



RESUMEN DE LA ACTIVIDAD INVESTIGADORA DEL DEPARTAMENTO DE SISTEMAS FÍSICOS, QUÍMICOS Y NATURALES. CURSO 2023/2024

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LISTA DE ARTÍCULOS PUBLICADOS

Área de Cristalografía y Mineralogía (9)

- Gil Torrano, A., Gómez Morón, M. A., Vendrell Saz, M., & Ortiz Calderón, M. P. (2025). Efecto de incendios en pintura mural y corlas. *Macla: revista de la Sociedad Española de Mineralogía*, 28, 100-101.
- Gómez Morón, M. A., Becerra, J., & Ortiz Calderón, M. P. (2025). Hilos con historia: análisis de los bordados metálicos del palio de la Virgen del Valle de Sevilla. *Macla: revista de la Sociedad Española de Mineralogía*, 28, 104-105.
- Moreno, M., Gil Torrano, A., Ortiz Calderón, R., & Ortiz Calderón, M. P. (2025). El uso de Imágenes Hiperespectrales aplicado a la caracterización de prototipos de pinturas romanas con pigmentos azules. *Macla: revista de la Sociedad Española de Mineralogía*, 28, 162-163.
- Ortiz Calderón, M. P., Ortiz Calderón, R., Moreno Falcón, M., & Segura Pachón, D. (2025). Las eflorescencias del interior de la catedral de Cádiz. *Macla: revista de la Sociedad Española de Mineralogía*, 28, 180-181.
- Toro Murillo, L. C., Barba Brios, C., García, D. M., Campos Díaz de Mayorga, P., Gil Torrano, A., Ortiz Calderón, M. P., & González-Díez, I. (2025). Caracterización de esmaltes cerámicos de la Plaza de España de Sevilla mediante el uso de técnicas no destructivas. *Macla: revista de la Sociedad Española de Mineralogía*, 28, 230-231.



- Moreno, M., Ortiz, R., & Ortiz, P. (2024). Remote sensing to assess the risk for cultural heritage: forecasting potential collapses due to rainfall in historic fortifications. International Journal of Building Pathology and Adaptation, 42(1), 92-113. <https://doi.org/10.1108/IJBPA-03-2022-0040>
- Herrera Pérez, S., Fernández González, L., Menguiano Chaparro, V. M., Gómez Morón, M. A., & García Garrido, C. (2024). Un proyecto singular para una obra excepcional: la puesta en valor del Pendón de los Zamorano. PH: Boletín del Instituto Andaluz del Patrimonio Histórico, 32(112), 296-307. <https://doi.org/10.33349/2024.112.5573>
- Angel Gómez, C., Fernández González, L., Gómez Morón, M. A., & Morales Muñoz, M. (2024). Proyecto de conservación de trece thangkas tibetanos de la Fundación Pública Andaluza Rodríguez-Acosta. PH: Boletín del Instituto Andaluz del Patrimonio Histórico, 32(112), 286-295. <https://doi.org/10.33349/2024.112.5572>
- Moreno, M.* (2024) Revisión bibliográfica crítica acerca de la aplicación de nanopartículas para el control del ph en libros y documentos. Conserva: conservación, restauración y patrimonio, 25, 11-21. <https://doi.org/10.70721/rc.n25.2020.11>

Área de Física Aplicada (11)

- P.G. Ortega, D.R. Entem, F. Fernández and J. Segovia, Revisiting the proton-antiproton scattering using a constituent-quark-model based coupled-channels calculation, Phys. Lett. B862 (2025) 139281.
- M.C. Gordillo, J. Segovia and J.M. Alcaraz-Pelegrina, “Diffusion Monte Carlo calculation of fully heavy pentaquarks”, Phys. Rev. D110 (2024) 094024.
- Gang Yang, Jialun Ping and Jorge Segovia, “Triply charm and bottom tetraquarks in a constituent quark model”, Phys. Rev. D110 (2024) 054036.
- M. Conde-Correa, T. Aguilar, A. Capelo-Astudillo, A. Duenas-Vidal, P.G. Ortega and J. Segovia, “Chiral quark model analysis of the \$\\bar{K} N\$ interaction”, Phys. Rev. D110 (2024) 094019.
- P. Martín-Higueras, P.G. Ortega, D.R. Entem, J. Segovia and F. Fernández, “Study of the \$\\Omega_{ccc}\\Omega_{ccc}\$ and \$\\Omega_{bbb}\\Omega_{bbb}\$ dibaryons in constituent quark model”, Phys. Rev. D111 (2025) 054002.
- Y.-Z. Xu, K. Raya, J. Segovia and J. Rodríguez-Quintero, “Charge distributions of pseudo-scalar and vector mesons from Dyson-Schwinger equations” Phys. Rev. D110 (2024) 054031.
- P.G. Ortega, D.R. Entem, F. Fernández and J. Segovia, “Exploring doubly-heavy tetraquarks in constituent-quark-model based meson-meson coupled-channels approach”, Phys. Rev. D110 (2024) 054038.
- T. Aguilar, A. Capelo-Astudillo, M. Conde-Correa, A. Duenas-Vidal, P.G. Ortega and J. Segovia, “Detailed derivation of the 3P0 strong decay model applied to baryons”, Chinese Physics C49 (2025) 013108.
- M.C. Gordillo. "Unbalanced droplets of one-dimensional mixtures of fermions" Phys. Rev. A 111 023321 1-7 (2025).



- Nonperturbative four-gluon vertex in soft kinematics. A.C. Aguilar, F. De Soto, M.N. Ferreira, J. Papavassiliou, F. Pinto-Gómez, J. Rodríguez-Quintero, L.R. Santos. Phys. Lett. B858 (2024) 139065.
- Complete analysis of the Landau-gauge three-gluon vertex from lattice QCD. F. Pinto-Gómez, F. De Soto, J. Rodríguez-Quintero. Phys. Rev. D110 (2024) 014005.

Área de Física de la Tierra (5)

- Gallego, D., García-Herrera, R., Tomety, F. S., Álvarez-Castro, M. C., & Peña-Ortiz, C. (2025). Historical record of upwelling-favorable winds in Southern Benguela 1833–2014. Npj Climate and Atmospheric Science, 8(1). <https://doi.org/10.1038/s41612-025-00925-0>
- Garrido-Perez, J. M., Barriopedro, D., Trigo, R. M., Soares, P. M. M., Zappa, G., Álvarez-Castro, M. C., & García-Herrera, R. (2024). Storylines of projected summer warming in Iberia using atmospheric circulation, soil moisture and sea surface temperature as drivers of uncertainty. Atmospheric Research, 311, 107677. <https://doi.org/10.1016/j.atmosres.2024.107677>
- Faranda, D., Messori, G., Alberti, T., Alvarez-Castro, C., Caby, T., Cavicchia, L., Coppola, E., Donner, R. V., Dubrulle, B., Galfi, V. M., Holmberg, E., Lembo, V., Noyelle, R., Yiou, P., Spagnolo, B., Valenti, D., Vaienti, S., & Wormell, C. (2024). Statistical physics and dynamical systems perspectives on geophysical extreme events. Physical Review E, 110(4). <https://doi.org/10.1103/physreve.110.041001>
- Gaetani, M., Messori, G., Pausata, F. S. R., Tiwari, S., Alvarez Castro, M. C., & Zhang, Q. (2024). Mid-Holocene climate at mid-latitudes: assessing the impact of Saharan greening. Climate of the Past, 20(8), 1735–1759. <https://doi.org/10.5194/cp-20-1735-2024>
- Serrano-Notivoli, R. , Peña-Ortiz, C., Nieto, R., Álvarez-Castro,C., Bedoya, S., Corell, D., Dorta-Antequera, P., Duran, L., Fernandez-Alvarez, J.C., Gonzalez-Roji, S.J., Herrera, S., Jansa, A., Rodríguez-Fonseca, B., Trascasa-Castro, P., Utrabo-Carazo, E. Variables atmosféricas en España durante el periodo observacional: variabilidad, tendencias y mecanismos de circulación asociados. Informe CLIVAR-SPAIN sobre el clima en España. 2024. ISBN 978-84-18778-47-6

Área de Geodinámica Externa (13)

- Balanyá, J. C., Díaz-Azpiroz, M., Jiménez-Bonilla, A., Sánchez-Gómez, M., Crespo-Blanc, A., & Expósito, I. (2025). Strain partitioning across the outer boundary of the Alboran Domain crystalline thrust sheet. Implications on the kinematic pattern of the Western Gibraltar Arc. Journal of Geodynamics, 164, 102088.
- Guardiola-Albert, C., Naranjo-Fernández, N., Rivera-Rivera, J. S., Gómez-Fontalva, J.M., Aguilera, H., Ruiz-Bermudo, F., y Rodríguez-Rodríguez, M. (2024). Enhancing groundwater management with GRACE-based groundwater estimates from GLDAS-2.2: a case study of the Almonte-Marismas aquifer, Spain. Hydrogeology Journal, 32(7), 1833-1852.



- Jiménez-Bonilla, A., Martegani, L., Rodríguez-Rodríguez, M., Gázquez, F., Díaz-Azpíroz, M., Martos, S., Reicherter, K., y Expósito, I. (2024). The role of neotectonics and climate variability in the Pleistocene-to-Holocene hydrological evolution of the Fuente de Piedra playa lake (southern Iberian Peninsula). *Hydrology and Earth System Sciences*, 28(23), 5311-5329.
- Jiménez-Bonilla, A., Rodríguez-Rodríguez, M., Yanes, J. L., y Gázquez, F. (2025). Impact of climate change on permanent lakes in a semiarid region: Southwestern Mediterranean basin (Spain). *Science of The Total Environment*, 961, 178305.
- Jiménez-Moreno, G., García-Alix, A., Gázquez, F., Castillo-Baquera, A., Martegani, L., Rodríguez-Rodríguez, M., Rodrigo-Gámiz, M. y Jiménez-Espejo, F. J. (2025). Climate dynamics during the last 3000 years forced environmental and sedimentation changes in southern Spain: The Laguna Grande de Archidona record. *CATENA*, 256, 109123.
- Martegani, L., Gázquez, F., Voigt, C., Jiménez-Bonilla, A., Rodríguez-Rodríguez, M. y Reicherter, K. (2025). Late-Quaternary lake-groundwater interaction in Fuente de Piedra playalake (southern Iberian Peninsula) recorded by stable isotopes of gypsum hydration water. *CATENA*, 254, 108949.
- Moral, F. 2025. Apuntes geomorfológicos de las sierras de Castril y Seca (Cordillera Bética, Granada y Jaén). *Boletín SEDECK*, 20.
- Morales-González, A.L., Jódar, J., Moral-Martos, F., Jiménez-Espinosa, R., Gázquez, F., y González-Ramón, A. 2024. Delineation of the Hydrogeological Functioning of a Karst Aquifer System Using a Combination of Environmental Isotopes and Artificial Tracers: The Case of the Sierra Seca Range (Andalucía, Spain). *Water* 2024, 16, 2768. <https://doi.org/10.3390/w16192768>.
- Rodríguez-Rodríguez, M., Halmos, L., Jiménez-Bonilla, A., Díaz-Azpíroz, M., Gázquez, F., Delgado, J., Fernández-Ayuso, A., Expósito, I. Martos-Rosillo, S. y Yanes, J. L. (2025). Assessing the Impact of Groundwater Extraction and Climate Change on a Protected Playa-Lake System in the Southern Iberian Peninsula: La Ratosa Natural Reserve. *Geographies*, 2025, vol. 5, no 2, p. 21.
- Rodríguez-Rodríguez, M., Jiménez-Bonilla, A., Díaz-Azpiroz, M., & Gázquez, F. (2024). Decoupling anthropogenic, climatic, and tectonic factors in the hydrology of playa-lakes in a semi-arid, tectonically active region (betic orogen, southern Spain). *Environmental Earth Sciences*, 83(20), 589.
- Voigt, C.; Gázquez, F., Martegani, L., Sánchez-Villanueva, A.I., Medina, A., Jiménez-Espinosa, R., Jiménez-Millán, J. y Rodríguez-Rodríguez, M. (2025). How seasonal hydroclimate variability drives the triple oxygen and hydrogen isotope composition of small lake systems in semiarid environments. *Hydrology and Earth Systems Science*. <https://doi.org/10.5194/hess-2024-290>, in review, 2024.
- Yanes, J. L., Jiménez-Bonilla, A., Martínez-Caro, M., Fernández-Ayuso, A., y Rodríguez-Rodríguez, M. (2025). Groundwater/Surface Water Temperature Variations and Hydrogeological Implications in Doñana National Park. *Environments*, 12(3), 83.
- Yanes, J. L., Rodríguez-Rodríguez, M., Montes-Vega, M. J., Jiménez-Bonilla, A., & Moral, F. (2024). Monitorización hidrológica de las lagunas peridunares de los mantos eólicos de Doñana en el periodo 2020-2023. *Geogaceta*, 76, 55-58.



Área de Geodinámica Interna (8)

- Alonso Henar, Jorge; Fernández, Carlos; Díaz Azpiroz, Manuel; Druguet, Elena. Unsteady transpression: How progressive variations in kinematic vorticity influence finite strain in shear zone evolution. *Journal of Structural Geology* 198.
- Rodríguez Rodríguez, Miguel; Halmos, Laszlo; Jiménez Bonilla, Alejandro; Díaz Azpiroz, Manuel; Gázquez, Fernando; Delgado, Joaquín; Fernández Ayuso, Ana; Expósito, Inmaculada; Martos, Sergio; Yanes, José Luis. Assessing the Impact of Groundwater Extraction and Climate Change on a Protected Playa-Lake System in the Southern Iberian Peninsula: La Ratos Natural Reserve. *Geographies* 5.
- Balanyá Roure, Juan Carlos; Díaz Azpiroz, Manuel; Jiménez Bonilla, Alejandro; Sánchez-Gómez, Mario; Crespo-Blanc, Ana; Expósito Ramos, Inmaculada. Strain partitioning across the outer boundary of the Alboran Domain crystalline thrust sheet. Implications on the kinematic pattern of the Western Gibraltar Arc. *Journal of Geodynamics* 164.
- Jiménez Bonilla, Alejandro; Martegani, L.; Rodríguez Rodríguez, Miguel; Gázquez, Fernando; Díaz Azpiroz, Manuel; Martos, Sergio; Reicherter, Klaus; Expósito, Inmaculada. The role of neotectonics and climate variability in the Pleistocene-to-Holocene hydrological evolution of the Fuente de Piedra playa lake (southern Iberian Peninsula). *Hydrology and Earth System Sciences* 28
- Rodríguez Rodríguez, Miguel; Jiménez Bonilla, Alejandro; Díaz Azpiroz, Manuel; Gázquez, Fernando. Decoupling anthropogenic, climatic, and tectonic factors in the hydrology of playa-lakes in a semi-arid, tectonically active region (betic orogen, southern Spain). *Environmental Earth Sciences* 83.
- Jiménez Bonilla, Alejandro; Balanyá Roure, Juan Carlos; Expósito Ramos, Inmaculada; Díaz Azpiroz, Manuel. Geometry and Late-Miocene to the Recent evolution of the western Betics external orogenic wedge. *Geogaceta* 76.
- Fernández, Carlos; Díaz Azpiroz, Manuel; Alonso Henar, Jorge. Modelo cinemático para la génesis de tectonitas S bajo transtensión triclínica. *Geo-Temas* 20.
- Alonso Henar, Jorge; Fernández, Carlos; Díaz Azpiroz, Manuel. Transpresión no estacionaria. *Geo-Temas* 20.

Área de Química Física (27)

- Cuetos, A.; Martínez-Haya, B.; Romero-Enrique, J. M. Vapour-liquid equilibrium and low-temperature liquid-crystal phase diagram of discotic colloids. *Mol. Phys.* 122 (2024)
- Daza, F. A. G.; Puertas, A. M.; Cuetos, A.; Patti, A. Superdiffusion and heterogeneous dynamics in liquid crystals by microrheology. *Mol. Phys.* 122, (2024)
- Lobo-Cabrera, F.J.; Herrero, M. R.; Govantes, F.; Cuetos, A. Computer simulation study of nutrient-driven bacterial biofilm stratification. *J. R. Soc. Interface* 21, 20230618 (2024).



- Gomez-Verdu, J. M.; Martinez-Haya, B.; Cuetos, A. Effects of charge and size on the coadsorption of counterionic colloids in Gibbs monolayers. *Cond. Matt. Phys.* 27, 13601 (2024).
- A.Y. Torres-Boy, M.I. Taccone, K. Ober, M.B.T. Osenton, G. Meijer, G. von Helden, B. Martínez-Haya. Spectroscopic investigation of proton bonding at sub-kelvin temperaturas. *Physical Chemistry Chemical Physics* (2025), 27, 1990-2000.
- M. de Lucas, J.R. Aviles-Moreno, G. Berden, J. Martens, J. Oomens, F. Gamez, B. Martinez-Haya. Intramolecular proton bonding in aliphatic dicarboxylate anions: dynamic conformational landscapes and spectral signatures. *Physical Chemistry Chemical Physics* (2025), 27, 11725-11736.
- D. Corinti, G. Berden, J. Oomens, B. Martinez-Haya, S. Fornarini, M.E. Crestoni, IRMPD spectroscopy of deprotonated selenocysteine- The 21st proteinogenic amino acid. *International Journal of Mass Spectrometry* (2024) 505, 117322 1-9
- S. D. Coria-Quiñones, I.G. Rodríguez-Gutiérrez, M.A. Hernández-Landaverde, G. Oskam, J. A. Torres-Ochoa, A. K. Díaz-García, O. Jiménez-Sandoval. Effect of lanthanide (La, Nd, Gd) doping on the structural and photoelectrochemical properties of WO₃ thin films synthesized by sol-gel. *J. Mater. Res.* 40, 1252–1264 (2025).
- F.I. Lizama-Tzec, D. Herrera-Zamora, M. Rodríguez-Pérez, A. Vega-Poot, R. Pérez-Espinosa, O. Ceh, O. García-Valladares, G. Oskam, G. Rodriguez-Gattorno. Low-Cost Integral Collector-Storage Solar Systems. *Appl. Thermal Eng.* 274 (2025) 126675.
- P. Sánchez-Fernández, V. Mwalukuku, M. Miró-Llorente, R. Escalante, P. Vidal-Fuentes, M. Guc, P. Pistor, G. Oskam, C. A. Aranda, J. A. Anta. Impact of Transparent Conducting Oxide on the Performance of Dye-Sensitised Solar Cells for Indoor Applications *Sol. RRL*. 2500077 (2025).
- C.A. Aranda, W. Li, E. Martínez-Ferrero, P. Pistor, G. Oskam, E. Palomares, and J. Anta. Insights from Impedance Spectroscopy in Perovskite Solar Cells with Self-Assembled Monolayers: Decoding SAM's Tricks *J. Phys. Chem. Lett.* 16, 2301–2308 (2025).
- N.G. García-Peña, M. Nabil, D. Pourjafari, D. Peralta-Domínguez, W. Y. Padrón-Hernández, A. P. Franco-Bacca, A. Ríos-Flores, B. E. Heredia-Cervera, R. Escalante, G. Rodríguez Gattorno, M. Acosta, P. Pistor, J. A. Anta, and G. Oskam. Improving the Performance of Carbon-Based Perovskite Solar Cells by the Incorporation of a Screen-Printed NiCo₂O₄ Interlayer *ACS Appl. Energy Mater.* 8, 1446–1457 (2025).
- F.J. Peón-Díaz, J.C. Expósito-Gálvez, R. Segura del Río, R. Henríquez, S. Fuentes Villalobos, D.J. Rodríguez, G. Oskam. Charge carrier dynamics of chemical vapor deposited carbon-doped titanium dioxide photoanodes *Ceram. Int.* 50, 55134–55142 (2024).
- F.I. Lizama-Tzec, M. J. Cetina-Dorantes, D. M. Herrera-Zamora, J. J. Alvarado-Gil, G. Rodríguez-Gattorno, M. A. Estrella-Gutiérrez, O. García-Valladares, C. Vales-Pinzón, G. Oskam. A Spray-Deposited Modified Silica Film on Selective Coatings for Low-Cost Solar Collectors *Coatings* 14, 1368 (2024).
- D.R. Gómez-Mejía, J. C. Expósito-Gálvez, G. Oskam, D. Olguín-Melo, O. Jiménez-Sandoval. Synthesis, characterization and photoelectrochemical performance of Bi₂Fe₄O₉ thin films *Mater. Today Chem.* 40, 102250 (2024).



- van Heijst, J; Martin-Calvo, A and Calero, S. Hydrogen recovery from steam methane reforming using the ITQ-12 zeolite. *SEPARATION AND PURIFICATION TECHNOLOGY*, 350, Article Number: 127895
- Farrando-Perez, J; Missyul, A; Martín-Calvo, A; Abreu-Jauregui, C; Ramírez-Cerezo, V; Daemen, L; Cheng, YQ; Ramirez-Cuesta, AJ; Calero, S; Carrillo-Carrión, C; Silvestre-Albero. Molecular recognition-induced structural flexibility in ZIF-71. *JOURNAL OF MATERIALS CHEMISTRY A*, 12, Issue42, Page28975-28984
- Sanchez-Cano, G; Cristobal-Cueto, P; Saez, L; Lastra, A; Martin-Calvo, A; Gutierrez-Sevillano, JJ ; Calero, S; Rojas, S; Horcajada, P. Drinking water purification using metal-organic frameworks: Removal of disinfection by-products. *CHEM*, Issue4, Article Number: 102356
- D. Dodoo, P. J. Merkling, R. M. Madero-Castro, S. Calero, J. J. Gutiérrez-Sevillano. High selectivity and adsorption capacity of cation-exchanged zeolites for biogas, syngas and flue gas separation in pressure swing adsorption unit. *ACS Applied Energy Materials* 7 (15), 6488-6498, 2024
- E. Acuna-Yeomans, PJ Goosen, JJ Gutiérrez-Sevillano, D Dubbeldam, S Calero. Effect of water loading on the stability of pristine and defected UiO-66. *Journal of Materials Chemistry A* 12 (37), 25233-25243, 2024
- B Zhakisheva, JJ Gutiérrez-Sevillano, S Calero ; "The effect of cations on the ammonia synthesis reaction under the confinement in FAU zeolites" *Microporous and Mesoporous Materials* 385, 113480, 2025
- Y. S. Durán-Avendaño, N. Cruz Hernández, A. R. Ruiz-Salvador, and M. Abatal, Further Insight in the High Selectivity of Pb²⁺ Removal over Cd²⁺ in Natural and Dealuminated Rich-Clinoptilolite. *Int. J. Mol. Sci.* 2025, 26(9), 4154;
- P. Prieto-Laria, A. Jiménez-Rodríguez, A. Rabdel Ruiz-Salvador, I. Canosa, A. Flores, Y. Coll, K. Borrego, N. O. Nuñe, E. Alonso, P. Fernández-Ibáñez, T. Farias, Menta Ballesteros, From the lab to the river: Bimetallic clinoptilolite photocatalyst for antibiotic-resistant bacteria and emerging contaminants removal. *J. Environ. Chem. Eng.*, 13 (2025) 116663
- L. Santos-Juanes, N. Rodriguez-Sánchez, S. R. G. Balestra, N. O. Núñez, A. Arques, A. R. Ruiz-Salvador and M. Ballesteros, A hypervalent metal MOF catalyst as an avenue to go beyond heterogeneous Fenton-like processes for organic contaminant removal in water. *Mater. Adv.*, 2025
- N. Rodriguez-Sánchez, B. Bhattacharya, F. Emmerling, C. Prinz, P. Prieto-Laria, A. R. Ruiz-Salvador and M. Ballesteros, Engineering a multivariate cobalt metal-organic framework for high photocatalytic activity: the impact of mixed ligands and metal incorporation in a visible light-driven heterogeneous photo-Fenton reaction for water treatment. *Nanoscale Adv.* 7 (2025) 2255-2265
- N. Rodriguez-Sánchez, C. Prinz, R. Bienert, M. Ballesteros, A. R. Ruiz-Salvador, B Bhattacharya and Franziska Emmerling, Mechanochemical ZIF-9 formation: in situ analysis and photocatalytic enhancement evaluation. *RSC Mechanochem.*, 2025, 2, 116-126
- K.B. Morales, D. Ballesteros-Plata, E. Rodríguez-Castellon, J.A. Cecilia, A.R. Ruiz-Salvador, G.I. A. Castro, T. Farías, Chromatographic propane-propylene separation by different zeolites obtained from rice husk ashes. *App. Surf. Sci.* 2024, 669, 160541.



Área de Zoología (5)

- M.J. Reyes-Martínez, J.M. Miró, L. Vicente, C. Megina, I. Donázar-Aramendía, J.C. García-Gómez, J.I. González-Gordillo."Mesozooplankton assemblage in the gulf of Cádiz estuaries: Taxonomic and trait-based approaches". Marine Environmental Research, Volume 198, June 2024, 106554. <https://doi.org/10.1016/j.marenvres.2024.106554>
- Pablo Saenz-Arias, Carlos Navarro-Barranco, Juan Moreira, María José Reyes-Martínez, José Manuel Guerra-García."Light traps as an exploratory tool in light pollution studies: Assessment of vulnerable species and their migratory patterns". Ocean & Coastal Management, Volume 255, 1 September 2024, 107207. <https://doi.org/10.1016/j.ocecoaman.2024.107207>
- Javier Díaz-Pérez, José M. Landeira, Santiago Hernández-León, M. José Reyes-Martínez, Juan Ignacio González-Gordillo."Distribution patterns of micronektonic crustaceans (Decapoda, Euphausiacea, and Lophogastrida) in the tropical and subtropical Atlantic Ocean". Progress in Oceanography Volume 228, November 2024, 103331. <https://doi.org/10.1016/j.pocean.2024.103331>
- Donázar-Aramendía, C. Megina, J.M. Miró, M. Florido, M.J. Reyes-Martínez, L. Olaya-Ponzone, J.C. García-Gómez."Environmental effects of maintenance dredging works in a highly modified estuary: A short-term approach". Ocean & Coastal Management Volume 258, 1 November 2024, 107394. <https://doi.org/10.1016/j.ocecoaman.2024.107394>
- Donázar-Aramendía, M.J. Reyes-Martínez, C. Megina, M. Florido, J.C. García-Gómez."Assessing the effects of electromagnetic fields generated by submarine power cables on the soft-bottom community: An ecological in-situ study". Environmental Research. Volume 266, 1 February 2025, 120573. <https://doi.org/10.1016/j.envres.2024.120573>