

MEMORIA DE INVESTIGACIÓN DEL DEPARTAMENTO DE FÍSICA DE MATERIALES 2017

	ARTICULOS	OTRAS PUBLICACIONES
BIOLOGIA	124	9
BIOLOGIA MOLECULAR	100	11
ECOLOGIA	62	5
FISICA APLICADA	25	7
FISICA DE MATERIALES	26	7
FISICA DE LA MATERIA CONDENSADA	68	2
FISICA TEORICA	172	12
FISICA TEORICA DE LA MATERIA CONDENSADA	38	3
GEOLOGIA	36	10
MATEMATICAS	85	6
QUIMICA	46	5
QUIMICA AGRICOLA	23	2
QUIMICA ANALITICA	9	2
QUIMICA FISICA APLICADA	111	2
QUIMICA INORGANICA	21	1
QUIMICA ORGANICA	44	3
FACULTAD DE CIENCIAS	942	79

ARTÍCULOS DE FÍSICA DE MATERIALES (26)

Castellanos-Gómez, Andres; Palacios, J. J.; Ferrer, Isabel J.; van der Zant, Herre S. J.; Rubio-Bollinger, Gabino; Agrait, Nicolas; Sanchez, Carlos; Leardini, Fabrice; Flores, Eduardo; Ares, Jose Ramon; Clamagirand, Jose Manuel; Paz, Wendel S.; Island, Joshua O.; Molina Mendoza, Aday Jose (2017). High Current Density Electrical Breakdown of TiS₃ Nanoribbon-Based Field-Effect Transistors. *ADVANCED FUNCTIONAL MATERIALS*, 27(13).DOI: 10.1002/adfm.201605647

del Rosal B; Ximendes E; Rocha U; Jaque D (2017). In Vivo Luminescence Nanothermometry: from Materials to Applications. *ADVANCED OPTICAL MATERIALS*, 5(1).DOI: 10.1002/adom.201600508

Elvira, Iris; Muñoz-Martínez, Juan F.; Jubera, Mariano; García-Cabañes, Angel; Bella, José L.; Haro-González, Patricia; Díaz-García, María; Agulló-López, Fernando; Carrascosa, Mercedes (2017). Plasmonic enhancement in the fluorescence of organic and biological molecules by photovoltaic tweezing assembly. *ADVANCED MATERIALS TECHNOLOGIES* 2, 1700024. COI: 10.1002/admt.201700024.

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Gačević Ž; Holmes M; Chernysheva E; Müller M; Torres-Pardo A; Veit P; Bertram F; Christen J; González Calbet J; Arakawa Y; CALLEJA E; Lazić S (2017). Emission of Linearly Polarized Single Photons from Quantum Dots Contained in Nonpolar, Semipolar, and Polar Sections of Pencil-Like InGa_N/Ga_N Nanowires. *ACS PHOTONICS*, 4(3), 657-664. DOI: 10.1021/acsp Photonics.6b01030

Galvis Escobar A; Chaise A; Iosub V; Salque B; Fernández J; Gillia O (2017). Stress effect on the swelling/shrinking behavior of an AB₂ alloy during hydrogenation cycles. *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, 42(35), 22422-22431. DOI: 10.1016/j.ijhydene.2017.03.145

Gómez-Tornero A; Tserkezis C; Mateos L; Bausa L; Ramirez M (2017). 2D Arrays of Hexagonal Plasmonic Necklaces for Enhanced Second Harmonic Generation. *ADVANCED MATERIALS*, 29(15).DOI: 10.1002/adma.201605267

González-Mancebo, Daniel; Becerro, Ana Isabel; Cantelar, Eugenio; Cusso Pérez, Fernando; Briat, Arnaud; Boyer, Damien; Ocana, Manuel (2017). Crystal structure, NIR luminescence and X-ray computed tomography of Nd³⁺:Ba_{0.3}Lu_{0.7}F_{2.7} nanospheres. *DALTON TRANSACTIONS*, 46(20), 6580-6587. DOI: 10.1039/c7dt00453b

Grbović Novaković, Jasmina; Novaković, Nikola; Mongstad, Trygve; Šturm, Sašo; Ares, Jose Ramon; Ivanović, Nenad; Kurko, Sandra; Rašković-Lovre, Željka; Fernández Rios, Jose Fco (2017). In-situ desorption of magnesium hydride irradiated and non-irradiated thin films: Relation to optical properties. *JOURNAL OF ALLOYS AND COMPOUNDS*, 695, 2381-2388. DOI: 10.1016/j.jallcom.2016.11.128

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Labrador-Páez L, Pedroni M, Smits K, Speghini A, Jaque F, García-Solé J, Jaque D, Haro-González P (2017). Core-Shell Engineering to Enhance the Spectral Stability of Heterogeneous Luminescent Nanofluids. *PARTICLE AND PARTICLE SYSTEMS CHARACTERIZATION*, 34(12).DOI: 10.1002/ppsc.201700276

Labrador-Páez L; Jovanović D; Marqués M; Smits K; Dolić S; Jaque F; Stanley H; Dramićanin M; García-Solé J; Haro-González P; Jaque D (2017). Unveiling Molecular Changes in Water by Small Luminescent Nanoparticles. *SMALL*, 13(30).DOI: 10.1002/smll.201700968

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Martínez-Criado G; Alén B; Sans J; Lozanogorrín A; Haro-González P; Martín I; Lavín V (2017). X-ray nanoimaging of Nd³⁺ optically active ions embedded in Sr_{0.5}Ba_{0.5}Nb₂O₆ nanocrystals. OPTICAL MATERIALS EXPRESS, 7(7), 2424-2431. DOI: 10.1364/OME.7.002424

Muñoz-Martínez, Juan F.; Ramiro, Jose B.; Alcazar, Angel; García-Cabanes, Angel; Carrascosa, Mercedes (2017). Electrophoretic Versus Dielectrophoretic Nanoparticle Patterning Using Optoelectronic Tweezers. PHYS REV APPL, 7(6), 064027-. DOI: 10.1103/PhysRevApplied.7.064027

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P. Rodríguez-Sevilla, K. Prorok, A. Bednarkiewicz, M.I. Marqués, A. García-Martín, J. Garcia-Sole, P. Haro-González, D. Jaque. (2017) "Optical forces at the nanoscale: size and electrostatic effects" Nano Letters. DOI: 10.1021/acs.nanolett.7b04804

P. Rodríguez-Sevilla, L. Labrador-Páez, D. Jaque, P. Haro-González. (2017) Review: "Optical trapping for biosensing: materials and applications" Journal of Material Chemistry B. DOI: 10.1039/C7TB01921A

I. Elvira, J.F. Muñoz-Martínez, M. Jubera, A.I. García-Cabañes, J.L. Bella, P. Haro-González, M.A. Díaz-García, F. Agulló-López, M. Carrascosa. (2017) "Plasmonic Enhancement in the Fluorescence of Organic and Biological Molecules by Photovoltaic Tweezing Assembly" Advanced Materials Technologies. DOI: 10.1002/admt.201700024

G.R. Castillo, L. Labrador-Páez, F. Chen, S. Camacho-López and J. R. Vázquez de Aldana. (2017) "Depressed-Cladding 3-D Waveguide Arrays Fabricated With Femtosecond Laser Pulses" Journal of Lightwave Technology. DOI: 10.1109/JLT.2017.2696163.

OTRAS PUBLICACIONES (7)

En esta sección incluimos capítulos de libros, conferencias publicadas, editoriales, erratum, meeting-abstract y short survey

Conferencia Publicada

F. Díaz; M. Aguiló; M.C. Pujol; J. Solís; J. del Hoyo; E. Cantelar; J. Martínez de Mendivil; Cantelar Alcaide, Eugenio Francisco (2017). Ridge waveguide lasers based on fs-laser writing on rare-earth doped crystals.

Meeting-Abstract

Elvira I; Muñoz-Martínez J; Ramiro J; Barroso A; Denz C; García-Cabañes A; Agullo-lópez F; Carrascosa M (2017). Orientation and patterning of zeolite micro-crystals on photorefractive templates. JOURNAL OF PHYSICS: CONFERENCE SERIES, 867(1), -. DOI: 10.1088/1742-6596/867/1/012019

Fabà J; Puerto A; Muñoz-Martínez J; Mendez A; Alcazar A; García-Cabañes A; Carrascosa M (2017). Nanoparticle manipulation and trapping by the synergy between the photovoltaic and pyroelectric effects. JOURNAL OF PHYSICS: CONFERENCE SERIES, 867(1), -. DOI: 10.1088/1742-6596/867/1/012038

Muñoz-Martínez J; Alcazar A; Elvira I; Ramiro J; García-Cabañes A; Arizmendi L; Carrascosa M (2017). Optoelectronic tweezers based on photorefractive space charge fields: Recent achievements and challenges. JOURNAL OF PHYSICS: CONFERENCE SERIES, 867(1), -. DOI: 10.1088/1742-6596/867/1/012030

Muñoz-Martínez J; Martín G; Alcazar A; Carrascosa M (2017). Nanoparticle Gratings for Compact Spectrometers: An Application of Photovoltaic Tweezers. JOURNAL OF PHYSICS: CONFERENCE SERIES, 867(1), -. DOI: 10.1088/1742-6596/867/1/012032

Rodríguez-Sevilla P, Zhang Y, De Sousa N, Marqués M, Sanz-Rodríguez F, Jaque D, Liu X, Haro-González P (2017). Microrheometric upconversion-based techniques for intracellular viscosity

measurements. PROCEEDINGS OF SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, 10347, UNSP 1034715. DOI: 10.1117/12.2275944

Rodríguez-Sevilla P, Zhang Y, Haro-González P, Sanz-Rodríguez F, Jaque F, Garcíá Sole J, Liu X, Jaque D (2017). Avoiding induced heating in optical trap. PROCEEDINGS OF SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING, 10347, UNSP 1034716. DOI: 10.1117/12.2276355

TESIS DOCTORALES LEIDAS EN 2017

Título: *“Trisulfuros metálicos bidimensionales para fotogeneración y acumulación de hidrógeno”*

Doctorando: Eduardo E. Flores Cuevas

Fecha: 27 de julio de 2017.

Calificación: SOBRESALIENTE CUM LAUDE

Directores: José Ramón Ares Fernández e Isabel Jiménez Ferrer

Título: Conversión UV-VIS e IR-VIS en micro- y nano-fósforos basados en NaGdF₄ Y (RE)PO₄ activados con tierras raras

Doctorando: Jorge García Sevillano

Fecha de lectura: Septiembre 2017

Calificación: Sobresaliente cum laude.

Director: Eugenio Cantelar

Título: Light induced interactions between nanoparticles in complex fields

Doctorando: Jorge Luis Hita

Fecha: 1 de Septiembre 2017

Calificación: Sobresaliente cum laude

Directores: Juan José Sáenz y Manuel Ignacio Marqués

Título: *“Nanomateriales para terapia e imagen en el infrarrojo”*

Doctorando: Blanca del Rosal Rabes.

Fecha: Enero 2017.

Calificación: Sobresaliente cum laude

Directores: Daniel Jaque y Francisco Sanz Rodríguez. UAM.

Título: *“Fabrication and Characterization of waveguide structures in transparent optical materials”*

Doctorando: He Ruiyun. Tesis en régimen de cotutela entre la UAM y la Universidad de Shandong.

Fecha: Mayo de 2017.

Calificación: Sobresaliente cum laude

Directores: Daniel Jaque y Prof. Feng Chen de la Universidad de Shandong.

Título: *“Optical trapping of unconverted particles: fundamentals and applications”*

Doctorando: Paloma Rodríguez Sevilla,

Fecha: Julio 2017.

Calificación: Sobresaliente cum laude.

Directores; Daniel Jaque y Patricia Haro.

Título: *“Single photon source based on InGaN/GaN dot-in-a-wire heterostructure”*

Doctorando: Ekaterina Chernysheva

Fecha: enero 2017

Calificación: Sobresaliente "cum Laude"

Directora: Snezana Lazic