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PUBLICATIONS 2019

Post-synthetic modification of covalent organic frameworks.

J.L. Segura, S. Royuela, M.M. Ramos.

Chemical Society Reviews. **2019**, 48, 3903.

Energy Alignment and Recombination in Perovskite Solar Cells: Weighted Influence on the Open Circuit Voltage.

I. Gelmetti, N. F. Montcada, A. Pérez-Rodríguez, E. Barrena, C. Ocal, I. García-Benito, A. Molina-Ontoria, N. Martín, A. Vidal-Ferran, E. Palomares.

Energy & Environmental Science. **2019**, 12, 1309-1316.

Engineering Transport in Manganites by Tuning Local Nonstoichiometry in Grain Boundaries.

F. Chiabrera, I. Garbayo, L. López-Conesa, G. Martín, A. Ruiz-Caridad, M. Walls, L. Ruiz-

González, A. Kordatos, M. Núñez, A. Morata, S. Estradé, A. Chroneos, F. Peiró, A. Tarancón.

Advanced Materials. **2019**, 31, 1805360.

Giant Enhancement in the Supercapacitance of NiFe–Graphene Nanocomposites Induced by a Magnetic Field.

J. Romero, H. Prima-García, M. Varela, S.G. Miralles, V. Oestreicher, G. Abellán, E. Coronado.

Advanced Materials. **2019**, 31(28), 1900189.

Energy Storage: Giant Enhancement in the Supercapacitance of NiFe–Graphene Nanocomposites Induced by a Magnetic Field (*Adv. Mater.* 28/2019).

J. Romero, H. Prima-García, M. Varela, S.G. Miralles, V. Oestreicher, G. Abellán, E. Coronado.

Advanced Materials. **2019**, 31(28), 1970200.

Chiral Molecular Carbon Nanostructures.

J.M. Fernández-García, P.J. Evans, S. Filippone, M.A. Herranz, N. Martín.

Accounts of Chemical Research. **2019**, 52, 1565-1574.

Giant topological Hall effect in correlated oxide thin films.

L. Vistoli, W. Wang, A. Sander, Q. Zhu, B. Casals, R. Cichelero, A. Barthélémy, S. Fusil, G.

Herranz, S. Valencia, R. Abrudan, E. Weschke, K. Nakazawa, H. Kohno, J. Santamaria, W. Wu, V.

García, M. Bibes.

Nature Physics. **2019**, 15(1), 67-72.

The Legacy of Sir Harold W. Kroto: Fullerenes and Beyond.

N. Martín.

Chem. **2019**, 5, 733-738.

Mesoporous silica nanoparticles for drug delivery.

M. Manzano, M. Vallet Regí.

Advanced Functional Materials. **2019**, Invited Review. 1902634.

Unraveling Concomitant Packing Polymorphism in Metallosupramolecular Polymers.

A. Langenstroer, K.K. Kartha, Y. Dorca, J. Droste, V. Stepanenko, R.Q. Albuquerque, M.R. Hansen, L. Sánchez, G. Fernández.

Journal of the American Chemical Society. **2019**, 141, 5192-5200.

Decoding the Consequences of Increasing the Size of Self-Assembling Tricarboxamides on Chiral Amplification.

E.E. Greciano, J. Calbo, J. Buendía, J. Cerdá, J. Aragón, E. Ortí, L. Sánchez.

Journal of the American Chemical Society. **2019**, 141, 7463-7472.

Synthesis of Highly Efficient Multivalent Disaccharide/ [60]Fullerene Nanoballs for Emergent Viruses.

J. Ramos-Soriano, J. J. Reina, B. M. Illescas, N. de la Cruz, L. Rodríguez-Pérez, F. Lasala, J. Rojo, R. Delgado, N. Martín.

Journal of the American Chemical Society. **2019**, 141(38), 15403-15412.

Noncovalent synthesis of self-assembled nanotubes through decoupled hierarchical cooperative processes.

V. Vázquez-González, M. J. Mayoral, R. Chamorro, M.M.R.M. Hendrix, I. K. Voets, D. González-Rodríguez.

Journal of the American Chemical Society. **2019**, 141, 16432-16438.

Disconnecting symmetry breaking from seeded growth for the reproducible synthesis of high quality gold nanorods.

G. González-Rubio, V. Kumar, P. Llombart, P. Díaz-Núñez, E. Bladt, T. Altantzis, S. Bals, O. Peña-Rodríguez, E.G. Noya, L.G. MacDowell, A. Guerrero-Martínez, L.M. Liz-Marzán.

ACS Nano. **2019**, 13, 4424.

Nanoparticles to knockdown osteoporosis-related gene and promote osteogenic markers expression for osteoporosis treatment.

P. Mora-Raimundo, D. Lozano, M. Manzano, M. Vallet-Regí.

ACS Nano. **2019**, 13, 5451-5464.

Synthesis of BODIPY dyes through postfunctionalization of the boron dipyrromethene core.

N. Boens, B. Verbelen, M.J. Ortiz, J. Lijuan, W. Dehaen.

Coordination Chemistry Reviews. **2019**, 399, 213024.

Structure and electrochromism of two-dimensional octahedral molecular sieve h'-WO₃.

J. Besnardiere, B. Ma, A. Torres-Pardo, G. Wallez, H. Kabbour, J.M. González-Calbet, H.J. Von Bardeleben, B. Fleury, V. Buissette, C. Sanchez, T. Le Mercier, S. Cassaignon, D. Portehault.

Nature Communications. **2019**, 10, 327.

Essentiality of fatty acid synthase in the 2D to anchorage-independent growth transition in transforming cells.

M.J. Bueno, V. Jimenez-Renard, S. Samino, J. Capellades, A. Junza, M.L. López-Rodríguez, J.

García-Carceles, I. Lopez-Fabuel, J.P. Bolaños, N.S. Chandel, O. Yanes, R. Colomer, M. Quintela-Fandino.

Nature Communications. **2019**, 10, 5011-5029.

Kinetic traps to activate stereomutation in supramolecular polymers.

J.S. Valera, R. Gómez, L. Sánchez.

Angewandte Chemie International Edition. **2019**, 58, 510-514.

A Three-Dimensional Dynamic Supramolecular “Sticky Fingers” Organic Framework.

E. Fernández-Bartolome, J. Santos, A. Gamonal, S. Khodabakhshi, L.J. McCormick, S.J. Teat, E.C. Sañudo, J. Sánchez Costa, N. Martín.

Angewandte Chemie International Edition. **2019**, 58, 2310-2315

Molecular scaffolds as double targeting agents for the diagnosis and treatment of neuroblastoma.

G. Villaverde, A. Alfranca, Á. Gonzalez-Murillo, G.J. Melen, R.R. Castillo, M. Ramírez, A. Baeza, M. Vallet-Regí.

Angewandte Chemie International Edition. **2019**, 58, 3067-3072.

Multi-light responsive quantum dot sensitized hybrid micromotors with dual-mode propulsión.

R. María-Hormigos, B. Jurado-Sánchez, A. Escarpa.

Angewandte Chemie International Edition. **2019**, 58, 3128-3132.

On-surface synthesis of ethynylene bridged anthracene polymers.

A. Sánchez-Grande, B. de la Torre, J. Santos, B. Cirera, K. Lauwaet, T. Chutora, S. Edalatmanesh, P. Mutombo, J. Rosen, R. Zbořil, R. Miranda, J. Björk, P. Jelínek, N. Martín, D. Écija.

Angewandte Chemie International Edition. **2019**, 58, 6559-6563

All-Fullerene Electron Donor–Acceptor Conjugates.

M. Izquierdo, B. Platzer, A. J. Stasyuk, O. A. Stasyuk, A. A. Voityuk, S. Cuesta, M. Solà, D. M. Guldi, N. Martín.

Angewandte Chemie International Edition. **2019**, 58, 6932-6937.

Anion– π Catalysis on Carbon Nanotubes.

A.B. Bornhof, M. Vázquez-Nakagawa, L. Rodríguez-Pérez, M. A. Herranz, N. Sakai, N. Martín, S. Matile, J. López-Andarias.

Angewandte Chemie International Edition. **2019**, 58, 16097-16100.

Revising complex supramolecular polymerization under kinetic and thermodynamic control.

J. Mattern, Y. Dorca, L. Sánchez, G. Fernández.

Angewandte Chemie International Edition. **2019**, 58, 16730-16740.

Visible light driven Janus microvehicles in biological media.

M. Pacheco, B. Jurado-Sánchez, A. Escarpa.

Angewandte Chemie International Edition. **2019**, 58, 18017-18024.

Few layer 2D pnictogens catalyze the alkylation of soft nucleophiles with esters.

V. Lloret, M.Á. Rivero-Crespo, J.A. Vidal-Moya, S. Wild, A. Doménech-Carbó, B. SJ Heller, S. Shin, H.P. Steinrück, F. Maier, F. Hauke, M. Varela, A. Hirsch, A. Leyva-Pérez, G. Abellán.

Nature communications. **2019**, 10, 509.

LSC-2019-Surfactant protein SP-D to the rescue of NETosis and NET-induced lung surfactant inactivation.

R.A. Rodríguez, J. Duerr, M.A. Khan, M. Echaide, N. Palaniyar, J. Pérez-Gil.

European Respiratory Journal. **2019**, 54, OA2118.

Characterization of the activity of the different oligomeric forms of pulmonary human surfactant protein SP-D

R. Arroyo Rodríguez, J. Duerr, M.A. Khan, M. Echaide, N. Palaniyar, J. Pérez-Gil.
European Respiratory Journal. **2019**, 54, PA2382.

Dibenzoquinethiophene- and Dibenzosexithiophene-Based Hole-Transporting Materials for Perovskite Solar Cells.

J. Urieta-Mora, I. Zimmermann, J. Aragón, A. Molina-Ontoria, E. Ortí, N. Martín, M.K. Nazeeruddin.
Chemistry of Materials. **2019**, 31, 6435-6442.

Flipping Motion to Bias the Organized Supramolecular Polymerization of N-Heterotriangulenes.

Y. Dorca, J. Cerdá, J. Aragón, E. Ortí, L. Sánchez.
Chemistry of Materials. **2019**, 31, 7024-7032.

Blocking Ras inhibition as an antitumor strategy.

N.I. Marín-Ramos, S. Ortega-Gutiérrez, M.L. López-Rodríguez.
Seminars in Cancer Biology. **2019**, 54, 91-100.

Near Infrared-light responsive WS₂ microengines with high-performance electro and photocatalytic activities.

V. de la Asunción Nadal, B. Jurado-Sánchez, L. Vázquez, A. Escarpa.
Chemical Science. **2019**, 11, 132-140.

Ferroelectric control of interface spin filtering in multiferroic tunnel junctions.

J. Tornos, F. Gallego, S. Valencia, Y. Hua Liu, V. Rouco, V. Lauter, R. Abrudan, C. Luo, H. Ryll, Q. Wang, D. Hernández-Martín, G. Orfila, M. Cabero, F. Cuéllar, D. Arias, F.J. Mompean, M. García-Hernández, F. Radu, T.R. Charlton, A. Rivera-Calzada, Z. Sefrioui.
Physical review letters. **2019**, 122(3), 037601.

Electrically switchable and tunable Rashba-type spin splitting in covalent perovskite oxides.

J. Varignon, J. Santamaría, M. Bibes.
Physical review letters. **2019**, 122(11), 116401.

Interfacial-Redox-Induced Tuning of Superconductivity in YBa₂Cu₃O_{7-δ}.

P. Murray, D.A. Gilbert, A. Grutter, B. Kirby, D. Hernández-Maldonado, M. Varela, Z.E. Brubaker, WLNC. Liyanage, R.V. Chopdekar, V. Taufour, R. Zieve, J.R. Jeffries, E. Arenholz, Y. Takamura, J.A. Borchers, K. Liu.
ACS Applied Materials & Interfaces. **2019**, doi.org/10.1021/acsami.9b18820.

Temperature Accelerated Life Test and Failure Analysis on Upright Metamorphic Ga_{0.37}In_{0.63}P/Ga_{0.83}In_{0.17}As/Ge Triple Junction Solar Cells.

V. Orlando, I. Lombardero, M. Gabás, N. Nuñez, M. Vázquez, P. Espinet-González, J. Bautista, R. Romero, C. Algora.
Progress in Photovoltaics. **2019**, DOI 10.1002/pip.3223.

Bimetal zeolitic imidazolate framework (ZIF-9) derived nitrogen-doped porous carbon as efficient oxygen electrocatalysts for rechargeable Zn-air batteries.

A. Pendashteh, S. M.F. Vilela, I. Krivtsov, D. Ávila-Brandé, J. Palma, P. Horcajada, R. Marcilla.
Journal of Power Sources. **2019**, 427, 299-308.

Mechanical and liquid phase exfoliation of cylindrite: a natural van der Waals superlattice with intrinsic magnetic interactions.

Y. Niu, J. Villalva, R. Frisenda, G. Sanchez-Santolino, L. Ruiz-González, E. M. Pérez, M. García-Hernández, E. Burzurí, A. Castellanos-Gómez.

2D Materials. **2019**, 6, 035023.

Monodisperse gold nanorods for high-pressure refractive index sensing.

C. Martín-Sánchez, G. González-Rubio, P. Mulvaney, A. Guerrero-Martínez, L.M. Liz-Marzán, F. Rodríguez.

Journal of Physical Chemistry Letters. **2019**, 10, 1587.

Cancer cell targeting and therapeutic delivery of silver nanoparticles by mesoporous silica nanocarriers: insights into the action mechanisms by quantitative proteomics.

S. Montalvo-Quirós, G. Aragonese-Cazorla, L. García-Alcalde, M. Vallet-Regí, B. González, J.L. Luque-García.

Nanoscale. **2019**, 11, 4531-4545.

Synthesis and characterization of Ag₂S and Ag₂S/Ag₂(S, Se) NIR nanocrystals.

D. Ruiz, M. Mizrahi, H. DA Santos, D. Jaque, C. MS Jones, J. Marqués-Hueso, C. Jacinto, F. G Requejo, A. Torres-Pardo, J.M. González-Calbet, B. H Juárez.

Nanoscale. **2019**, 11(18), 9194-9200.

Control of upconversion luminescence by gold nanoparticle size: from quenching to enhancement.

D. Méndez-González, S. Melle, O.G. Calderón, M. Laurenti, E. Cabrera-Granado, A. Egatz-Gómez, E. López-Cabarcos, J. Rubio-Retama, E. Díaz.

Nanoscale. **2019**, 11, 13832-13844.

Toward the Green Production of H₂: Binary Pt–Ru Promoted NbTiO₂ Based Photocatalysts.

U. Caudillo-Flores, I. Barba-Nieto, M.N. Gómez-Cerezo, A. Martínez-Arias, M. Fernández-García, A. Kubacka.

ACS Sustainable Chemistry & Engineering. **2019**, 7, 15671-15683.

Substantial thermal conductivity reduction in mischmetal skutterudites M_mCo₄Sb₁₂ prepared under high-pressure conditions, due to uneven distribution of the rare-earth elements

J. Gainza, F. Serrano-Sánchez, J. Prado-Gonjal, N.M. Nemes, N. Biskup, O.J. Dura, J. L. Martínez, F. Fauth, J.A. Alonso.

Journal of Materials Chemistry C. **2019**, 7, 4124.

Minimizing geminate recombination losses in small-molecule-based organic solar cells.

R. Sandoval-Torrientes, A. Gavrik, A. Isakova, A. Abudulimu, J. Calbo, J. Aragón, J. Santos, E. Ortí, N. Martin, V. Dyakonov, L. Lüer.

Journal of Materials Chemistry C. **2019**, 7, 6641-6648.

Assembly effect on the charge carrier mobility in quaterthiophene-based n/p-materials.

A. López-Andarias, C. Atienza, J. López-Andarias, W. Matsuda, T. Sakurai, S. Seki, N. Martín.

Journal of Materials Chemistry C. **2019**, 7, 6649-6655.

Saddle-like, π -conjugated, cyclooctatetrathiophene-based, hole-transporting material for perovskite solar cells.

J. Urieta-Mora, I. García-Benito, I. Zimmermann, J. Aragón, J. Calbo, G. Grancini, A. Molina-Ontoria, E. Ortí, N. Martín, M.K. Nazeeruddin.

Journal of Materials Chemistry C. **2019**, 7, 6656-6663.

Multivalent Fullerene/ π -Extended TTF Electroactive Molecules – Non-Covalent Interaction with Graphene and Charge Transfer Implications.

A. Muñoz, L. Rodríguez-Pérez, S. Casado, B. M. Illescas, N. Martín.

Journal of Materials Chemistry C. **2019**, 7, 8962-8968.

Synergistic effect of Si-hydroxyapatite coating and VEGF adsorption on Ti6Al4V-ELI scaffolds for bone regeneration in an osteoporotic bone environment.

I. Izquierdo-Barba, L. Santos-Ruiz, J. Becerra, M. J. Feito, D. Fernández-Villa, M.C. Serrano, I. Díaz-Güemes, B. Fernández-Tomé, S. Enciso, F.M. Sánchez-Margallo, D. Monopoli, H. Afonso, M.T. Portolés, D. Arcos, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 83, 456-466.

Mixed-charge pseudo-zwitterionic mesoporous silica nanoparticles with lowfouling and reduced cell uptake properties.

N. Encinas, M. Angulo, C. Astorga, M. Colilla, I. Izquierdo-Barba, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 84, 317-327.

Fabrication of a nanoparticle-containing 3d porous bone scaffold with proangiogenic and antibacterial properties.

J.L. Paris, N. Lafuente-Gómez, M. Victoria Cabañas, J. Román, J. Peña, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 86, 441-449.

Osteostatin potentiates the bioactivity of mesoporous glass scaffolds containing zn²⁺ ions in human mesenchymal stem cell cultures.

C. Heras, S. Sánchez-Salcedo, D. Lozano, J. Peña, P. Esbrit, M. Vallet-Regí, A.J. Salinas.

Acta Biomaterialia. **2019**, 89, 359-371.

Mesoporous bioactive glass/ β -polycaprolactone scaffolds promote bone regeneration in osteoporotic sheep.

N. Gómez-Cerezo, L. Casarrubios, M. Saiz-Pardo, L. Ortega, D. de Pablo, I. Díaz-Güemes, B. Fernández-Tomé, S. Enciso, F.M. Sánchez-Margallo, M.T. Portolés, D. Arcos, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 90, 393-402.

Concanavalin a-targeted mesoporous silica nanoparticles for infection treatment.

M. Martínez-Carmona, I. Izquierdo-Barba, M. Colilla, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 96, 547-556.

Nanoparticles for multimodal antivasular therapeutics: dual drug release, photothermal and photodynamic therapy.

J.L. Paris, G. Villaverde, S. Gómez-Graña, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 101, 459-468.

Silicon substituted hydroxyapatite/vegf scaffolds stimulate bone regeneration in osteoporotic sheep.

L. Casarrubios, N. Gómez-Cerezo, S. Sánchez-Salcedo, M.J. Feito, M.C. Serrano, M. Saiz-Pardo, L. Ortega, D. de Pablo, I. Díaz-Güemes, B. Fernández-Tomé, S. Enciso, F.M. Sánchez-Margallo, M.T. Portolés, D. Arcos, M. Vallet-Regí.

Acta Biomaterialia. **2019**, 101, 544-553.

FormylBODIPYs by PCC-Promoted Selective Oxidation of α -MethylBODIPYs. Synthetic Versatility and Applications.

A. Ramos-Torres, E. Avellanal-Zaballa, A. Prieto-Castañeda, F. García-Garrido, J. Bañuelos, A.R. Agarrabeitia, M.J. Ortiz.
Organic Letters. **2019**, 21, 4563.

Luminescent sensor for O₂ detection in biomethane streams.

I. Urriza-Arsuaga, M. Bedoya, G. Orellana.
Sensors and Actuators B-Chemical. **2019**, 279, 458-465.

Graphene quantum dots-functionalized multi-walled carbon nanotubes as nanocarriers in electrochemical immunosensing. Determination of IL-13 receptor α 2 in colorectal cells and tumor tissues with different metastatic potential.

V. Serafín, A. Valverde, G. Martínez-García, E. Martínez-Periñán, F. Comba, M. Garranzo-Asensio, R. Barderas, P. Yáñez-Sedeño, S. Campuzano, J.M. Pingarrón.
Sensors & Actuators: B. Chemical. **2019**, 284, 711–722.

Tailored luminescent sensing of NH₃ in biomethane productions.

I. Urriza-Arsuaga, M. Bedoya, G. Orellana.
Sensors and Actuators B-Chemical. **2019**, 292, 210-216.

Hairy cationic nanocrystalline cellulose as a novel flocculant of clay.

C. Campano, P. López-Exposito, A. Blanco, C. Negro, T.G. van de Ven.
Journal of Colloid and Interface Science. **2019**, 545, 153-161.

Strontium-releasing mesoporous bioactive glasses with anti-adhesive zwitterionic surface as advanced biomaterials for bone tissue regeneration.

C. Pontremoli, I. Izquierdo-Barba, G. Montalbano, M. Vallet-Regí, C. Vitale-Brovarone, S. Fiorilli.
Journal of Colloid and Interface Science. **2019**, 563, 92-103.

Unprecedented Reversible Real-Time Luminescent Sensing of H₂S in the Gas Phase.

I. Urriza-Arsuaga, M. Bedoya, G. Orellana.
Analytical Chemistry. **2019**, 91, 2231-2238.

Unraveling Ferroelectric Polarization and Ionic Contributions to Electroresistance in Epitaxial Hf_{0.5}Zr_{0.5}O₂ Tunnel Junctions.

M. Cervo Sulzbach, S. Estandía, X. Long, J. Lyu, N. Dix, J. Gàzquez, M.F. Chisholm, F. Sánchez, I. Fina, J. Fontcuberta.
Advanced Electronic Materials. **2019**, 6(1), 1900852.

Modulating ICT Emission: A New Strategy to Manipulate the CPL Sign in Chiral Emitters.

J. Jiménez, F. Moreno, B.L. Maroto, T.A. Cabreros, A.S. Huy, G. Muller, J. Bañuelos, S. de la Moya.
Chemical Communications. **2019**, 55, 1631.

Pushing the limits of electrochemistry toward challenging applications in clinical diagnosis, prognosis, and therapeutic action.

P. Yáñez-Sedeño, S. Campuzano, J.M. Pingarrón.
Chemical communications. **2019**, 55(18), 2563-2592.

Ultrasound responsive mesoporous silica nanoparticles for biomedical applications.

M. Manzano, M. Vallet Regí.

Chemical Communications. **2019**, 55, 2731-2740.

Charge Transfer in Graphene Quantum Dots Coupled with Tetrathiafulvalenes.

T. Scharl, A. Ferrer-Ruiz, A. Saura-Sanmartín, L. Rodríguez-Pérez, M. A. Herranz, N. Martín, D. M. Guldi.

Chemical Communications. **2019**, 55, 3223-3226.

Planarization of tetracarboxamides. Tuning the self-assembly of polycyclic aromatic hydrocarbons.

Y. Dorca, C. Naranjo, P. Delgado-Martínez, R. Gómez, L. Sánchez

Chemical Communications. **2019**, 55, 6070-6073

Graphene quantum dots based micromotors: a size matter.

R. Maria-Hormigos, B. Jurado-Sánchez, A. Escarpa.

Chemical Communications. **2019**, 55, 6795-6798.

A potent isoprenylcysteine carboxymethyltransferase (ICMT) inhibitor improves survival in Ras-driven acute myeloid leukemia.

N.I. Marin-Ramos, M. Balabasquer, F.J. Ortega-Nogales, I.R. Torrecillas, A. Gil-Ordoñez, B.

Marcos-Ramiro, P. Aguilar-Garrido, I. Cushman, A. Romero, F. J. Medrano, C. Gajate, F.

Mollinedo, M.R. Philips, M. Campillo, M. Gallardo, M. Martín-Fontecha, M.L. López-Rodríguez,

S. Ortega-Gutierrez.

Journal of Medicinal Chemistry. **2019**, 62, 6035-6046.

Characterizing highly fibrillated nanocellulose by modifying the gel point methodology.

J.L. Sánchez-Salvador, M.C. Monte, W. Batchelor, G. Garnier, C. Negro, A. Blanco.

Carbohydrate Polymers. **2019**, 227, 115340.

Exchange bias and two steps magnetization reversal in porous Co/CoO layer.

J.G. Ovejero, V. Godinho, B. Lacroix, M.A. García, A. Hernando, A. Fernández

Materials and Design. **2019**, 171, 107691.

MtMOT1.2 is responsible for molybdate supply to *Medicago truncatula* nodules.

P. Gil-Díez, M. Tejada-Jiménez, J. León-Mediavilla, J. Wen, K.S. Mysore, J. Imperial, M.

González-Guerrero.

Plant, Cell & Environment. **2019**, 42, 310-320.

Effect of sepiolite addition on fibre-cement based on MgO-SiO₂ systems.

G. Mármol, Jr. H. Savastanor, E. de la Fuente, R. Miranda, A. Blanco, C. Negro.

Cement and Concrete Research. **2019**, 124, 105816.

Heavy metals immobilization capability of two iron-based nanoparticles (nZVI and Fe₃O₄): Soil and freshwater bioassays to assess ecotoxicological impact.

C. Fajardo, G. Costa, M. Nande, C. Martín, M. Martín, S. Sánchez-Fortún.

Science of the Total Environment. **2019**, 656, 421-432.

Simultaneous amperometric immunosensing of the metastasis-related biomarkers IL-13R α 2 and CDH-17 by using grafted screen-printed electrodes and a composite prepared from...

V. Serafín, A. Valverde, M. Garranzo-Asensio, R. Barderas, S. Campuzano, P. Yáñez-Sedeño,

J.M. Pingarrón.

Microchimica Acta. **2019**, 186(7), 411.

Overcoming the stability, toxicity, and biodegradation challenges of tumor stimuli-responsive inorganic nanoparticles for delivery of cancer therapeutics.

J.L. Paris, A. Baeza, M. Vallet-Regí.

Expert Opinion on Drug Delivery. **2019**, 16, 1095-1112.

Advances in mesoporous silica nanoparticles for targeted stimuli-responsive drug delivery: an update.

R. Castillo, D. Lozano, B. González, M. Manzano, I. Izquierdo-Barba, M. Vallet-Regí.

Expert Opinion on Drug Delivery. **2019**, 22, 1-25.

Microspore embryogenesis: targeting the determinant factors of stress-induced cell reprogramming for crop improvement.

P.S. Testillano.

Journal of Experimental Botany. **2019**, 70(11), 2965-2978.

Determination of progesterone in saliva using an electrochemical immunosensor and a COTS-based portable potentiostat.

V. Serafín, G. Martínez-García, J. Aznar-Poveda, J.A. López-Pastor, A.J. García-Sánchez, J.

García-Haro, S. Campuzano, P. Yáñez-Sedeño, J.M. Pingarrón.

Analytica Chimica Acta. **2019**, 1049, 65-73.

The loss of β -adrenergic receptor mediated release potentiation in a mouse model of fragile X syndrome.

N. García-Font, R. Martín, M. Torres, M.J. Oset, J. Sánchez-Prieto.

Neurobiology of Disease. **2019**, 130,104482.

Site-selective Synthesis of β -[70]PCBM-like Fullerenes: Efficient Application in Perovskite Solar Cells.

S. Vidal, M. Izquierdo, S. Filippone, I. Fernández, S. Akin, J-Y. Seo, S. M. Zakeeruddin, M. Graetzel, N. Martín.

Chemistry: A European Journal. **2019**, 25, 3224-3228.

Hierarchy of asymmetry in chiral supramolecular polymers. Toward functional, helical supramolecular structures.

Y. Dorca, E.E. Greciano, J.S. Valera, R. Gómez, L. Sánchez

Chemistry - A European Journal. **2019**, 25, 5848-5864.

Synergistic Effect of Covalent Bonding and Physical Encapsulation of Sulfur in the Pores of a Microporous COF to Improve Cycling Performance in Li-S Batteries.

S. Royuela, J. Almarza, M.J. Mancheño, J.C. Pérez-Flores, E.G. Michel, M.M. Ramos, F. Zamora, P. Ocón, J.L. Segura

Chemistry: A European Journal. **2019**, 25, 12394.

Magnetic fields enhanced the performance of tubular dichalcogenide micromotors at low hydrogen peroxide levels.

V. de la Asunción Nadal, B. Jurado-Sánchez, L. Vázquez, A. Escarpa.

Chemistry: A European Journal. **2019**, 25, 13157-13163.

Consecutive Supramolecular Polymerization of a Rylene-Based Twistacene.

M.A. Martínez, E.E. Greciano, L. Sánchez.

Chemistry - A European Journal. **2019**, 25, 16012-16016.

Prokaryotic and viral community of the sulfate-rich crust from Peñahueca ephemeral lake, an astrobiology analogue.

A.B. Martín-Cuadrado, E. Senel, M. Martínez-García, A. Cifuentes, M. Santos, C. Almansa, M. Moreno-Paz, Y. Blanco, M. García-Villadangos, M.A. García del Cura, M.E. Sanz-Montero, J.P. Rodríguez-Aranda, R. Rosselló-Mora, J. Antón, V. Parro.
Environmental Microbiology. **2019**, 21(10), 3577-3600.

High Volume-per-Dose and Low Resistivity of Cobalt Nanowires Grown by Ga⁺ Focused Ion Beam Induced Deposition.

Sanz-Martín, C.; Magén, C.; De Teresa, J. M.
Nanomaterials **2019**, 9 (12), 12.

Room-Temperature AFM Electric-Field-Induced Topotactic Transformation between Perovskite and Brownmillerite SrFeOx with Sub-Micrometer Spatial Resolution.

Ferreiro-Vila, E.; Blanco-Canosa, S.; Lucas del Pozo, I.; Vasili, H. B.; Magén, C.; Ibarra, A.; Rubio-Zuazo, J.; Castro, G. R.; Morellón, L.; Rivadulla, F.
Adv. Funct. Mater. **2019**, 29 (48), 8.

Long-Range Vortex Transfer in Superconducting Nanowires.

Córdoba, R.; Orús, P.; Jelić, Ž. L.; Sesé, J.; Ibarra, M. R.; Guillamón, I.; Vieira, S.; Palacios, J. J.; Suderow, H.; Milosević, M. V.; De Teresa, J. M.
Sci. Rep. **2019**, 9 (1), 10.

Investigating the Possible Origin of Raman Bands in Defective Sp²/Sp³ Carbons below 900 Cm⁻¹: Phonon Density of States or Double Resonance Mechanism at Play? C —

Pardanaud, C.; Cartry, G.; Lajaunie, L.; Arenal, R.; Buijnsters, J. G.
J. Carbon Res. **2019**, 5 (4), 79.

Apparent Auxetic to Non-Auxetic Crossover Driven by Co²⁺ Redistribution in CoFe₂O₄ Thin Films.

Ferreiro-Vila, E.; Iglesias, L.; Lucas Del Pozo, I.; Varela-Dominguez, N.; Bui, C. T.; Rivas-Murias, B.; Vila-Fungueiriño, J. M.; Jimenez-Cavero, P.; Magen, C.; Morellon, L.; Pardo, V.; Rivadulla, F.
APL Mater. **2019**, 7 (3), 6.

Effects of Zn Substitution in the Magnetic and Morphological Properties of Fe-Oxide-Based Core-Shell Nanoparticles Produced in a Single Chemical Synthesis.

Lohr, J.; De Almeida, A. A.; Moreno, M. S.; Troiani, H.; Goya, G. F.; Torres Molina, T. E.; Fernandez-Pacheco, R.; Winkler, E. L.; Vasquez Mansilla, M.; Cohen, R.; Nagamine, L. C. C. M.; Rodríguez, L. M.; Fregenal, D. E.; Zysler, R. D.; Lima, E.
J. Phys. Chem. C **2019**, 123 (2), 1444–1453.

Nanoscale Magnetic and Charge Anisotropies at Manganite Interfaces.

Carreira, S. J.; Aguirre, M. H.; Briatico, J.; Steren, L. B.
RSC Adv. **2019**, 9 (66), 38604–38611.

Double-Walled Iron Oxide Nanotubes via Selective Chemical Etching and Kirkendall Process.

Azevedo, J.; Fernández-García, M. P.; Magén, C.; Mendes, A.; Araújo, J. P.; Sousa, C. T.
Sci. Rep. **2019**, 9 (1), 8.

In Situ Real-Time Annealing of Ultrathin Vertical Fe Nanowires Grown by Focused Electron Beam Induced Deposition.

Pablo-Navarro, J.; Winkler, R.; Haberkühner, G.; Magén, C.; Plank, H.; De Teresa, J. M.
Acta Mater. **2019**, 174, 379–386.

Determination of the Evolution of Heterogeneous Single Metal Atoms and Nanoclusters under Reaction Conditions: Which Are the Working Catalytic Sites?

Liu, L.; Meira, D. M.; Arenal, R.; Concepcion, P.; Puga, A. V.; Corma, A.
ACS Catal. **2019**, *9* (12), 10626–10639.

Ultrathin Lead Bromide Perovskite Platelets Spotted with Europium(II) Bromide Dots.

Rosa-Pardo, I.; Pocoví-Martínez, S.; Arenal, R.; Galian, R. E.; Pérez-Prieto, J.
Nanoscale **2019**, *11* (39), 18065–18070.

Chemical Ordering in Bimetallic FeCo Nanoparticles: From a Direct Chemical Synthesis to Application As Efficient High-Frequency Magnetic Material.

Garnero, C.; Lepesant, M.; Garcia-Marcelot, C.; Shin, Y.; Meny, C.; Farger, P.; Warot-Fonrose, B.; Arenal, R.; Viau, G.; Soulantica, K.; Fau, P.; Poveda, P.; Lacroix, L. M.; Chaudret, B.
Nano Lett. **2019**, *19* (2), 1379–1386.

Selective Control of Molecule Charge State on Graphene Using Tip-Induced Electric Field and Nitrogen Doping.

Pham, V. D.; Ghosh, S.; Joucken, F.; Pelaez-Fernandez, M.; Repain, V.; Chacon, C.; Bellec, A.; Girard, Y.; Sporcken, R.; Rousset, S.; Dappe, Y. J.; Narasimhan, S.; Lagoute, J.
npj 2D Mater. Appl. **2019**, *3* (1), 5.

Real Space Manifestations of Coherent Screening in Atomic Scale Kondo Lattices.

Moro-Lagares, M.; Korytár, R.; Piantek, M.; Robles, R.; Lorente, N.; Pascual, J. I.; Ibarra, M. R.; Serrate, D.
Nat. Commun. **2019**, *10* (1).

Interface-Induced Anomalous Nernst Effect in Fe₃O₄/Pt-Based Heterostructures.

Ramos, R.; Kikkawa, T.; Anadón, A.; Lucas, I.; Niizeki, T.; Uchida, K.; Algarabel, P. A.; Morellón, L.; Aguirre, M. H.; Ibarra, M. R.; Saitoh, E.
Appl. Phys. Lett. **2019**, *114* (11), 5.

Greener Processes in the Preparation of Thin Film Nanocomposite Membranes with Diverse Metal-Organic Frameworks for Organic Solvent Nanofiltration.

Paseta, L.; Navarro, M.; Coronas, J.; Téllez, C.
J. Ind. Eng. Chem. **2019**, *77*, 344–354.

Self-Mineralization and Assembly of a Bis-Silylated Phe-Phe Pseudodipeptide to a Structured Bioorganic-Inorganic Material.

Jebors, S.; Valot, L.; Echalié, C.; Legrand, B.; Mikhaleff, R.; Van Der Lee, A.; Arenal, R.; Dumy, P.; Amblard, M.; Martínez, J.; Mehdi, A.; Subra, G.
Mater. Horizons **2019**, *6* (10), 2040–2046.

Insights into Formation of Anatase TiO₂ Nanoparticles from Peroxo Titanium Complex Degradation under Microwave-Assisted Hydrothermal Treatment.

de Mendonça, V. R.; Lopes, O. F.; Avansi, W.; Arenal, R.; Ribeiro, C.
Ceram. Int. **2019**, *45* (17), 22998–23006.

Green Synthesis of Cavity-Containing Manganese Oxides with Superior Catalytic Performance in Toluene Oxidation.

García, T.; López, J. M.; Mayoral, Á.; Zhang, Y.; Arenal, R.; Alonso-Domínguez, D.; Pico, M. P.; López, M. L.; Dejoz, A.; Álvarez-Serrano, I.; Sanchis, R.; Solsona, B.
Appl. Catal. A Gen. **2019**, *582*, 10.

One-Dimensional V₂O₅/TiO₂ Heterostructures for Chemiresistive Ozone Sensors.

Avansi, W.; Catto, A. C.; Da Silva, L. F.; Fiorido, T.; Bernardini, S.; Mastelaro, V. R.; Aguir, K.; Arenal, R.

ACS Appl. Nano Mater. **2019**, *2* (8), 4756–4764.

Antimicrobial Electrospun Polycaprolactone-Based Wound Dressings: An in Vitro Study about the Importance of the Direct Contact to Elicit Bactericidal Activity.

Gómez, E.; Mendoza, G.; Salido, S.; Arruebo, M.; Irusta, S.
Adv. Wound Care **2019**, *8* (9), 438–451.

One-Pot Seed-Mediated Growth of Co Nanoparticles by the Polyol Process: Unraveling the Heterogeneous Nucleation.

Ramamoorthy, R. K.; Viola, A.; Grindi, B.; Peron, J.; Gatel, C.; Hytch, M.; Arenal, R.; Sicard, L.; Giraud, M.; Piquemal, J. Y.; Viau, G.
Nano Lett. **2019**, *19* (12), 9160–9169.

Engineering the Magnetic Order in Epitaxially Strained Sr1-*x*BaxMnO3 Perovskite Thin Films.

Maurel, L.; Marcano, N.; Langenberg, E.; Guzmán, R.; Prokscha, T.; Magén, C.; Pardo, J. A.; Algarabel, P. A.
APL Mater. **2019**, *7* (4), 7.

Diameter Distribution by Deconvolution (DdD): Absorption Spectra as a Practical Tool for Semiconductor Nanoparticle PSD Determination.

Onna, D.; Perez Ipiña, I.; Fernández Casafuz, A.; Mayoral, Á.; Ibarra García, M. R.; Bilmes, S. A.; Martínez Ricci, M. L.
Nanoscale Adv. **2019**, *1* (9), 3499–3505.

Synthesis and Characterization of Polymer/Silica/QDs Fluorescent Nanocomposites with Potential Application as Printing Toner.

Ruiz-Robles, M. A.; Solis-Pomar, F.; Gutiérrez-Lazos, C. D.; Fundora-Cruz, A.; Mayoral, A.; Pérez-Tijerina, E.
Mater. Res. Express **2019**, *6* (2), 6. <https://doi.org/10.1088/2053-1591/aaf0f2>.

Exploring Tantalum as a Potential Dopant to Promote the Thermoelectric Performance of Zinc Oxide.

Arias-Serrano, B. I.; Xie, W.; Aguirre, M. H.; Tobaldi, D. M.; Sarabando, A. R.; Rasekh, S.; Mikhalev, S. M.; Frade, J. R.; Weidenkaff, A.; Kovalevsky, A. V.
Materials (Basel). **2019**, *12* (13), 11.

Sulfur-Doped Graphene/Transition Metal Dichalcogenide Heterostructured Hybrids with Electrocatalytic Activity toward the Hydrogen Evolution Reaction.

Kagkoura, A.; Pelaez-Fernandez, M.; Arenal, R.; Tagmatarchis, N.
Nanoscale Adv. **2019**, *1* (4), 1489–1496.

Effective Determination of Surface Potential Landscapes from Metal-Organic Nanoporous Network Overlayers.

Piquero-Zulaica, I.; Abd El-Fattah, Z. M.; Popova, O.; Kawai, S.; Nowakowska, S.; Matena, M.; Enache, M.; Stöhr, M.; Tejada, A.; Taleb, A.; Meyer, E.; Ortega, J. E.; Gade, L. H.; Jung, T. A.; Lobo-Checa, J.
New J. Phys. **2019**, *21* (5), 9.

Temperature-Responsive Nanomagnetic Logic Gates for Cellular Hyperthermia.

Oliveira-Silva, R.; Pereira, R. A.; Silva, F. M.; Gaspar, V. M.; Ibarra, A.; Millán, Á.; Sousa, F. L.; Mano, J. F.; Silva, N. J. O.
Mater. Horizons **2019**, *6* (3), 524–530.

Pulsed Current-Voltage Electrodeposition of Stoichiometric Bi2Te3 Nanowires and Their Crystallographic Characterization by Transmission Electron Backscatter Diffraction. *Sci. Technol.*

Manzano, C. V.; Polyakov, M. N.; Maiz, J.; Aguirre, M. H.; Maeder, X.; Martín-González, M. *Adv. Mater.* **2019**, *20* (1), 1022–1030.

One-Pot Preparation of Iron/Alumina Catalyst for the Efficient Growth of Vertically-Aligned Carbon Nanotube Forests.

Roussey, A.; Venier, N.; Fneich, H.; Giardella, L.; Pinaud, T.; Tahir, S.; Pelaez-Fernandez, M.; Arenal, R.; Mehdi, A.; Jourdain, V.

Mater. Sci. Eng. B Solid-State Mater. Adv. Technol. **2019**, *245*, 37–46.

Au-MoS₂ Hybrids as Hydrogen Evolution Electrocatalysts.

Bar-Ziv, R.; Ranjan, P.; Lavie, A.; Jain, A.; Garai, S.; Bar Hen, A.; Popovitz-Biro, R.; Tenne, R.; Arenal, R.; Ramasubramaniam, A.; Lajaunie, L.; Bar-Sadan, M.

ACS Appl. Energy Mater. **2019**, *2* (8), 6043–6050.

The Fabrication of Ultrathin Films and Their Gas Separation Performance from Polymers of Intrinsic Microporosity with Two-Dimensional (2D) and Three-Dimensional (3D) Chain Conformations.

Benito, J.; Vidal, J.; Sánchez-Laínez, J.; Zornoza, B.; Téllez, C.; Martín, S.; Msayib, K. J.; Comesaña-Gándara, B.; McKeown, N. B.; Coronas, J.; Gascón, I.

J. Colloid Interface Sci. **2019**, *536*, 474–482.

Three-Dimensional Superconducting Nanohelices Grown by He⁺-Focused-Ion-Beam Direct Writing.

Córdoba, R.; Mailly, D.; Rezaev, R. O.; Smirnova, E. I.; Schmidt, O. G.; Fomin, V. M.; Zeitler, U.; Guillamón, I.; Suderow, H.; De Teresa, J. M.

Nano Lett. **2019**, *19* (12), 8597–8604.

Controlling the Dominant Magnetic Relaxation Mechanisms for Magnetic Hyperthermia in Bimagnetic Core-Shell Nanoparticles.

Fabris, F.; Lima, E.; De Biasi, E.; Troiani, H. E.; Vásquez Mansilla, M.; Torres, T. E.; Fernández Pacheco, R.; Ibarra, M. R.; Goya, G. F.; Zysler, R. D.; Winkler, E. L.

Nanoscale **2019**, *11* (7), 3164–3172.

Chemical Postdeposition Treatments to Improve the Adhesion of Carbon Nanotube Films on Plastic Substrates.

Santidrián, A.; Sanahuja, O.; Villacampa, B.; Diez, J. L.; Benito, A. M.; Maser, W. K.; Muñoz, E.; Ansón-Casaos, A.

ACS Omega **2019**, *4* (2), 2804–2811.

Electrospun Asymmetric Membranes for Wound Dressing Applications.

Aragón, J.; Costa, C.; Coelho, I.; Mendoza, G.; Aguiar-Ricardo, A.; Irusta, S.

Mater. Sci. Eng. C **2019**, *103*, 12.

Ultra-Fast Direct Growth of Metallic Micro- and Nano-Structures by Focused Ion Beam Irradiation.

Córdoba, R.; Orús, P.; Strohauser, S.; Torres, T. E.; De Teresa, J. M.

Sci. Rep. **2019**, *9* (1), 10.

Gold-Decorated Magnetic Nanoparticles Design for Hyperthermia Applications and as a Potential Platform for Their Surface-Functionalization.

León Félix, L.; Sanz, B.; Sebastián, V.; Torres, T. E.; Sousa, M. H.; Coaquira, J. A. H.; Ibarra, M. R.; Goya, G. F.

Sci. Rep. **2019**, *9* (1), 11.

Impact of the Absolute Rutile Fraction on TiO₂ Visible-Light Absorption and Visible-Light-Promoted Photocatalytic Activity.

Tobaldi, D. M.; Lajaunie, L.; Rozman, N.; Caetano, A. P. F.; Seabra, M. P.; Sever Škapin, A.; Arenal, R.; Labrincha, J. A.

J. Photochem. Photobiol. A Chem. **2019**, *382*, 15.

The Relevance of Brownian Relaxation as Power Absorption Mechanism in Magnetic Hyperthermia.

Torres, T. E.; Lima, E.; Calatayud, M. P.; Sanz, B.; Ibarra, A.; Fernández-Pacheco, R.; Mayoral, A.; Marquina, C.; Ibarra, M. R.; Goya, G. F.

Sci. Rep. **2019**, *9* (1), 11.

Sonochemical Edge Functionalisation of Molybdenum Disulfide.

Amorim Graf, A.; Large, M. J.; Ogilvie, S. P.; Rong, Y.; Lynch, P. J.; Fratta, G.; Ray, S.; Shmeliov, A.; Nicolosi, V.; Arenal, R.; King, A. A. K.; Dalton, A. B.

Nanoscale **2019**, *11* (33), 15550–15560.

The Growth and Improved Magnetoelectric Response of Strain-Modified Aurivillius SrBi_{4.25}La_{0.75}Ti₄FeO₁₈ Thin Films.

Venkata Ramana, E.; Prasad, N. V.; Figueiras, F.; Lajaunie, L.; Arenal, R.; Otero-Irurueta, G.; Valente, M. A.

Dalt. Trans. **2019**, *48* (35), 13224–13241.

A. Low-Temperature Catalytic NO Reduction with CO by Subnanometric Pt Clusters.

Fernández, E.; Liu, L.; Boronat, M.; Arenal, R.; Concepcion, P.; Corma,

ACS Catal. **2019**, *9* (12), 11530–11541.

Mixed 4f Population of Tm Adatoms on Insulating Cu₂N Islands.

Coffey, D.; De La Fuente, C.; Ciria, M.; Serrate, D.; Loth, S.; Arnaudus, J. I.

Phys. Chem. Chem. Phys. **2019**, *22* (1), 196–202.

Tuning the Size, Composition and Structure of Au and Co₅₀Au₅₀ Nanoparticles by High-Power Impulse Magnetron Sputtering in Gas-Phase Synthesis.

Mayoral, A.; Martínez, L.; García-Martín, J. M.; Fernández-Martínez, I.; García-Hernández, M.; Galiana, B.; Ballesteros, C.; Huttel, Y.

Nanotechnology **2019**, *30* (6), 10.

Composite Scaffold Obtained by Electro-Hydrodynamic Technique for Infection Prevention and Treatment in Bone Repair.

Aragón, J.; Feoli, S.; Irusta, S.; Mendoza, G.

Int. J. Pharm. **2019**, *557*, 162–169.

Interfacial Ferromagnetism and Atomic Structures in High-Temperature Grown

Fe₃O₄/Pt/Fe₃O₄ Epitaxial Trilayers.

Kikkawa, T.; Suzuki, M.; Ramos, R.; Aguirre, M. H.; Okabayashi, J.; Uchida, K.; Lucas, I.; Anadón, A.; Kikuchi, D.; Algarabel, P. A.; Morellón, L.; Ibarra, M. R.; Saitoh, E.

J. Appl. Phys. **2019**, *126* (14), 11. <https://doi.org/10.1063/1.5125761>.

New Routes to Organometallic Molecular Junctions: Via a Simple Thermal Processing Protocol.

Ezquerro, R.; Eaves, S. G.; Bock, S.; Skelton, B. W.; Pérez-Murano, F.; Cea, P.; Martín, S.; Low, P. J.

J. Mater. Chem. C **2019**, *7* (22), 6630–6640.

Single Molecule vs. Large Area Design of Molecular Electronic Devices Incorporating an Efficient 2-Aminopyridine Double Anchoring Group.

Herrer, L.; Ismael, A.; Martín, S.; Milan, D. C.; Serrano, J. L.; Nichols, R. J.; Lambert, C.; Cea, P.

Nanoscale **2019**, *11* (34), 15871–15880.

Generation of Gold Nanoclusters Encapsulated in an MCM-22 Zeolite for the Aerobic Oxidation of Cyclohexane.

Liu, L.; Arenal, R.; Meira, D. M.; Corma, A.
Chem. Commun. **2019**, 55 (11), 1607–1610.

Probing the Morphology of Epitaxial Fe/MgO Discontinuous Multilayers by Magnetometric Technique.

Vovk, A.; García-García, A.; Pogorelov, Y. G.; Pardo, J. A.; Štrichovanec, P.; Magén, C.; Algarabel, P. A.; Araujo, J. P.; Kakazei, G. N.
J. Magn. Magn. Mater. **2019**, 474, 369–373.

Electrically Transmissive Alkyne-Anchored Monolayers on Gold.

Herrer, L.; González-Orive, A.; Marqués-González, S.; Martín, S.; Nichols, R. J.; Serrano, J. L.; Low, P. J.; Cea, P.
Nanoscale **2019**, 11 (16), 7976–7985.

Diameter Modulation of 3D Nanostructures in Focused Electron Beam Induced Deposition Using Local Electric Fields and Beam Defocus.

Pablo-Navarro, J.; Sangiao, S.; Magén, C.; De Teresa, J. M.
Nanotechnology **2019**, 30 (50), 10.

Chirality Manifestation in Elastic Coupling between the Layers of Double-Walled Carbon Nanotubes.

Rochal, S.; Levshov, D.; Avramenko, M.; Arenal, R.; Cao, T. T.; Nguyen, V. C.; Sauvajol, J. L.; Paillet, M.
Nanoscale **2019**, 11 (34), 16092–16102.

The Non-Innocent Role of Graphene in the Formation/Immobilization of Ultra-Small Gold Nanoparticles Functionalized with N-Heterocyclic Carbene Ligands.

Ventura-Espinosa, D.; Martín, S.; Mata, J. A.
J. Catal. **2019**, 375, 419–426.

Mass Sensing for the Advanced Fabrication of Nanomechanical Resonators.

Gruber, G.; Urgell, C.; Tavernarakis, A.; Stavrinadis, A.; Tepsic, S.; Magén, C.; Sangiao, S.; De Teresa, J. M.; Verlot, P.; Bachtold, A.
Nano Lett. **2019**, 19 (10), 6987–6992.

Ibarra, M. R.; Khlebtsov, N. G. Magnetic and Plasmonic Nanoparticles for Biomedical Devices. *J. Appl. Phys.* **2019**, 126 (17), 3.

Diagenetic evolution of lower Jurassic platform carbonates flanking the Tazoult salt wall (Central High Atlas, Morocco).

Moragas, M., Baqués, V., Travé, A., Martín-Martín, J.D., Saura, E., Messenger, G., Hunt, D., Vergés, J.
Basin Research **2019**, 32, 546–566.

Basin tectonic history and paleo-physiography of the pelagian platform, northern Tunisia, using vitrinite reflectance data.

Cavailles, T., Rotevatn, A., Monstad, S., Khala, A.B., Funk, E., Canner, K., Looser, M., Chalabi, A., Gay, A., Travé, A., Ferhi, F., Skanji, A., Chebbi, R.M., Bang, N.
Basin Research **2019**, 30, 926-941

A shallow origin for diamonds in ophiolitic chromitites: REPLY

J. Farré-de-Pablo, J.A. Proenza, J.M. González-Jiménez, A. García-Casco, V. Colás, J. Roqué-Rosell, A. Camprubí, A. Sánchez-Navas
Geology. **2019**, 47(8), 477-478

Magmatic platinum nanoparticles in metasomatic silicate glasses and sulfides from Patagonian mantle xenoliths

J.M. González-Jiménez, J. Roqué-Rosell, A. Jiménez-Franco, S. Tassara, F. Nieto, F. Gervilla, S. Baurier, J.A. Proenza, E. Saunders, A.P. Deditius, M. Schilling, A. Corgne
Contributions to Mineralogy and Petrology. **2019**, 174(5)

Structural characterization and ab-initio resolution of natural occurring zaccariniite (RhNiAs) by means of Precession Electron Diffraction

J. Roqué-Rosell, J. Portillo-Serra, T. Aiglsperger, S. Plana-Ruiz, P. Pratim-Das, J. Mendoza-Gonzalvez, T. Trifonov, J.A. Proenza
Microchemical Journal. **2019**, 148, 130-140

Ni-bearing phyllosilicates ("garnierites"): New insights from thermal analysis, micro-Raman and IR spectroscopy

C. Villanova-de-Benavent, T. Jawhari, J. Roqué-Rosell, S. Galí, J.A. Proenza
Applied Clay Science. **2019**, 175, 47-66

A shallow origin for diamonds in ophiolitic chromitites

J. Farré-de-Pablo, J.A. Proenza, J.M. González-Jiménez, A. García-Casco, V. Colás, J. Roqué-Rosell, A. Camprubí, A. Sánchez-Navas
Geology. **2019**, 47(1), 75-78

Identification of polysaccharide capsules among extensively drug-resistant genitourinary *Haemophilus parainfluenzae* isolates

A.González-Díaz, F.Tubau, M. Pinto, Y. Sierra, M. Cubero, J. Càmara, J. Ayats, P. Bajanca-Lavado, C. Ardanuy, S. Marti
Scientific Reports 2019 9, 4481

Impaired endothelial autophagy promotes liver fibrosis by aggravating the oxidative stress response during acute liver injury

M. Ruart, L. Chavarria, G. Campreciós, N. Suárez-Herrera, C. Montironi, S. Guixé-Muntet, J. Bosch¹, S. L. Friedman, J. Carlos Garcia-Pagán, V. Hernández-Gea
J Hepatol. **2019**, 70(3): 458–469

Calcium changes in *Robinia pseudoacacia* pulvinar motor cells during nyctinastic closure mediated by phytochromes

L.Moysset, E. Llambrich, E. Simón
Protoplasma **2019**, 256:615–629

Cholesterol enrichment in liver mitochondria impairs oxidative phosphorylation and disrupts the assembly of respiratory supercomplexes

E. Solsona-Vilarrasa, R. Fucho, S. Torres, S. Nuñez, N. Nuño-Lámbarri, C. Enrich, C. García-Ruiz, J.C. Fernández-Checa
Redox Biology. **2019**, 24

Parkin controls brown adipose tissue plasticity in response to adaptive thermogenesis

M.Cairó, L. Campderrós, A. Gavalda-Navarro, R. Cereijo, A. Delgado-Anglés, T. Quesada-López, M. Giralt, J.Villarroya, F. Villarroya

EMBO reportse 46832|2019

Calyx junction dismantlement and synaptic uncoupling precede hair cell extrusion in the vestibular sensory epithelium during sub-chronic 3,3'-iminodipropionitrile ototoxicity in the mouse.

E.A. Greguske, M. Carreres-Pons, B. Cutillas, P. Boadas-Vaello, J. Llorens
Archives of Toxicology **2019** 93:417-434

Quantitative Assessment of Anti-Gravity Reflexes to Evaluate Vestibular Dysfunction in Rats
V. Martins-Lopes, A. Bellmunt, E. Greguske, A. Maroto, P. Boadas-Vaello, J. Llorens
J Assoc Res Otolaryngol. **2019**, DOI: 10.1007/s10162-019-00730-6

Aging Influences Hepatic Microvascular Biology and Liver Fibrosis in Advanced Chronic Liver Disease

R. Maeso-Díaz, M. Ortega-Ribera, E. Lafoz, J. J. Lozano, A. Baiges, R. Francés, A. Albillos, C. Peralta, J.C. García-Pagán, J. Bosch, V. C Cogger, J. Gracia-Sancho
Aging and disease, **2019**, 10 (4) : 684-698

Regioselective generation and reactivity control of subnanometric platinum clusters in zeolites for high-temperature catalysis.

Liu, L. C.; Lopez-Haro, M.; Lopes, C. W.; Li, C. G.; Concepcion, P.; Simonelli, L.; Calvino, J. J.; Corma, A.,
Nature Materials **2019**, 18 (8), 866-+.

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Liu, L. C.; Lopez-Haro, M.; Lopes, C. W.; Li, C. G.; Concepcion, P.; Simonelli, L.; Calvino, J. J.; Corma, A.,
Nature Materials **2019**, 18 (8), 866-873.

Optical and Tomography Studies Of Water-Soluble Gold Nanoparticles On Bacterial Exopolysaccharides.

González, V. Garcés, L. Sabio, F. Velandó, M. López-Haro, N. Gálvez, J.J. Calvino, J.M. Domínguez-Vera.
Journal Of Applied Physics **2019**, 126 (5) 53101[1]- 53101[12]

Synthesis of mesoporous ceria using metal- and halogen-free ordered mesoporous carbon as a hard template.

Sakina, F.; Muñoz-Ocana, J. M.; Bouziane, A.; Lopez-Haro, M.; Baker, R. T.,
Nanoscale Advances **2019**, 1 (12), 4772-4782.

Improving the Activity And Stability Of YSZ-Supported Gold Powder Catalyst By Means Of Ultrathin, Coherent, Ceria Overlayers. Atomic Scale Structural Insights

R. Manzorro, W.E. Celín, J.A. Pérez-Omil, J.J. Calvino, S. Trasobares
ACS Catalysis, **2019**, 9 (6), 5157-5170.

An Atomically Efficient, Highly Stable And Redox Active Ce_{0.5}Tb_{0.5}O: X (3% Mol.)/Mgo Catalyst For Total Oxidation Of Methane

J.J. Sánchez, M. López-Haro, J.C. Hernández-Garrido, G. Blanco, M.A. Cauqui, J.M. Rodríguez-Izquierdo, J.A. Pérez-Omil, J.J. Calvino, M.P. Yeste
Journal of Materials Chemistry A, **2019**, 7 (15), 8993-9003.

The Role Of Gold-Alumina Template In The Electrochemical Deposition Of CeO₂ Nanotubes
L. González-Souto, L. González-Rovira, F.J. Botana, J.J. Calvino, M.Á. Cauqui, J.C. Hernández-Garrido

Particle and Particle Systems Characterization, **2019**, 1900168[1]-1900168[11]

Synthesis of mesoporous ceria using metal- and halogen-free ordered mesoporous carbon as a hard template.

Sakina, F.; Munoz-Ocana, J. M.; Bouziane, A.; Lopez-Haro, M.; Baker, R. T.,
Nanoscale Advances **2019**, 1 (12), 4772-4782.

In Situ Eco Encapsulation of Bioactive Agrochemicals within Fully Organic Nanotubes.

Mejias, F. J. R.; Trasobares, S.; Lopez-Haro, M.; Varela, R. M.; Molinillo, J. M. G.; Calvino, J. J.; Macias, F. A.,
ACS Applied Materials & Interfaces **2019**, 11 (45), 41925-41934.

Photoelectrochemically Active N-Adsorbing Ultrathin TiO₂ Layers for Water-Splitting Applications Prepared by Pyrolysis of Oleic Acid on Iron Oxide Nanoparticle Surfaces under Nitrogen Environment

Kertmen, A.; Barbe, E.; Szkoda, M.; Siuzdak, K.; Babacic, V.; Torruella, P.; Iatsunskyi, I.; Kotkowiak, M.; Rytel, K.; Estrade, S.; Peiro, F.; Jurga, S.; Li, YG.; Coy, E.
Adv. Mater. Interfaces **2019**, 6, 1801286.

Low-Power, High-Performance, Non-volatile Inkjet-Printed HfO₂-Based Resistive Random Access Memory: From Device to Nanoscale Characterization

Vescio, G.; Martín, G.; Crespo-Yepes, A.; Claramunt, S.; Alonso, D.; López-Vidrier, J.; Estradé, S.; Porti M.; Rodriguez, R.; Peiró, F.; Cornet, A.; Cirera, A.; Nafría, M.
ACS Appl. Mater. Interfaces **2019**, 11, 23659–23666

Independent Tuning of Optical Transparency Window and Electrical Properties of Epitaxial SrVO₃ Thin Films by Substrate Mismatch

Mirjolet, M.; Vasili, H.B.; López-Conesa, L.; Estradé, S.; Peiró, F.; Santiso, J.; Sánchez, F.; Machado, P.; Gargiani, P.; Valvidares, M.; Fontcuberta, J.
Adv. Funct. Mater. **2019**, 29, 1904238 (1 of 11)

Zinc blende and wurtzite CoO polymorph nanoparticles: Rational synthesis and commensurate and incommensurate magnetic order.

I. V. Golosovsky, M. Estrader, A. López-Ortega, A. G. Roca, L. López-Conesa, S. Estradé, F. Peiró; Puente-Orench and J. Nogués
Applied Materials Today **2019**, 16, 322-331

Precise Size Control of the Growth of Fe₃O₄ Nanocubes over a Wide Size Range Using a Rationally Designed One-Pot Synthesis

Muro-Cruces, J.; Roca A.G.; López-Ortega, A.; Fantechi E.; Del-Pozo-Bueno, D.; Estradé, S.; Peiró, F.; Sepúlveda, B.; Pineider, F.; Sangregorio, C.; Nogues, J.
ACS Nano **2019**, 13, 7716-7728

Facile and Efficient Atomic Hydrogenation Enabled Black TiO₂ with Enhanced Photo-Electrochemical Activity via a Favorably Low-Energy-Barrier Pathway

Wang, X.; Mayrhofer, L.; Hofer, M.; Estrade, S.; Lopez-Conesa, L.; Zhou, H.; Lin, Y.; Peiró, F.; Fan, Z.; Shen, H.; Schaefer, L.; Moseler, M.; Braeuer, G. and Waag, A.
Adv. Energy Mater. **2019**, 9, 1900725

PAPERS PUBLISHED IN 2019

In the next tables the papers with impact factor higher than 5 are listed

JOURNAL	REFERENCE / DOI	IMPACT FACTOR	QUARTILE
CHEM SOC REV	48, 3903 (2019)	40,443	1
NATURE MATERIALS	10.1038/s41563-019-0412-6	38,887	1
ENERG ENVIRON SCI	12, 1309-1316 (2019)	33,25	1
ADV MATER	31, 1805360 (2019)	25,809	1
ADV MATER	31(28), 1900189 (2019)	25,809	1
ADV MATER	31(28), 1970200 (2019)	25,809	1
ACCOUNTS CHEM RES	52, 1565-1574 (2019)	21,661	1
NAT PHYS	15(1), 67-72 (2019)	20,113	1
JOURNAL OF HEPATOLOGY	10.1016/j.jhep.2018.10.015	18,946	1
CHEM-US	5, 733-738 (2019)	18,205	1
ADV FUNCT MATER	1902634 (2019)	15,621	1
ADV FUNCT MATER	10.1002/adfm.201901984	15,621	1
J AM CHEM SOC	141, 5192-5200 (2019)	14,695	1
J AM CHEM SOC	141, 7463-7472 (2019)	14,695	1
J AM CHEM SOC	141(38), 15403-15412 (2019)	14,695	1
J AM CHEM SOC	41, 16432-16438 (2019)	14,695	1
MATERIALS HORIZONS	10.1039/c8mh01510d	14,356	1
MATERIALS HORIZONS	10.1039/c9mh00580c	14,356	1
ACS NANO	13, 4424 (2019)	13,903	1
ACS NANO	13, 5451-5464 (2019)	13,903	1
COORDIN CHEM REV	399, 213024 (2019)	13,476	1
NANO LETTERS	10.1021/acs.nanolett.8b05083	12,279	1
NANO LETTERS	10.1021/acs.nanolett.9b03153	12,279	1
NANO LETTERS	10.1021/acs.nanolett.9b04584	12,279	1
NANO LETTERS	10.1021/acs.nanolett.9b02351	12,279	1
ANGEW CHEM INT EDIT	58, 510-514 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 2310-2315 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 3067-3072 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 3128-3132 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 6559-6563 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 6932-6937 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 16097-16100 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 16730-16740 (2019)	12,257	1
ANGEW CHEM INT EDIT	58, 18017-18024 (2019)	12,257	1
ACS CATALYSIS	10.1021/acscatal.9b04214	12,221	1
ACS CATALYSIS	10.1021/acscatal.9b03207	12,221	1

NAT COMMUN	10,327 (2019)	11,878	1
NAT COMMUN	10, 5011-5029 (2019)	11,878	1
NAT COMMUN	10, 509 (2019)	11,878	1
NAT COMMUN	10.1038/s41467-019-10103-5	11,878	1
EUR RESPIR J	54, OA2118 (2019)	11,807	1
EUR RESPIR J	54, PA2382 (2019)	11,807	1
CHEM MATER	31, 6435-6442 (2019)	10,159	1
CHEM MATER	31, 7024-7032 (2019)	10,159	1
SEMIN CANCER BIOL	54, 91-100 (2019)	9,658	1
CHEM SCI	11, 132-140 (2019)	9,556	1
PHYS REV LETT	122(3), 037601 (2019)	9,227	1
PHYS REV LETT	122(11), 116401 (2019)	9,227	1
ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.9b14714	8,456	1
EMBO REPORTS	10.15252/embr.201846832	8,383	1
CHEMICAL ENGINEERING JOURNAL	10.1016/j.cej.2018.08.150	8,355	1
CHEMICAL ENGINEERING JOURNAL	10.1016/j.cej.2018.09.223	8,355	1
REDOX BIOLOGY	10.1016/j.redox.2019.101214	7,793	1
JOURNAL OF CATALYSIS	10.1016/j.jcat.2019.06.009	7,723	1
J POWER SOURCES	427, 299-308 (2019)	7,467	1
2D MATER	6, 035023 (2019)	7,343	1
J PHYS CHEM LETT	10, 1587 (2019)	7,329	1
ACTA MATERIALIA	10.1016/j.actamat.2019.05.035	7,293	1
ACS SUSTAIN CHEM ENG	7, 15671-15683 (2019)	6,97	1
NANOSCALE	11, 4531-4545 (2019)	6,97	1
NANOSCALE	11(18), 9194-9200 (2019)	6,97	1
NANOSCALE	11, 13832-13844 (2019)	6,97	1
NANOSCALE	10.1039/c8nr07834c	6,97	1
NANOSCALE	10.1039/c8nr10464f	6,97	1
NANOSCALE	10.1039/c9nr05662a	6,97	1
NANOSCALE	10.1039/c9nr06631d	6,97	1
NANOSCALE	10.1039/c9nr03853a	6,97	1
NANOSCALE	10.1039/c9nr04974f	6,97	1
J MATER CHEM C	7, 4124 (2019)	6,641	1
J MATER CHEM C	7, 6641-6648 (2019)	6,641	1
J MATER CHEM C	7, 6649-6655 (2019)	6,641	1
J MATER CHEM C	7, 6656-6663 (2019)	6,641	1
J MATER CHEM C	7, 8962-8968 (2019)	6,641	1
J MATER CHEM C	10.1039/c9tc01305a	6,641	1
ACTA BIOMATER	83, 456-466 (2019)	6,638	1
ACTA BIOMATER	84, 317-327 (2019)	6,638	1

ACTA BIOMATER	86, 441-449 (2019)	6,638	1
ACTA BIOMATER	89, 359-371 (2019)	6,638	1
ACTA BIOMATER	90, 393-402 (2019)	6,638	1
ACTA BIOMATER	96, 547-556 (2019)	6,638	1
ACTA BIOMATER	101, 459-468 (2019)	6,638	1
ACTA BIOMATER	101, 544-553 (2019)	6,638	1
ORG LETT	21, 4563 (2019)	6,555	1
SENSOR ACTUAT B-CHEM	279, 458-465 (2019)	6,393	1
SENSOR ACTUAT B-CHEM	284, 711-722 (2019)	6,393	1
SENSOR ACTUAT B-CHEM	292, 210-216 (2019)	6,393	1
J COLLOID INTERF SCI	545, 153-161 (2019)	6,361	1
J COLLOID INTERF SCI	563, 92-103 (2019)	6,361	1
J COLLOID INTERF SCI	10.1016/j.jcis.2018.10.075	6,361	1
ANAL CHEM	91, 2231-2238 (2019)	6,35	1
ADV ELECTRON MATER	6(1), 1900852 (2019)	6,312	1
CHEM COMMUN	55, 1631 (2019)	6,164	1
CHEM COMMUN	55(18), 2563-2592 (2019)	6,164	1
CHEM COMMUN	55, 2731-2740 (2019)	6,164	1
CHEM COMMUN	55, 3223-3226 (2019)	6,164	1
CHEM COMMUN	55, 6070-6073 (2019)	6,164	1
CHEM COMMUN	55, 6795-6798 (2019)	6,164	1
CHEM COMMUN	10.1039/c8cc07185c	6,164	1
J MED CHEM	62, 6035-6046 (2019)	6,054	1
CARBOHYD POLYM	227, 115340 (2019)	6,044	1
MATER DESIGN	171, 107691 (2019)	5,77	1
ARCHIVES OF TOXICOLOGY	10.1007/s00204-018-2339-0	5,741	1
CATALYSIS SCIENCE & TECHNOLOGY	10.1039/c9cy01490j	5,726	1
PLANT CELL ENVIRON	42, 310-320 (2019)	5,624	1
CEMENT CONCRETE RES	124, 105816 (2019)	5,618	1
SCI TOTAL ENVIRON	656, 421-432 (2019)	5,589	1
MICROCHIM ACTA	186(7), 411 (2019)	5,479	1
EXPERT OPIN DRUG DEL	16, 1095-1112 (2019)	5,4	1
EXPERT OPIN DRUG DEL	22, 1-25 (2019)	5,4	1
J EXP BOT	70(11), 2965-2978 (2019)	5,36	1
ANAL CHIM ACTA	1049, 65-73 (2019)	5,256	1
CHEM-EUR J	25, 3224-3228 (2019)	5,16	1
CHEM-EUR J	25, 5848-5864 (2019)	5,16	1
CHEM-EUR J	25, 12394 (2019)	5,16	1
CHEM-EUR J	25, 13157-13163 (2019)	5,16	1
CHEM-EUR J	25, 16012-16016 (2019)	5,16	1
CHEM-EUR J	10.1002/chem.201806307	5,16	1

NEUROBIOL DIS	130,104482 (2019)	5,16	1
ENVIRON MICROBIOL	21(10), 3577-3600 (2019)	5,147	1
GEOLOGY	10.1130/G46459C.1	5,006	1
GEOLOGY	10.1130/G46602Y.1	5,006	1