Tesis leídas en el curso 2019-2020

Doctorando	Titulo	Directores	Calificación
BORYANKA PETROVA BORISOVA	BIOSENSORES ELECTROQUÍMICOS BASADOS EN NANOMATERIALES PARA ANÁLISIS DE ALIMENTOS.NANOMATERIALS BASED ELECTROCHEMICAL BIOSENSORS FOR FOOD ANALYSIS.	ALFREDO SANCHEZ SANCHEZ / JOSE MANUEL PINGARRON CARRAZON / REYNALDO VILLALONGA SANTANA	Sobresaliente cum laude

B. Borisova, J. Ramos, P. Díez, A. Sánchez, C. Parrado, E. Araque, R. Villalonga, J.M. Pingarrón (2015) A layer-by-layer biosensing architecture based on polyamidoamine dendrimer and carboxymethylcellulose-modified graphene oxide. Electroanalysis 27: 2131–2138.

B. Borisova, A. Sánchez, S. Jiménez-Falcao, M. Martín, P. Salazar, C. Parrado, J.M. Pingarrón, R. Villalonga (2016) Reduced graphene oxide-carboxymethylcellulose layered with platinum nanoparticles/PAMAM dendrimer/magnetic nanoparticles hybrids. Application to the preparation of enzyme electrochemical biosensors. Sensors & Actuators: B. Chemical 232: 84-90.

B. Borisova, M. L. Villalonga, M. Arévalo-Villena, A. Boujakhrout, A. Sánchez, C. Parrado, J. M. Pingarrón, A. Briones-Pérez, R. Villalonga (2017) Disponsable electrochemical immunosensor for Brettanomyces bruxellensis based on nanogold-reduced graphene oxide hybrid nanomaterial. Analitycal and Bioanalitycal Chemistry 409: 5667-5674.

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Doctorando	Titulo	Directores	Calificación
MARIA ANGELES BENAVENTE RUIZ	INNOVACIÓN EN LA CIENCIA FORENSE NUCLEAR DE LA DETECCIÓN DE MATERIALES NUCLEARES Y RADIACTIVOS PARA LA LUCHA CONTRA LA AMENAZA NRBQE.	JAVIER QUIÑONES DIEZ / JOSÉ CARLOS SÁEZ VERGARA / ALICIA ÁLVAREZ GARCÍA (CIEMAT)	Sobresaliente cum laude

Javier Quiñones Díez, C. Aranaz, M.R. Quesada, C. Aguado, A. Álvarez, M.A. Benavente, C. Gómez, J.C. Saez, HADES Field Exercise. Outcomes from synergy. CBRN Book series, Aracne editrice, 2019.

Javier Quiñones Díez, C. Aranaz, M.R. Quesada, C. Aguado, A. Álvarez, M.A. Benavente, C. Gómez, J.C. Saez, HADES Field Exercise. Outcomes from synergy between military and science professionals. The 4th International CBRNe workshop series. “Countering radiological and nuclear threats”, Marter CBRNe, Unversidad de Pisa, 2018, ISBN 978-88-949-8210-7

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MIKHEIL KHARBEDIA	HIDRODINÁMICA SUPERFICIAL EN MATERIA BLANDA: TURBULENCIA DE ONDAS Y ORGANIZACIÓN EMERGENTE.	FRANCISCO MONROY MUÑOZ	Sobresaliente cum laude
Kharbedia, Mikheil, et al. "Moulding hydrodynamic 2D-crystals upon parametric Faraday waves in shear-functionalized water surfaces." Nature communications 12.1 (2021): 1-11.			

Doctorando	Titulo	Directores	Calificación
ESTHER SANCHEZ TIRADO	MONITORIZACIÓN DE BIOMARCADORES DE ENVEJECIMIENTO EN MUESTRAS CLÍNICAS CON INMUNOSENSORES ELECTROQUÍMICOS	ARACELI GONZALEZ CORTES / JOSE MANUEL PINGARRON CARRAZON / PALOMA YAÑEZ-SEDEÑO ORIVE	Sobresaliente cum laude
An electrochemical immunosensor for adiponectin using reduced graphene oxide-carboxymethylcellulose hybrid as electrode scaffold, C.B. Arenas, E. SÁNCHEZ-TIRADO, I. Ojeda, C.A. Gómez-Suárez, A. González-Cortés, R. Villalonga, P. Yáñez-Sedeño, J.M. Pingarrón, Sensors and Actuators B: Chemical, 2016, 223, 89–94 Carbon nanotubes functionalized by click chemistry as scaffolds for the preparation of electrochemical immunosensors. Application to the determination of TGF-beta 1 cytokine, E. SÁNCHEZ-TIRADO, A. González-Cortés, P. Yáñez-Sedeño, J.M. Pingarrón, Analyst, 2016, 141, 5730–5737 Electrochemical immunosensor for the determination of 8-isoprostane aging biomarker using carbon nanohorns-modified disposable electrodes, E. SÁNCHEZ-TIRADO, A. González-Cortés, M. Yudasaka, S. Iijima, F. Langa, P. Yáñez-Sedeño, J.M. Pingarrón, Journal of Electroanalytical Chemistry, 2017, 793, 197–202 Electrochemical immunosensor for simultaneous determination of interleukin-1 beta and tumor necrosis factor alpha in serum and saliva using dual screen-printed electrodes modified with functionalized double-walled carbon nanotubes, E. SÁNCHEZ-TIRADO, C. Salvo, A. González-Cortés, P. Yáñez-Sedeño, F. Langa, J.M. Pingarrón, Analytica Chimica Acta, 2017, 959, 66–73 Viologen-functionalized single-walled carbon nanotubes as carrier nanotags for electrochemical immunosensing. Application to TGF-β1 cytokine, E. SÁNCHEZ-TIRADO, L.M. Arellano, A. González-Cortés, P. Yáñez-Sedeño, F. Langa, J.M. Pingarrón, Biosensors and Bioelectronics, 2017, 98, 240–247 Magnetic multiwalled carbon nanotubes as nanocarrier tags for sensitive determination of fetuin in saliva, E. SÁNCHEZ-TIRADO, A. González-Cortés, P. Yáñez-Sedeño, J.M. Pingarrón, Biosensors and Bioelectronics, 2018, 113, 88–94 Amperometric determination of endoglin in human serum using disposable immunosensors constructed with poly(pyrrolepropionic) acid-modified electrodes, E. Martínez-Periñán, E. SÁNCHEZ-TIRADO, A. González-Cortés, R. Barderas, J.M. Sánchez-Puelles, L. Martínez-Santamaría, S. Campuzano, P. Yáñez-Sedeño, J.M. Pingarrón, Electrochimica Acta, 2018, 292, 887–894 Electrochemical immunosensor for the determination of the cytokine interferon gamma (IFN-γ) in saliva, E. SÁNCHEZ-TIRADO, A. González-Cortés, P. Yáñez-Sedeño, J.M. Pingarrón, Talanta, 2020, 211, 120761			

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BEATRIZ GOMEZ GOMEZ	SÍNTESIS Y CARACTERIZACIÓN DE NANOPARTÍCULAS METÁLICAS Y DE METALOIDES. EVALUACIÓN DE SU INTERACCIÓN CON POBLACIONES BACTERIANAS PARA APLICACIONES EN EL ÁMBITO ALIMENTARIO.	MARIA YOLANDA MADRID ALBARRAN / MARIA TERESA PEREZ CORONA	Sobresaliente cum laude

Rosales-Conrado, N., Gómez-Gómez, B., Matías-Solre, J., Pérez-Corona, T., Madrid, Y. Comparative study of tea varieties for green synthesis of tellurium-based nanoparticles. Microchem. J., 2021, 169, 106511. doi: 10.1016/j.microc.2021.106511

Abad-Álvaro, I., Leite, D., Bartczak, D., Cuello-Nunez, S., Gómez-Gómez, B., Madrid, Y., Aramendia, M., Resano, M., Goenaga-Infante, H. An insight into the determination of size and number concentration of silver nanoparticles in blood using single particle ICP-MS (spICP-MS): feasibility of application to samples relevant to in vivo toxicology studies. J. Anal. At. Spectrom., 2021. doi: 10.1039/D1JA00068C

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Doctorando	Titulo	Directores	Calificación
DAVID CHICHARRO VACAS	ESTUDIO DE LA FOTODISOCIACIÓN Y FOTOIONIZACIÓN DE RADICALES LIBRES POR IMÁGENES DE IONES Y FOTOELECTRONES.	SONIA MARGGI POULLAIN / LUIS BAÑARES MORCILLO	Sobresaliente cum laude

"Imaging the photodissociation dynamics of the methyl radical from the 3s and 3pz Rydberg states". Sonia Marggi Poullain, David V. Chicharro, Alexandre Zanchet, Marta G. González, Luis Rubio-Lago, María L. Senent, Alberto García-Vela and Luis Bañares. Phys. Chem. Chem. Phys., 2016,18, 17054-17061. DOI: doi: 10.1039/C6CP01558A

"Site-specific hydrogen-atom elimination in photoexcited ethyl radical". David V. Chicharro, Sonia Marggi-Poullain, Alexandre Zanchet, Aymen Bouallagui, Alberto García-Vela, María L. Senent, Luis Rubio-Lago and Luis Bañares. Chem. Sci., 2019,10, 6494-6502. DOI: doi: 10.1039/C9SC02140J

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"Threshold Photoelectron Spectroscopy of the CH_2I, CHI, and CI Radicals". David V. Chicharro, Helgi Rafn Hrodmarsson, Aymen Bouallagui, Alexandre Zanchet, Jean-Christophe Loison, Gustavo A. García, Alberto García-Vela, Luis Bañares, and Sonia Marggi Poullain. J. Phys. Chem. A 2021, 125, 28, 6122–6130. DOI: doi: 10.1021/acs.jpca.1c03874

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Doctorando	Titulo	Directores	Calificación
ESTEFANIA FERNANDEZ BARTOLOME	NUEVOS MATERIALES CONMUTABLES HÍBRIDOS PARA APLICACIONES COMO SENSORES A NIVEL MOLECULAR.	JOSÉ SÁNCHEZ COSTA (IMDEA)	Sobresaliente cum laude

Fernandez-Bartolome, Estefania; Santos, Jose; Gamonal, Arturo; Khodabakhshi, Saeed; McCormick McPherson, Laura; Teat, Simon; Sañudo, E. Carolina; Costa, José Sánchez; Martin, Nazario. (2018). A Three-dimensional Dynamic Supramolecular "Sticky Fingers" Organic Framework. Angewandte Chemie. doi: 10.1002/ange.201812419.

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Estefania Fernandez-Bartolomé, Arturo Gamonal, Jose Santos, Saeed Khodabakhshi, Eider Rodriguez, E Carolina Sañudo, Nazario Martín and Jose Sanchez Costa. "Playing with the Weakest Supramolecular Interactions in a 3D Crystalline Hexakis [60] Fullerene Induces Control over Hydrogenation Selectivity", ***Chem. Sci.***, 2021, 12, 8682-8688. doi: 10.1039/D1SC00981H

Doctorando	Titulo	Directores	Calificación
JAVIER GARCIA FERNANDEZ	INFLUENCIA DEL ORDEN ESTRUCTURAL EN EL COMPORTAMIENTO LUMINISCENTE DE ÓXIDOS TRANSPARENTES CONDUCTORES COMPLEJOS.	JOSE MARIA GONZALEZ CALBET / JULIO RAMIREZ CASTELLANOS	Sobresaliente cum laude

Jaime Dolado, Javier García-Fernández, Pedro Hidalgo, José González-Calbet, Julio Ramírez-Castellanos, Bianchi Méndez, Intense cold-white emission due to native defects in Zn2GeO4 nanocrystals, Journal of Alloys and Compounds, 898, 2022, 162993, doi: 10.1016/j.jallcom.2021.162993

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Javier García-Fernández, Marina García-Carrión, Almudena Torres-Pardo, Ruth Martínez-Casado, Julio Ramírez-Castellanos, Emilio Nogales, Jose González-Calbet and Bianchi Méndez. New insights into the luminescence properties of a Na stabilized Ga–Ti oxide homologous series. J. Mater. Chem. C, 2020,8, 2725-2731. doi: 10.1039/C9TC05472C

J. García-Fernández, J. Bartolomé, A. Torres-Pardo, A. Peche-Herrero, J. Moreno, J. Ramírez-Castellanos, A. Cremades, J. M. González-Calbet and J. Piqueras Structural characterization at the atomic level and optical properties of the ZnkIn2Ok+3 ($3 \leq k \leq 13$) system. J. Mater. Chem. C, 2017,5, 10176-10184. doi: 10.1039/C7TC02178J

Doctorando	Titulo	Directores	Calificación
JAVIER RODRIGUEZ DÍAZ	DINÁMICA Y ESPECTROSCOPÍA LÁSER DE AGREGADOS DE VAN DER WAALS DE MOLÉCULAS DE INTERÉS BIOLÓGICO Y AMONIACO EN CONDICIONES DE MICROSOLVATACIÓN.	LUIS RUBIO LAGO / LUIS BAÑARES MORCILLO	Sobresaliente cum laude

A slice imaging and multisurface wave packet study of the photodissociation of CH3I at 304 nm. doi: 10.1039/c0cp02515a

Photodissociation of pyrrole-ammonia clusters by velocity map imaging: mechanism for the H-atom transfer reaction. doi: 10.1039/c0cp01442g

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Stereodynamics of the Photodissociation of Nitromethane at 193 nm: Unravelling the Dissociation Mechanism. doi: 10.1021/jp403272x

Direct evidence of hydrogen-atom tunneling dynamics in the excited state hydrogen transfer (ESHT) reaction of phenol-ammonia clusters. doi: 10.1039/C3CP54362E

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