

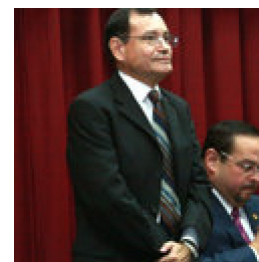
Marcelino Barboza-Flores

Bio espectroscopías e imagenologías en nanoplataformas médicas

Departamento de Investigación en Física

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Intereses de la investigación

Diseño y fabricación de nuevos materiales micro y nanoestructurados, aplicaciones biomédicas, detectores de radiación ionizante y no ionizante. Propiedades ópticas, defectos, termoluminiscencia, luminiscencia ópticamente estimulada en materiales aislantes. Aplicaciones de la termoluminiscencia y la luminiscencia ópticamente estimulada para usos biomédico y detección de alimentos previamente irradiados con fines de esterilización.

Titulaciones

Doctorado, New York University

Fecha de concesión: 15 jun. 1988

Empleo

Bio espectroscopías e imagenologías en nanoplataformas médicas

México

1 ene. 1942 → present

Departamento de Investigación en Física

México

1 ene. 1942 → present

Resultado de la investigación

Study of fluorescent nanodiamonds concentrations in aqueous solutions for biological applications

Pedroza-Montero, F. A., Pedroza-Montero, J. N., Álvarez-Bajo, O., Silva-Campa, E., Soto-Puebla, D. & Barboza-Flores, M., jun. 2023, En: *Optical Materials*. 140, 113872.

Thermal Annealing Effect on the Thermoluminescence Properties of Commercial High-Pressure High-Temperature Diamond Powders

Calderón-Martínez, M. C., Gil-Tolano, M. I., Cruz-Zaragoza, E., Meléndrez, R., Chernov, V. & Barboza-Flores, M., feb. 2023, En: *Physica Status Solidi (A) Applications and Materials Science*. 220, 4, 2200279.

Effect of reducing and oxidizing atmosphere on photoluminescence of undoped and Eu doped nanostructured CaAl_2O_4

Chernov, V., Piters, T. M., Ruiz-Torres, R., Salas-Castillo, P., Zúñiga-Rivera, N. J., Meléndrez, R. & Barboza-Flores, M., nov. 2022, En: *Journal of Luminescence*. 251, 119196.

Optical properties and functional groups characterization of commercial HPHT micro-diamond samples

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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., 7 jul. 2021, En: *Physics in Medicine and Biology*. 66, 13, 135007.

Thermoluminescence properties of high-dose gamma-irradiated diamond films

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

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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., 15 abr. 2020, En: *Science of the Total Environment*. 713, 136481.

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., Díaz-Torres, L. A., Meléndrez, R. & Barboza-Flores, M., mar. 2020, En: *Optical Materials*. 101, 109763.

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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

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Montes-Gutierrez, J. A., Alcantar-Pena, J. J., de Obaldía, E., Zuniga-Rivera, N. J., Chernov, V., Meléndrez-Amavizca, R., Barboza-Flores, M., Garcia-Gutierrez, R. & Auciello, O., may. 2018, En: *Diamond and Related Materials*. 85, p. 117-124 8 p.

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

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

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

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Thermoluminescence studies on HPHT diamond crystals exposed to β -irradiation

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Synthesis and characterization of highly luminescent beryllium nitride

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Dose enhancing behavior of hydrothermally grown Eu-doped SnO₂ nanoparticles

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Assessment of OEP health's risk in nuclear medicine

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Persistent luminescence and thermoluminescence of UV/VIS -irradiated SrAl₂O₄: Eu²⁺, Dy³⁺ phosphor

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Cursos

DESARROLLO EXPERIMENTAL I

Marcelino Barboza-Flores

11/01/16 → 7/08/16

DESARROLLO EXPERIMENTAL I

Marcelino Barboza-Flores

13/08/18 → 13/01/19

DESARROLLO EXPERIMENTAL II

Marcelino Barboza-Flores

14/01/19 → 11/08/19

DESARROLLO EXPERIMENTAL II

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8/08/16 → 15/01/17

FÍSICA CONTEMPORÁNEA

Marcelino Barboza-Flores
14/08/17 → 14/01/18

FÍSICA CONTEMPORÁNEA

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INTRODUCCIÓN A LA FÍSICA CUÁNTICA

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MECÁNICA CUÁNTICA

Marcelino Barboza-Flores
7/08/23 → 7/01/24

MECÁNICA CUÁNTICA

Marcelino Barboza-Flores
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MECÁNICA CUÁNTICA

Marcelino Barboza-Flores
8/01/24 → 4/08/24

MECÁNICA CUÁNTICA

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MECÁNICA I

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10/01/22 → 7/08/22

MECÁNICA I

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MECÁNICA I

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TÓPICOS SELECTOS DE NANOTECNOLOGÍA

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