume 2018, 2018, Article number 9417819

25. Nano alterations of membrane structure on both γ -irradiated and stored human erythrocytes

Acosta-Elías M.A., Burgara-Estrella A.J., Sarabia-Sainz J.A.-I., Silva-Campa E., Angulo-Molina A., Santacruz-Gómez K.J., Castaneda B., Soto-Puebla D., Ledesma-Osuna A.I., Melendrez-Amavizca R., Pedroza-Montero M.

International Journal of Radiation Biology, Volume 93, Issue 12, Pages 1306-1311, 2 December 2017

26. Syneresis in gels of highly ferulated arabinoxylans: characterization of covalent cross-linking, rheology, and microstructure

Morales-Burgos A.M., Carvajal-Millan E., López-Franco Y.L., Rascón-Chu A., Lizardi-Mendoza J., Sotelo-Cruz N., Brown-Bojórquez F., Burgara-Estrella A., Pedroza-Montero M.

Polymers, Volume 9, Issue 5, 1 May 2017, Article number 164

27. The influence of monsoon climate on latewood growth of southwestern ponderosa pine

Morales-Burgos A.M., Carvajal-Millan E., López-Franco Y.L., Rascón-Chu A., Lizardi-Mendoza J., Sotelo-Cruz N., Brown-Bojórquez F., Burgara-Estrella A., Pedroza-Montero M.

Forests, Volume 8, Issue 5, Pages 140, 25 April 2017

28. Effect of temperature on the synthesis of silver nanoparticles with polyethylene glycol: new insights into the reduction mechanism

Fleitas-Salazar N., Silva-Campa E., Pedroso-Santana S., Tanori J., Pedroza-Montero M.R., Riera R.

Journal of Nanoparticle Research, Volume 19, Issue 31, March 2017, Article number 113

29. Molecular recognition of glyconanoparticles by RCA and E. coli K88 - Designing transports for targeted therapy

Gallegos-Tabanico A., Sarabia-Sainz J.A., Sarabia-Sainz H.M., Carrillo-Torres R.C., Guzman-Partida A.M., Monfort G.R.-C., Silva-Campa E., Burgara-Estrella A.J., Angulo-Molina A., Acosta-Elías M., Pedroza-Montero M., Vazquez-Moreno L.

Acta Biochimica Polonica, Volume 64, Issue 4, Pages 671-677, 2017



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



30. Deagglomeration and characterization of detonation nanodiamonds for biomedical applications

Pedroso-Santana S., Sarabia-Saínz A., Fleitas-Salazar N., Santacruz-Gómez K., Acosta-Elías M., Pedroza-Montero M., Riera R.

Journal of Applied Biomedicine, Volume 15, Issue 1, Pages 15-21, 1 January 2017

31. Thermally stimulated luminescence and persistent luminescence of β -irradiated YAG:Pr³⁺ nanophosphors produced by combustion synthesis

Santacruz-Gomez K., Meléndrez R., Gil-Tolano M.I., Jimenez J.A., Makale M.T., Barboza-Flores M., Castaneda B., Soto-Puebla D., Pedroza-Montero M., McKittrick J., Hirata G.A.

Radiation Measurements, Volume 94, Pages 35-40, 1 November 2016

32. Carboxylated nanodiamonds inhibit γ -irradiation damage of human red blood cells

Santacruz-Gomez K., Silva-Campa E., Melendrez-Amavizca R., Teran Arce F., Mata-Haro V., Landon P.B., Zhang C., Pedroza-Montero M., Lal R.

Nanoscale, Volume 8, Issue 13, Pages 7189-7196, 7 April 2016

33. Magnetite Nanoparticles Functionalized with Vitamin E Analogues: Anticancer Effects

Angulo-Molina A., Méndez-Rojas M.A., Palacios-Hernández T., Contreras-López O.E., Hirata-Flores G.A., Flores J.C., Flores K.L., Velázquez C., Robles-Zepeda R., Silva-Campa E., Sarabia A., Barboza-Flores M.

Materials Today: Proceedings, Volume 3, Issue 2, Pages 703-707, 2016

34. Carboxylated nanodiamond and re-oxygenation process of gamma irradiated red blood cells

Acosta-Elías M., Sarabia-Sainz A., Pedroso-Santana S., Silva-Campa E., Santacruz-Gomez K., Angulo-Molina A., Castaneda B., Soto-Puebla D., Barboza-Flores M., Melendrez R., Álvarez-García S., Pedroza-Montero M.

Physica Status Solidi (A) Applications and Materials Science, Volume 212, Issue 11, Pages 2437-2444, November 2015

35. Thermoluminescence studies on HPHT diamond crystals exposed to β -irradiation

Gil-Tolano M.I., Meléndrez R., Castañeda B., Alvarez-Garcia S., Pedroza-Montero M., Soto-Puebla D., Chernov V., Barboza-Flores M.

Physica Status Solidi (A) Applications and Materials Science, Volume 212, Issue 11, Pages 2507-2511, November 2015



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



SÁNCHEZ ZEFERINO RAÚL

Artículos

1. Fabrication, structural properties, and tunable light emission of Sm³⁺, Tb³⁺ co-doped SrSnO₃ perovskite nanoparticles

Pérez-Hernández C.G., Sánchez-Zeferino R., Salazar-Kuri U., Álvarez-Ramos M.E.
Chemical Physics, Volume 55, 1 November 2021, Article number 111324

2. Emulation of evolutionary selection as the growth mechanism of supported layered double hydroxide frameworks

Pedraza-Chan M.S., Salazar-Kuri U., Sánchez-Zeferino R., Ruiz-López I.I., Escobedo-Morales A.
Applied Clay Science, Volume 210, 1 September 2021, Article number 106159

3. Enhanced Stokes-shift and dispersibility in non-polar PMMA solvent of CdTe quantum dots by silica coating

Flores-Pacheco A., Sánchez-Zeferino R., Saavedra-Rodríguez G., Contreras-Rascón J.I., Díaz-Reyes J., Álvarez-Ramos M.E.
Chemical Physics, Volume 544, 1 April 2021, Article number 111102

4. Zinc sulfide quantum dots coated with PVP: applications on commercial solar cells

Melendres-Sánchez J.C., López-Delgado R., Saavedra-Rodríguez G., Carrillo-Torres R.C., Sánchez-Zeferino R., Ayón A., Álvarez-Ramos M.E.
Journal of Materials Science: Materials in Electronics, Volume 32, Issue 2, Pages 1457-1465, January 2021

5. Room temperature CO₂ sensing using Au-decorated ZnO nanorods deposited on an optical fiber

Álvarez-Ramos M.E., Necochea-Chamorro J.I., Carrillo-Torres R.C., Sánchez-Zeferino R.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Materials Science and Engineering B: Solid-State Materials for Advanced Technology, Volume 26, 2 December 2020, Article number 114720

6. Photoluminescent properties of ZnO nanorods films used to detect methanol contamination in tequila

Maldonado-Arriola, J.A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.
Sensors and Actuators, A: Physical, Volume 312, 1 September 2020, Article number 112142

7. Characterisation of chemical bath deposition PbS nanofilms using polyethyleneimine, triethanolamine and ammonium nitrate as complexing agents

Contreras-Rascón, J.I., Díaz-Reyes, J., Luna-Suárez, S., Carrillo-Torres, R.C., Sánchez-Zeferino, R.
Thin Solid Films, Volume 692, 31 December 2019, Article number 137609

8. Sunlight-driven phytochemical synthesis of silver nanoparticles using aqueous extract of *Albizia lebeck* (L) Benth

Félix-Domínguez, F., Carrillo-Torres, R.C., Lucero-Acuña, A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.
Materials Research Express, Volume 6, Issue 12, 27 November 2019, Article number 125060

9. Fiber optic sensor using ZnO for detection of adulterated tequila with methanol

Necochea-Chamorro, J.I., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.
Optical Fiber Technology, Volume 52, November 2019, Article number 101982

10. Co-emission and energy transfer of Sm³⁺ and/or Eu³⁺ activated zinc-germanate-tellurite glass as a potential tunable orange to reddish-orange phosphor

Alvarez-Ramos, M.E., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Caldiño, U., Alvarado-Rivera, J.
Journal of Non-Crystalline Solids, Volume 521, 1 October 2019, Article number 119462

11. Tunable emission and energy transfer in TeO₂-GeO₂-ZnO and TeO₂-GeO₂-MgCl₂ glasses activated with Eu³⁺/Dy³⁺ for solid state lighting applications

Carrillo-Torres, R.C., Saavedra-Rodríguez, G., Alvarado-Rivera, J., Caldiño, U., Sánchez-Zeferino, R., Alvarez-Ramos, M.E.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Journal of Luminescence, Volume 212, August 2019, Pages 116-125

12. ZnS and ZnO nanocomposite for near white light tuning applications

Zazueta-Raynaud, A., Cordova-Rubio, A., Lopez-Delgado, R., Pelayo-Ceja, J.E., Carrillo-Torres, R.C., Sanchez-Zeferino, R., Alvarez-Ramos, M.E., Ayon, A.

2019 Symposium on Design, Test, Integration and Packaging of MEMS and MOEMS, DTIP 2019, May 2019, Article number 8752671

13. Stabilized blue emitting ZnS@SiO₂ quantum dots

Saavedra Rodríguez, G., Carrillo Torres, R.C., Sánchez Zeferino, R., Álvarez Ramos, M.E.

Optical Materials, Volume 89, March 2019, Pages 396-401

14. Seedless synthesis of silver nanoparticles using sunlight and study of the effect of different ratios of precursors

Félix-Domínguez, F., Carrillo-Torres, R.C., Lucero-Acuña, A., Sánchez-Zeferino, R., Álvarez-Ramos, M.E.

Materials Research Express, Volume 6, Issue 4, 30 January 2019

15. Comparative study of kinetic parameters induced by different excitation sources: using a novel and user-friendly glow curve deconvolution spreadsheet

Durán-Muñoz, H., Hernández-Ortíz, M., Sifuentes-Gallardo, C., Galván-Tejeda, J.I., Sánchez-Zeferino, R., Castaño-Meneses, V.M.

Journal of Materials Science: Materials in Electronics, Volume 29, Issue 18, 1 September 2018, Pages 15732-15740

16. Effect of depth of traps in ZnO polycrystalline thin films on ZnO-TFTs performance

Medina-Montes, M.I., Baldenegro-Perez, L.A., Sanchez-Zeferino, R., Rojas-Blanco, L., Becerril-Silva, M., Quevedo-Lopez, M.A., Ramirez-Bon, R.

Solid-State Electronics, Volume 123, 1 September 2016, Pages 119-123

17. Experimental and theoretical investigation on the molecular structure, spectroscopic and electric properties of 2,4-dinitrodiphenylamine, 2-nitro-4-(trifluoromethyl)aniline and 4-bromo-2-nitroaniline

Hernández-Paredes, J., Hernández-Negrete, O., Carrillo-Torres, R.C., Sánchez-Zeferino, R., Duarte-Moller, A., Alvarez-Ramos, M.E.

Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, Volume 149, 5 October 2015, Pages 240-253



"El saber de mis hijos
hará mi grandeza"



VALDES COVARRUBIAS MIGUEL ÁNGEL

ARTÍCULOS

1. Improving cell penetration of gold nanorods by using an amphipathic arginine rich peptide

Riveros A.L., Eggeling C., Riquelme S., Adura C., López-Iglesias C., Guzmán F., Araya E., Almada M., Juárez J., Valdez M.A., Fuentevilla I.A., López O.
International Journal of Nanomedicine, Volume 15, Pages 1837-1851, 2020

2. SiRNA silencing by chemically modified biopolymeric nanovectors

Villar-Alvarez E., Leal B.H., Martínez-González R., Pardo A., Al-Qadi S., Juárez J., Váldez M.A., Cambón A., Barbosa S., Taboada P.
ACS Omega, Volume 4, Issue 2, Pages 3904-3921, 21 February 2019

3. Hybrid folic acid-conjugated gold nanorods-loaded human serum albumin nanoparticles for simultaneous photothermal and chemotherapeutic therapy

Encinas-Basurto D., Ibarra J., Juarez J., Pardo A., Barbosa S., Taboada P., Valdez M.A.

Materials Science and Engineering C, Volume 91, Pages 669-678, 1 October 2018

4. Targeted drug delivery via human epidermal growth factor receptor for sustained release of allyl isothiocyanate

Encinas-Basurto D., Juarez J., Valdez M.A., Burboa M.G., Barbosa S., Taboada P.
Current Topics in Medicinal Chemistry, Volume 18, Issue 14, Pages 1252-1260, 2018

5. Peptide functionalized magneto-plasmonic nanoparticles obtained by microfluidics for inhibition of β -amyloid aggregation

Hassan N., Cordero M.L., Sierpe R., Almada M., Juárez J., Valdez M., Riveros A., Vargas E., Abou-Hassan A., Ruso J.M., Kogan M.J.



"El saber de mis hijos
hará mi grandeza"



Journal of Materials Chemistry B, Volume 6, Issue 31, Pages 5091-5099, 2018

6. Co-encapsulation of magnetic nanoparticles and cisplatin within biocompatible polymers as multifunctional nanoplateforms: Synthesis, characterization, and in vitro assays

Ibarra J., Encinas D., Blanco M., Barbosa S., Taboada P., Juárez J., Valdez M.A.
Materials Research Express, Volume 5, Issue 1, January 2018, Article number 015023

7. Photothermal conversion efficiency and cytotoxic effect of gold nanorods stabilized with chitosan, alginate and poly(vinyl alcohol)

Almada M., Leal-Martínez B.H., Hassan N., Kogan M.J., Burboa M.G., Topete A., Valdez M.A., Juárez J.
Materials Science and Engineering C, Volume 77, Pages 583-593, 1 August 2017

8. Surface Self-Assembly and Properties of Monolayers Formed by Reverse Poly(butylene oxide)-poly(ethylene oxide)-poly(butylene oxide) Triblock Copolymers with Lengthy Hydrophilic Blocks

Villar-Alvarez E., Cambón A., Blanco M., Pardo A., Martínez R., Barbosa S., Valdez M.A., Juárez J., Taboada P.
Journal of Physical Chemistry C, Volume 121, Issue 23, Pages 12684-12695, 15 June 2017

9. Poly(lactic-co-glycolic acid) nanoparticles for sustained release of allyl isothiocyanate: characterization, in vitro release and biological activity

Encinas-Basurto D., Ibarra J., Juárez J., Burboa M.G., Barbosa S., Taboada P., Troncoso-Rojas R., Valdez M.A.
Journal of Microencapsulation, Volume 34, Issue 3, Pages 231-242, 3 April 2017

10. Synthesis and characterization of magnetite/PLGA/chitosan nanoparticles

Ibarra J., Melendres J., Almada M., Burboa M.G., Taboada P., Juárez J., Valdez M.A.
Materials Research Express, Volume 2, Issue 9, September 2015, Article number 095010

11. Oligomers, protofibrils and amyloid fibrils from recombinant human lysozyme (rHL): Fibrillation process and cytotoxicity evaluation for ARPE-19 cell line

Ruiz E.D., Almada M., Burboa M.G., Taboada P., Mosquera V., Valdez M.A., Juárez J.



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



Colloids and Surfaces B: Biointerfaces, Volume 126, Pages 335-343, February 01, 2015

12. Synthesis and characterization of new thiolated chitosan nanoparticles obtained by ionic gelation method

Esquivel R., Juárez J., Almada M., Ibarra J., Valdez M.A.

International Journal of Polymer Science, Volume 2015, 2015, Article number 502058



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



ZAVALA RIVERA PAUL

Artículos

1. Synthesis and characterization of a bioconjugate based on oleic acid and l-cysteine

Vizcarra-Pacheco M., Ley-Flores M., Matrecitos-Burrueal A.M., López-Esparza R., Fernández-Quiroz D., Lucero-Acuña A., Zavala-Rivera P.
Polymers, Volume 13, Issue 11, June-1, 2021, Article number 1791

2. Micelle encapsulation of ferromagnetic nanoparticles of iron carbide@iron oxide in chitosan as possible nanomedicine agent

Sauceda-Oloño P.Y., Cardenas-Sanchez H., Argüelles-Pesqueira A.I., Gutierrez-Valenzuela C., Alvarez-Ramos M.E., Lucero-Acuña A., Zavala-Rivera P.
Colloids and Interfaces, Volume 4, Issue 2, June 2020, Article number 22

3. Aqueous-organic phase transfer of iron oxide@iron carbide nanoparticles using amide-amine modified oleic acid

Argüelles-Pesqueira A., Zavala-Rivera P., Lucero-Acuña A., Guerrero-German P., Durazo A.R., Moreno-Corral R., Tánori J.
MRS Advances, Pages 2075-2083, 2020

4. PLGA nanoparticle preparations by emulsification and nanoprecipitation techniques: Effects of formulation parameters

Hernández-Giottonini, K.Y., Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Peñuñuri-Miranda, O., Zavala-Rivera, P., Guerrero-Germán, P., Lucero-Acuña, A.
RSC Advances, Volume 10, Issue 8, 2020, Pages 4218-4231

5. Biosynthesis of gold and silver nanoparticles using Parkinsonia Florida leaf extract and antimicrobial activity of silver nanoparticles

López-Millán, A., Del Toro-Sánchez, C.L., Ramos-Enríquez, J.R., Carrillo-Torres, R.C., Zavala-Rivera, P., Esquivel, R., Álvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.
Materials Research Express, Volume 6, Issue 9, 5 July 2019, Article number 095025

6. Bioadsorption of copper and zinc with pre-treated and untreated dry biomass of *Escherichia coli*

Terán Valdez, D.P., Monge Amaya, O., Certucha Barragán, M.T., Almendariz Tapia, F.J., Zavala Rivera, P., Sierra Álvarez, Y.R.
Revista Internacional de Contaminación Ambiental, Volume 35, Issue Special Issue 3, 2019, Pages 45-55



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



7. Low intensity sonosynthesis of iron carbide@iron oxide core-shell nanoparticles

Argüelles-Pesqueira, A.I., Diéguez-Armenta, N.M., Bobadilla-Valencia, A.K., Nataraj, S.K., Rosas-Durazo, A., Esquivel, R., Alvarez-Ramos, M.E., Escudero, R., Guerrero-German, P., Lucero-Acuña, J.A., Zavala-Rivera, P.

Ultrasonics Sonochemistry, Volume 49, December 2018, Pages 303-309

8. Effect of freeze-thawing conditions for preparation of chitosan-poly (vinyl alcohol) hydrogels and drug release studies

Figueroa-Pizano, M.D., Vélaz, I., Peñas, F.J., Zavala-Rivera, P., Rosas-Durazo, A.J., Maldonado-Arce, A.D., Martínez-Barbosa, M.E.

Carbohydrate Polymers, Volume 195, 1 September 2018, Pages 476-485

9. Drug release properties of diflunisal from layer-by-layer self-assembled k-carrageenan/chitosan nanocapsules: Effect of deposited layers

Rochín-Wong, S., Rosas-Durazo, A., Zavala-Rivera, P., Maldonado, A., Martínez-Barbosa, M.E., Vélaz, I., Tánori, J.

Polymers, Volume 10, Issue 7, 10 July 2018, Article number 760

10. Poly(N-isopropylacrylamide)-coated gold nanorods mediated by thiolated chitosan layer: Thermo-pH responsiveness and optical properties

Esquivel, R., Canale, I., Ramirez, M., Hernández, P., Zavala-Rivera, P., Álvarez-Ramos, E., Lucero-Acuña, A.

E-Polymers, Volume 18, Issue 2, 23 February 2018, Pages 163-174

11. Evaluation of a combined emulsion process to encapsulate methylene blue into PLGA nanoparticles

Gutiérrez-Valenzuela, C.A., Esquivel, R., Guerrero-Germán, P., Zavala-Rivera, P., Rodríguez-Figueroa, J.C., Guzmán-Z, R., Lucero-Acuña, A.

RSC Advances

Volume 8, Issue 1, 2018, Pages 414-422

12. Removal of iron and manganese from a polluted effluent using a chelating resin

Martínez Meza, R.G., Certucha Barragán, M.T., Zavala Rivera, P., Gómez Álvarez, A., Almazán Holguín, L.A.

Revista Internacional de Contaminacion Ambiental, Volume 33, Issue Special Issue 1, 2017, Pages 55-63



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



13. Aqueous-organic phase transfer of gold and silver nanoparticles using thiol-modified oleic acid

López-Millán, A., Zavala-Rivera, P., Esquivel, R., Carrillo, R., Alvarez-Ramos, E., Moreno-Corral, R., Guzmán-Zamudio, R., Lucero-Acuña, A.
Applied Sciences, Volume 7, Issue 3, 2017, Article number 273

14. Adaptable Ultraviolet Reflecting Polymeric Multilayer Coatings of High Refractive Index Contrast

Smirnov, J.R.C., Ito, M., Calvo, M.E., López-López, C., Jiménez-Solano, A., Galisteo-López, J.F., Zavala-Rivera, P., Tanaka, K., Sivaniah, E., Míguez, H.
Advanced Optical Materials, Volume 3, Issue 11, 1 November 2015, Pages 1633-1639



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



NÚCLEO ACADÉMICO BÁSICO URS



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



ALMADA ORTIZ MARIO EDUARDO

Artículos

1. Improving cell penetration of gold nanorods by using an amphipathic arginine rich peptide

Riveros A.L., Eggeling C., Riquelme S., Adura C., López-Iglesias C., Guzmán F., Araya E., Almada M., Juárez J., Valdez M.A., Fuentesvilla I.A., López O.
International Journal of Nanomedicine, Volume 15, Pages 1837-1851, 2020

2. Cisplatin-loaded PLGA nanoparticles for HER2 targeted ovarian cancer therapy

Domínguez-Ríos R., Sánchez-Ramírez D.R., Ruiz-Saray K., Ocegüera-Basurto P.E., Almada M., Juárez J., Zepeda-Moreno A., del Toro-Arreola A., Topete A., Daneri-Navarro A.
Colloids and Surfaces B: Biointerfaces, Volume 178, Pages 199-207, 1 June 2019

3. Peptide functionalized magneto-plasmonic nanoparticles obtained by microfluidics for inhibition of β -amyloid aggregation

Hassan N., Cordero M.L., Sierpe R., Almada M., Juárez J., Valdez M., Riveros A., Vargas E., Abou-Hassan A., Ruso J.M., Kogan M.J.
Journal of Materials Chemistry B, Volume 6, Issue 31, Pages 5091-5099, 2018

4. Photothermal conversion efficiency and cytotoxic effect of gold nanorods stabilized with chitosan, alginate and poly(vinyl alcohol)

Almada M., Leal-Martínez B.H., Hassan N., Kogan M.J., Burboa M.G., Topete A., Valdez M.A., Juárez J.
Materials Science and Engineering C Volume 77, Pages 583 - 5931 August 2017

5. Growth kinetics of gold nanorods synthesized by a seed-mediated method under pH acidic conditions

Almada M., Ruiz E.D., Ibarra-Hurtado J., Hassan N., Kogan M.J., Cadena-Nava R.D., Valdés M.A., Juárez J.
Journal of Nanoscience and Nanotechnology, Volume 16, Issue 7, Pages 7707-7714, July 2016



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



6. Synthesis and characterization of magnetite/PLGA/chitosan nanoparticles

Ibarra J., Melendres J., Almada M., Burboa M.G., Taboada P., Juárez J., Valdez M.A.

Materials Research Express, Volume 2, Issue 9, September 2015, Article number 095010

7. Oligomers, protofibrils and amyloid fibrils from recombinant human lysozyme (rHL): Fibrillation process and cytotoxicity evaluation for ARPE-19 cell line

Ruiz E.D., Almada M., Burboa M.G., Taboada P., Mosquera V., Valdez M.A., Juárez J.

Colloids and Surfaces B: Biointerfaces, Volume 126, Pages 335-343, February 01, 2015

8. Synthesis and characterization of new thiolated chitosan nanoparticles obtained by ionic gelation method

Esquivel R., Juárez J., Almada M., Ibarra J., Valdez M.A.

International Journal of Polymer Science, Volume 2015, 2015, Article number 502058



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



BALDERRAMA CARMONA ANA PAOLA

Artículos

1. Recent biotechnological advances as potential intervention strategies against COVID-19

Lobo-Galo N., Gálvez-Ruíz J.-C., Balderrama-Carmona A.P., Silva-Beltrán N.P., Ruiz-Bustos E.

3 Biotech, Volume 11, Issue 2, February 2021, Article number 41

2. Herbicide determination in Brazilian propolis using high pressure liquid chromatography

Umsza-Guez M.A., Silva-Beltrán N.P., Machado B.A.S., Balderrama-Carmona A.P. International Journal of Environmental Health Research, Volume 31, Issue 5, Pages 507-517, 2021

3. Antiviral, antioxidant, and antihemolytic effect of annona muricata L. Leaves extracts

Balderrama-Carmona A.P., Silva-Beltrán N.P., Gálvez-Ruiz J.-C., Ruíz-Cruz S., Chaidez-Quiroz C., Morán-Palacio E.F.

Plants, Volume 9, Issue 12, Pages 1-11, December 2020, Article number 1650

4. Antiviral effects of Brazilian green and red propolis extracts on Enterovirus surrogates

Silva-Beltrán N.P., Balderrama-Carmona A.P., Umsza-Guez M.A., Souza Machado B.A.

Environmental Science and Pollution Research, Volume 27, Issue 23, Pages 28510-28517, August 2020

5. Herbicide biomonitoring in agricultural workers in Valle del Mayo, Sonora Mexico

Balderrama-Carmona A.P., Valenzuela-Rincón M., Zamora-Álvarez L.A., Adan-Bante N.P., Leyva-Soto L.A., Silva-Beltrán N.P., Morán-Palacio E.F.

Environmental Science and Pollution Research, Volume 27, Issue 23, Pages 28480-28489, August 2020

6. Severe Leptospirosis in a Mexican Woman

Balderrama-Carmona A.P., Cadena-Orea D., Sánchez-Arteaga S., Aguilera-Ávila M.L., Soñanez-Organis J.G., López-López A.A., Zamora-Alvarez L.A., de Los Ángeles Díaz-Reyes G., Adan-Bante N.P.

Acta medica academica, Volume 49, Issue 1, Pages 67-70, 1 April 2020



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



7. Glyphosate and aminomethylphosphonic acid in population of agricultural fields: Health risk assessment overview

Leyva-Soto L.A., Balderrama-Carmona A.P., Moran-Palacio E.F., Diaz-Tenorio L.M., Gortares-Moroyoqui P.

Applied Ecology and Environmental Research, Volume 16, Issue 4, Pages 5127-5140, 2018

8. Perspectives of Quantitative Risk Assessment Studies for Giardia and Cryptosporidium in Water Samples

Balderrama-Carmona A.P., Gortáres-Moroyoqui P., Álvarez L.H., Ulloa-Mercado R.G., Leyva-Soto L.A., Díaz-Tenorio L.M.

Water, Air, and Soil Pollution, Volume 228, Issue 5, May 2017, Article number 185

9. Quantitative microbial risk assessment of Cryptosporidium and Giardia in well water from a native community of Mexico

Balderrama-Carmona A.P., Gortáres-Moroyoqui P., Álvarez-Valencia L.H., Castro-Espinoza L., Balderas-Cortés J.D.J., Mondaca-Fernández I., Chaidez-Quiroz C., Meza-Montenegro M.M.

International Journal of Environmental Health Research, Volume 25, Issue 5, Pages 570-582, 3 September 2015



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



GARCÍA OCHOA JUAN JOSÉ

Artículos

**1. [Proposal of a model to measure competitiveness through factor analysis]
[Propuesta de un modelo de medición de la competitividad mediante análisis
factorial]**

García Ochoa J.J., León Lara J.D.D., Nuño de la Parra J.P.

Contaduría y Administración, Volume 62, Issue 3, Pages 775-791, July 2017



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



IBARRA HURTADO JAIME MANUEL

Artículos

1. Hybrid folic acid-conjugated gold nanorods-loaded human serum albumin nanoparticles for simultaneous photothermal and chemotherapeutic therapy

Encinas-Basurto D., Ibarra J., Juárez J., Pardo A., Barbosa S., Taboada P., Valdez M.A.

Materials Science and Engineering C, Volume 91, Pages 669-678, 1 October 2018

2. Co-encapsulation of magnetic nanoparticles and cisplatin within biocompatible polymers as multifunctional nanoplatforms: Synthesis, characterization, and in vitro assays

Ibarra J., Encinas D., Blanco M., Barbosa S., Taboada P., Juárez J., Valdez M.A.

Materials Research Express, Volume 5, Issue 1, January 2018, Article number 015023

3. Poly(lactic-co-glycolic acid) nanoparticles for sustained release of allyl isothiocyanate: characterization, in vitro release and biological activity

Encinas-Basurto D., Ibarra J., Juárez J., Burboa M.G., Barbosa S., Taboada P., Troncoso-Rojas R., Valdez M.A.

Journal of Microencapsulation, Volume 34, Issue 3, Pages 231-242, 3 April 2017

4. Growth kinetics of gold nanorods synthesized by a seed-mediated method under pH acidic conditions

Almada M., Ruiz E.D., Ibarra-Hurtado J., Hassan N., Kogan M.J., Cadena-Nava R.D., Valdés M.A., Juárez J.

Journal of Nanoscience and Nanotechnology, Volume 16, Issue 7, Pages 7707-7714, July 2016

5. Synthesis and characterization of magnetite/PLGA/chitosan nanoparticles

Ibarra J., Melendres J., Almada M., Burboa M.G., Taboada P., Juárez J., Valdez M.A.

Materials Research Express, Volume 2, Issue 9, September 2015, Article number 095010

6. Synthesis and characterization of new thiolated chitosan nanoparticles obtained by ionic gelation method

Esquivel R., Juárez J., Almada M., Ibarra J., Valdez M.A.

International Journal of Polymer Science, Volume 2015, 2015, Article number 502058



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física





"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



PACHECO CONTRERAS RAFAEL

Artículos

1. CO₂ adsorption on gas-phase Cu₄-:XP_tx (x = 0-4) clusters: A DFT study

Gálvez-González L.E., Juárez-Sánchez J.O., Pacheco-Contreras R., Garzón I.L., Paz-Borbón L.O., Posada-Amarillas A.
Physical Chemistry Chemical Physics, Volume 20, Issue 25, Pages 17071-17080, 2018

2. Empirical-potential global minima and DFT local minima of trimetallic Ag_lAu_mPt_n (l + m + n = 13, 19, 33, 38) clusters

Pacheco-Contreras R., Juárez-Sánchez J.O., Dessens-Félix M., Aguilera-Granja F., Fortunelli A., Posada-Amarillas A.
Computational Materials Science, Volume 141, Pages 30-40, January 2018

3. Computational studies of stable hexanuclear Cu_lAg_mAu_n (l + m + n = 6; L, m, n > 0) clusters

Posada-Amarillas A., Pacheco-Contreras R., Morales-Meza S., Sanchez M., Schön J.C.
International Journal of Quantum Chemistry, Volume 116, Issue 13, Pages 1006-1015, 5 July 2016

4. Exploring the energy landscape of Pt_xAu_{115-x} nanoalloys

Dessens-Félix M., Pacheco-Contreras R., Cabrera-Trujillo J.M., Montejano-Carrizales J.M., Paz-Borbón L.O., Fortunelli A., Posada-Amarillas A.
Computational and Theoretical Chemistry, Volume 1074, Pages 150-156, December 15, 2015



"El saber de mis hijos
hará mi grandeza"

UNIVERSIDAD DE SONORA

Coordinación del Posgrado en Nanotecnología
Departamento de Física



ROMO GARCÍA FRANK

Artículos

1. Efficiency enhancement of silicon solar cells by silicon quantum dots embedded in ZnO films as down-shifting coating

Higuera-Valenzuela H.J., Ramos-Carrasco A., García-Gutierrez R., Romo-García F., Rangel R., Contreras O.E., Berman-Mendoza D.

Journal of Materials Science: Materials in Electronics, Volume 31, Issue 22, Pages 20561-20570, November 2020

2. Gallium nitride thin films by microwave plasma-assisted ALD

Romo-García F., Higuera-Valenzuela H.J., Cabrera-German D., Berman-Mendoza D., Ramos-Carrasco A., Contreras O.E., García-Gutierrez R.

Optical Materials Express, Volume 9, Issue 11, Pages 4187-41931, November 2019

3. Optoelectronic attenuation behavior of Al₂O₃/ZnO nanolaminates grown by Atomic Layer Deposition

Romo-García F., Higuera-Valenzuela H.J., Cabrera-German D., Berman-Mendoza D., Ramos-Carrasco A., Tiznado H., Hirata G.A., Contreras O.E., García-Gutierrez R.

Thin Solid Films, Volume 669, Pages 419-424, 1 January 2019

4. Novel two-stage method for the synthesis of silicon quantum dots embedded on ZnO matrix

Higuera-Valenzuela H.J., Romo-García F., Cabrera-German D., Ramos-Carrasco A., Rosas-Burgos R., García-Gutierrez R., Contreras O.E., Berman-Mendoza D.

Materials Letters, Volume 228, Pages 157-159, 1 October 2018

5. Modulation of argon pressure as an option to control transmittance and resistivity of ZnO:Al films deposited by DC magnetron sputtering: On the dark yellow films at 10⁻⁷ Torr base pressures

García-Valenzuela J.A., Cabrera-German D., Cota-Leal M., Suárez-Campos G., Martínez-Gil M., Romo-García F., Baez-Gaxiola M.R., Sotelo-Lerma M., Andreu J., Bertomeu J.

Revista Mexicana de Física, Volume 64, Issue 6, Pages 566-576, 2018