



ESCUELA POLITÉCNICA SUPERIOR

MEMORIA DE INVESTIGACIÓN 2022



ARTÍCULOS

- Abatal, M., Avendaño, Y. S. D., Hernández, N. C., Giannakoudakis, D. A., Anastopoulos, I., & Gutierrez, M. T. O. (2022). Leucaena leucocephala as biomass material for the removal of heavy metals and metalloids. *Biomass-derived materials for environmental applications* (pp. 287-306) doi:10.1016/B978-0-323-91914-2.00002-7 Retrieved from www.scopus.com
- Abdullah, J. A. A., Jiménez-Rosado, M., Benítez, J. J., Guerrero, A., & Romero, A. (2022). Biopolymer-based films reinforced with Fe_xO_y-nanoparticles. *Polymers*, 14(21) doi:10.3390/polym14214487
- Abdullah, J. A. A., Jiménez-Rosado, M., Guerrero, A., & Romero, A. (2022). Biopolymer-based films reinforced with green synthesized zinc oxide nanoparticles. *Polymers*, 14(23) doi:10.3390/polym14235202
- Abdullah, J. A. A., Jiménez-Rosado, M., Guerrero, A., & Romero, A. (2022). Gelatin-based biofilms with Fe_xO_y-NPs incorporated for antioxidant and antimicrobial applications. *Materials*, 15(5) doi:10.3390/ma15051966
- Abdullah, J. A. A., Jiménez-Rosado, M., Perez-Puyana, V., Guerrero, A., & Romero, A. (2022). Green synthesis of Fe_xO_y nanoparticles with potential antioxidant properties. *Nanomaterials*, 12(14) doi:10.3390/nano12142449
- Alba-Rodríguez, M. D., Solís-Guzmán, J., & Marrero, M. (2022). Evaluation model of the economic-environmental impact on housing recovery. application in the city of seville, spain. *Sustainable Cities and Society*, 83 doi:10.1016/j.scs.2022.103940
- Alcudia, A., Begines, B., Rodriguez-Lejarraga, P., Greyer, V., Godinho, V. C. F., Pajuelo, E., & Torres, Y. (2022). Development of porous silver nanoparticle/polycaprolactone/polyvinyl alcohol coatings for prophylaxis in titanium interconnected samples for dental implants. *Colloids and Interface Science Communications*, 48 doi:10.1016/j.colcom.2022.100621
- Alfaro-Rodríguez, M. -., Prieto, P., García, M. C., Martín-Piñero, M. J., & Muñoz, J. (2022). Influence of nanoemulsion/gum ratio on droplet size distribution, rheology and physical stability of nanoemulgels containing inulin and omega-3 fatty acids. *Journal of the Science of Food and Agriculture*, 102(14), 6397-6403. doi:10.1002/jsfa.12005
- Alonso-González, M., Felix, M., & Romero, A. (2022). Influence of the plasticizer on rice bran-based eco-friendly bioplastics obtained by injection moulding. *Industrial Crops and Products*, 180 doi:10.1016/j.indcrop.2022.114767
- Alonso-González, M., Felix, M., & Romero, A. (2022). Rice bran-based bioplastics: Effects of biopolymer fractions on their mechanical, functional and microstructural properties. *Polymers*, 14(1) doi:10.3390/polym14010100
- Arenas, M., Martín, J., Santos, J. L., Aparicio, I., & Alonso, E. (2022). Enantioselective behavior of environmental chiral pollutants: A comprehensive review. *Critical Reviews in Environmental Science and Technology*, 52(17), 2995-3034. doi:10.1080/10643389.2021.1900764
- Arenas, M., Martín, J., Santos, J. L., Aparicio, I., Fernández-Sanfrancisco, O., & Alonso, E. (2022). Comparison of different techniques for the determination of platinized cytostatic drugs in urine samples. *Molecules*, 27(23) doi:10.3390/molecules27238139
- Ariza-Galván, E., Montealegre-Meléndez, I., Pérez-Soriano, E. M., Neubauer, E., Kitzmantel, M., & Arévalo, C. (2022). Influence of processing conditions on the mechanical properties of 17-4PH specimens produced by additive manufacturing. *Machines*, 10(11) doi:10.3390/machines10110976
- Ávila-Gutiérrez, M. J., de Miranda, S. S. -., & Aguayo-González, F. (2022). Occupational safety and health 5.0—A model for multilevel strategic deployment aligned with the sustainable development goals of agenda 2030. *Sustainability (Switzerland)*, 14(11) doi:10.3390/su14116741

- Bachiller Soler, A., Cano Gonzalez, R., & González Cagigal, M. A. (2022). *First order transients* doi:10.1007/978-3-030-88144-3_1 Retrieved from www.scopus.com
- Bachiller Soler, A., Cano Gonzalez, R., & González Cagigal, M. A. (2022). *Laplace transform analysis* doi:10.1007/978-3-030-88144-3_3 Retrieved from www.scopus.com
- Bachiller Soler, A., Cano Gonzalez, R., & González Cagigal, M. A. (2022). *Second order transients* doi:10.1007/978-3-030-88144-3_2 Retrieved from www.scopus.com
- Barbancho, J., Alarcón, B., Domínguez-Cid, S., Lora, P., & Luque, J. (2022). OPALS, open platform applied to learning digital control systems. Paper presented at the *15th International Conference of Technology, Learning and Teaching of Electronics, TAEE 2022 - Proceedings*, doi:10.1109/TAEE54169.2022.9840741 Retrieved from www.scopus.com
- Beltrán, A. M., & Begines, B. (2022). Surface modification, functionalization and characterization of metallic biomaterials. *Metals*, 12(4) doi:10.3390/met12040667
- Beltrán, A. M., Giner, M., Rodríguez, Á., Trueba, P., Rodríguez-Albelo, L. M., Vázquez-Gámez, M. A., . . . Torres, Y. (2022). Influence of femtosecond laser modification on biomechanical and biofunctional behavior of porous titanium substrates. *Materials*, 15(9) doi:10.3390/ma15092969
- Beltrán, A. M., Trueba, P., Borie, F., Alcudia, A., Begines, B., Rodriguez-Ortiz, J. A., & Torres, Y. (2022). Bioactive bilayer glass coating on porous titanium substrates with enhanced biofunctional and tribomechanical behavior. *Coatings*, 12(2) doi:10.3390/coatings12020245
- Bobaru, S., Rico-Gavira, V., García-Valenzuela, A., López-Santos, C., & González-Elipe, A. R. (2022). Electron beam evaporated vs. magnetron sputtered nanocolumnar porous stainless steel: Corrosion resistance, wetting behavior and anti-bacterial activity. *Materials Today Communications*, 31 doi:10.1016/j.mtcomm.2022.103266
- Budagosky, J., García-Casas, X., Sánchez-Valencia, J. R., Barranco, Á., & Borrás, A. (2022). Coarse-grained approach to amorphous and anisotropic materials in kinetic monte carlo thin-film growth simulations: A case study of TiO₂ and ZnO by plasma-enhanced chemical vapor deposition. *Plasma Processes and Polymers*, 19(3) doi:10.1002/ppap.202100179
- Budagosky, J. A., & García-Cristóbal, A. (2022). Multiscale kinetic monte carlo simulation of self-organized growth of GaN/AlN quantum dots. *Nanomaterials*, 12(17) doi:10.3390/nano12173052
- Cabeza-Ruiz, R., Velázquez-Pérez, L., Linares-Barranco, A., & Pérez-Rodríguez, R. (2022). Convolutional neural networks for segmenting cerebellar fissures from magnetic resonance imaging. *Sensors*, 22(4) doi:10.3390/s22041345
- Cagigas-Muñiz, D., Diaz-del-Rio, F., Sevillano-Ramos, J. L., & Guisado-Lizar, J. -. (2022). Efficient simulation execution of cellular automata on GPU. *Simulation Modelling Practice and Theory*, 118 doi:10.1016/j.simpat.2022.102519
- Calderón, C., & Castro, M. M. (2022). Structural formulas for matrix-valued orthogonal polynomials related to 2×2 hypergeometric operators. *Bulletin of the Malaysian Mathematical Sciences Society*, 45(2), 697-726. doi:10.1007/s40840-021-01211-x
- Cañete, R., & Peralta, E. (2022). Assistive technology to improve collaboration in children with ASD: State-of-the-art and future challenges in the smart products sector. *Sensors*, 22(21) doi:10.3390/s22218321
- Cañete, R., & Peralta, M. E. (2022). ASDesign: A user-centered method for the design of assistive technology that helps children with autism spectrum disorders be more independent in their daily routines. *Sustainability (Switzerland)*, 14(1) doi:10.3390/su14010516
- Cañete, R., & Peralta, M. E. (2022). Importance of participatory methods when designing for inclusivity: Exploring how COVID-19 has highlighted the search for interconnected needs in family life. *International Journal of Design in Society*, 16(2), 75-89. doi:10.18848/2325-1328/CGP/v16i02/75-89
- Caraballo, L. E., Díaz-Báñez, J. M., Rodríguez, F., Sánchez-Canales, V., & Ventura, I. (2022). Scaling and compressing melodies using geometric similarity measures. *Applied Mathematics and Computation*, 426 doi:10.1016/j.amc.2022.127130

- Carracedo-Cosme, J., Romero-Muñiz, C., Pou, P., & Pérez, R. (2022). QUAM-AFM: A free database for molecular identification by atomic force microscopy. *Journal of Chemical Information and Modeling*, 62(5), 1214-1223. doi:10.1021/acs.jcim.1c01323
- Carrera-Sánchez, C., Félix, M., Bengoechea, C., Romero, A., & Guerrero, A. (2022). Development of complex interfaces for the encapsulation of bioactive ingredients to promote healthy and nutritional food products doi:10.1007/978-3-030-83570-5_4 Retrieved from www.scopus.com
- Cascado-Caballero, D., Diaz-del-Rio, F., Cagigas-Muñiz, D., Rios-Navarro, A., Guisado-Lizar, J. -., Pérez-Hurtado, I., & Riscos-Núñez, A. (2022). MAREX: A general purpose hardware architecture for membrane computing. *Information Sciences*, 584, 360-386. doi:10.1016/j.ins.2021.10.064
- Castilla, M. V., & Sánchez-Montaños, B. (2022). Semantic construction and form: Foundations of the communicative dimension in contemporary architecture. [Construcción semántica y forma: Fundamentos de la dimensión comunicativa en la Arquitectura Contemporánea] *Architecture, City and Environment*, 17(50) doi:10.5821/ace.17.50.11026
- Castillo-Seoane, J., Contreras-Bernal, L., Obrero-Perez, J. M., García-Casas, X., Lorenzo-Lázaro, F., Aparicio, F. J., . . . Sanchez-Valencia, J. R. (2022). Highly anisotropic organometal halide perovskite nanowalls grown by glancing-angle deposition. *Advanced Materials*, 34(18) doi:10.1002/adma.202107739
- Castro-García, J. A., Molina-Cantero, A. J., Gómez-González, I. M., Lafuente-Arroyo, S., & Merino-Monge, M. (2022). Towards human stress and activity recognition: A review and a first approach based on low-cost wearables. *Electronics (Switzerland)*, 11(1) doi:10.3390/electronics11010155
- Cermeño, M., Bascón, C., Amigo-Benavent, M., Felix, M., & FitzGerald, R. J. (2022). Identification of peptides from edible silkworm pupae (*bombyx mori*) protein hydrolysates with antioxidant activity. *Journal of Functional Foods*, 92 doi:10.1016/j.jff.2022.105052
- Christou, E., Pearson, J. R., Beltrán, A. M., Fernández-Afonso, Y., Gutiérrez, L., de la Fuente, J. M., . . . Caro, C. (2022). Iron–Gold nanoflowers: A promising tool for multimodal imaging and hyperthermia therapy. *Pharmaceutics*, 14(3) doi:10.3390/pharmaceutics14030636
- Cintra, W., Molina-Becerra, M., & Suárez, A. (2022). THE LOTKA-VOLTERRA MODELS WITH NON-LOCAL REACTION TERMS. *Communications on Pure and Applied Analysis*, 21(11), 3865-3886. doi:10.3934/cpaa.2022125
- Cornetti, P., Muñoz-Reja, M., & Mantič, V. (2022). Cohesive crack models and finite fracture mechanics analytical solutions for FRP-concrete single-lap shear test: An overview. *Theoretical and Applied Fracture Mechanics*, 122 doi:10.1016/j.tafmec.2022.103529
- Cortés, L. G., Barbancho, J., Larios, D. F., Marin-Batista, J. D., Mohedano, A. F., Portilla, C., & de la Rubia, M. A. (2022). Full-scale digesters: An online model parameter identification strategy. *Energies*, 15(20) doi:10.3390/en15207685
- Cortés, L. G., Barbancho, J., Larios, D. F., Marin-Batista, J. D., Mohedano, A. F., Portilla, C., & de la Rubia, M. A. (2022). Full-scale digesters: Model predictive control with online kinetic parameter identification strategy. *Energies*, 15(22) doi:10.3390/en15228594
- Cruz-Romero, P., Gomez-Exposito, A., & Del-Pino-Lopez, J. C. (2022). Characterizing the steady-state performance of AC lines through a dimensionless universal model. *IEEE Access*, 10, 40609-40619. doi:10.1109/ACCESS.2022.3166900
- de Ulloa, J. L., González, J. E., Beltrán, A. M., Avés, E. P., Rodríguez-Guerra, J., & Torres, Y. (2022). Biomechanical behavior of customized scaffolds: A three-dimensional finite element analysis. *Materials and Design*, 223 doi:10.1016/j.matdes.2022.111173
- Delgado, A., Casares, P. A. M., Dos Reis, R., Zini, M. S., Campos, R., Cruz-Hernández, N., . . . Arrazola, J. M. (2022). Simulating key properties of lithium-ion batteries with a fault-tolerant quantum computer. *Physical Review A*, 106(3) doi:10.1103/PhysRevA.106.032428
- Delgado-Lozano, I. M., Tena-Sanchez, E., Nunez, J., & Acosta, A. J. (2022). Gate-level design methodology for side-channel resistant logic styles using TFETs. *IEEE Embedded Systems Letters*, 14(2), 99-102. doi:10.1109/LES.2021.3122395

- Delgado-Sánchez, J. M., & Lillo-Bravo, I. (2022). High vapor transport deposition: A novel process to develop Cu₂ZnSn(S_xSe_{1-x})₄ thin film solar cells. *Solar RRL*, 6(2) doi:10.1002/solr.202100835
- Delgado-Sánchez, J. -., Lillo-Bravo, I., López-Álvarez, J. A., & Pérez-Aparicio, E. (2022). Zn(O,S) buffer layer deposited by high vapor transport deposition for controlling band alignment of Cu₂ZnSn(S_xSe_{1-x})₄ thin-film solar cell heterojunction. *Solar RRL*, 6(12) doi:10.1002/solr.202200818
- Del-Pino-López, J. C., & Cruz-Romero, P. (2022). Experimental validation of ultra-shortened 3D finite element models for frequency-domain analyses of three-core armored cables. *IEEE Transactions on Power Delivery*, 37(6), 4766-4774. doi:10.1109/TPWRD.2022.3158870
- del-Pino-López, J. C., & Cruz-Romero, P. (2022). Experimental validation of ultra-shortened 3D finite element electromagnetic modeling of three-core armored cables at power frequency. *Electric Power Systems Research*, 203 doi:10.1016/j.epsr.2021.107665
- del-Pino-López, J. C., Cruz-Romero, P., & Bravo-Rodríguez, J. C. (2022). Evaluation of the power frequency magnetic field generated by three-core armored cables through 3D finite element simulations. *Electric Power Systems Research*, 213 doi:10.1016/j.epsr.2022.108701
- Díaz-del-Rio, F., Cagigas-Muñiz, D., Guisado-Lizar, J. L., & Sevillano-Ramos, J. L. (2022). Efficient parallel implementation of cellular automata and stencil computations in current processors doi:10.1007/978-3-030-87049-2_4 Retrieved from www.scopus.com
- Díaz-del-Rio, F., Sanchez-Cuevas, P., Iñigo-Blasco, P., & Sevillano-Ramos, J. L. (2022). Improving tracking of trajectories through tracking rate regulation: Application to UAVs. *Sensors*, 22(24) doi:10.3390/s22249795
- Díaz-García, Á., Law, J. Y., Felix, M., Guerrero, A., & Franco, V. (2022). Functional, thermal and rheological properties of polymer-based magnetic composite filaments for additive manufacturing. *Materials and Design*, 219 doi:10.1016/j.matdes.2022.110806
- Dominguez-Cid, S., Ropero, J., Barbancho, J., Lora, P., Cortes, J., & Leon, C. (2022). Cyber-physical system for predictive maintenance in HVAC installations in hotels. Paper presented at the *International Conference on Electrical, Computer, and Energy Technologies, ICECET 2022*, doi:10.1109/ICECET55527.2022.9873029 Retrieved from www.scopus.com
- Dorronzoro-Zubiete, E., Rivera-Romero, O., Nuñez-Benjumea, F. J., & Cervera-Torres, S. (2022). Digital coaching for personalized healthcare of cardiovascular diseases. *Personalized health systems for cardiovascular disease* (pp. 205-227) doi:10.1016/B978-0-12-818950-4.00013-6 Retrieved from www.scopus.com
- Dorronzoro-Zubiete, E., Rivera-Romero, O., Sevillano, J. L., & Giunti, G. (2022). Smart home applications for cognitive health of older adults. *Smart home technologies and services for geriatric rehabilitation* (pp. 123-140) doi:10.1016/B978-0-323-85173-2.00007-2 Retrieved from www.scopus.com
- Duran, H., Cuevas-Maraver, J., Kevrekidis, P. G., & Vainchtein, A. (2022). Moving discrete breathers in a β -FPU lattice revisited. *Communications in Nonlinear Science and Numerical Simulation*, 111 doi:10.1016/j.cnsns.2022.106435
- Ege, D., Nawaz, Q., Beltrán, A. M., & Boccaccini, A. R. (2022). Effect of boron-doped mesoporous bioactive glass nanoparticles on C2C12 cell viability and differentiation: Potential for muscle tissue application. *ACS Biomaterials Science and Engineering*, 8(12), 5273-5283. doi:10.1021/acsbiomaterials.2c00876
- Felix, M., Guerrero, A., & Carrera-Sánchez, C. (2022). Optimization of multiple W1/O/W2 emulsions processing for suitable stability and encapsulation efficiency. *Foods*, 11(9) doi:10.3390/foods11091367
- Fernández, J. R., Gallego, I., & Jiménez-Losada, A. (2022). The power of an elector in the spanish parliament: A study compared with power indices. *Asian Journal of Comparative Politics*, 7(4), 1210-1231. doi:10.1177/20578911221076342
- Ferreira, M. K. M., Souza-Monteiro, D., Bittencourt, L. O., Matos-Sousa, J. M., Chemelo, V. S., Santos, V. R. N., . . . Lima, R. R. (2022). Fluoride exposure during intrauterine and lactation periods promotes changes in the offspring rats' alveolar bone. *Chemosphere*, 307 doi:10.1016/j.chemosphere.2022.136053

- García De Bollullos, F. J., & González, H. (2022). Assessing one-dimensional models for axisymmetric liquid columns through analysis of drop oscillations. *Physical Review E*, 106(4) doi:10.1103/PhysRevE.106.045105
- Garcia, J., Felix, M., Cordobés, F., & Guerrero, A. (2022). Effect of solvent and additives on the electrospinnability of BSA solutions. *Colloids and Surfaces B: Biointerfaces*, 217 doi:10.1016/j.colsurfb.2022.112683
- García, S., Gallardo, A., Larios, D. F., Personal, E., Mora-Merchán, J. M., & Parejo, A. (2022). Remote lab access: A powerful tool beyond the pandemic. Paper presented at the 15th International Conference of Technology, Learning and Teaching of Electronics, TAAE 2022 - Proceedings, doi:10.1109/TAAE54169.2022.9840672 Retrieved from www.scopus.com
- García, S., Parejo, A., León, C., & Luque, J. (2022). Teaching electronics to chemical engineers: The pandemic opportunity. Paper presented at the 15th International Conference of Technology, Learning and Teaching of Electronics, TAAE 2022 - Proceedings, doi:10.1109/TAAE54169.2022.9840566 Retrieved from www.scopus.com
- García, S., Parejo, A., Personal, E., Mora-Merchán, J. M., Luque, J., & León, C. (2022). An online modbus device simulator for remote teaching scenarios. Paper presented at the 15th International Conference of Technology, Learning and Teaching of Electronics, TAAE 2022 - Proceedings, doi:10.1109/TAAE54169.2022.9840732 Retrieved from www.scopus.com
- García-Casas, X., Ghaffarinehad, A., Aparicio, F. J., Castillo-Seoane, J., López-Santos, C., Espinós, J. P., . . . Borrás, A. (2022). Plasma engineering of microstructured piezo – triboelectric hybrid nanogenerators for wide bandwidth vibration energy harvesting. *Nano Energy*, 91 doi:10.1016/j.nanoen.2021.106673
- Garcia-Valenzuela, A., Alcaide, A. M., Rico, V., Ferrer, F. J., Alcala, G., Rojas, T. C., . . . Palmero, A. (2022). Compositional gradients at the nanoscale in substoichiometric thin films deposited by magnetron sputtering at oblique angles: A case study on SiO_x thin films. *Plasma Processes and Polymers*, 19(1) doi:10.1002/ppap.202100116
- Gil-González, E., Pérez-Maqueda, L. A., Sánchez-Jiménez, P. E., & Perejón, A. (2022). Flash sintering research perspective: A bibliometric analysis. *Materials*, 15(2) doi:10.3390/ma15020416
- Gómez-González, I. M., Juan-Chico, J., Castro-García, J. A., Merino-Monge, M., & Molina-Cantero, A. J. (2022). A methodological proposal for the digital electronics subject laboratory. Paper presented at the 15th International Conference of Technology, Learning and Teaching of Electronics, TAAE 2022 - Proceedings, doi:10.1109/TAAE54169.2022.9840720 Retrieved from www.scopus.com
- Gómez-Jemes, L., Oprescu, A. M., Chimenea-Toscano, Á., García-Díaz, L., & Romero-Ternero, M. D. C. (2022). Machine learning to predict pre-eclampsia and intrauterine growth restriction in pregnant women. *Electronics (Switzerland)*, 11(19) doi:10.3390/electronics11193240
- Gómez-Regalado, M. D. C., Martín-Pozo, L., Martín, J., Santos, J. L., Aparicio, I., Alonso, E., & Zafra-Gómez, A. (2022). An overview of analytical methods to determine pharmaceutical active compounds in aquatic organisms. *Molecules*, 27(21) doi:10.3390/molecules27217569
- González-Cagigal, M. Á., Rosendo-Macías, J. A., Bachiller-Soler, A., & Señas-Sanvicente, D. (2022). Influence of the wind variability on the calculation of dynamic line rating. *Electric Power Systems Research*, 211 doi:10.1016/j.epsr.2022.108234
- Guerra, J. A., Guerrero, J. I., Gallardo, A., Larios, D. F., & León, C. (2022). Performance of raspberry pi during blockchain execution using proof of authority consensus. Paper presented at the International Conference on Enterprise Information Systems, ICEIS - Proceedings, , 1 287-292. doi:10.5220/0011119300003179 Retrieved from www.scopus.com
- Guerra, J. A., Guerrero, J. I., García, S., Domínguez-Cid, S., Larios, D. F., & León, C. (2022). Design and evaluation of a heterogeneous lightweight blockchain-based marketplace. *Sensors*, 22(3) doi:10.3390/s22031131

- Guerrero, J. I., Miró-Amarante, G., & Martín, A. (2022). Decision support system in health care building design based on case-based reasoning and reinforcement learning. *Expert Systems with Applications*, 187 doi:10.1016/j.eswa.2021.116037
- Gutierrez-Galan, D., Bartolozzi, C., Dominguez-Morales, J. P., Jimenez-Fernandez, A., & Linares-Barranco, A. (2022). Towards the neuromorphic implementation of the auditory perception in the iCub robotic platform. Paper presented at the *ACM International Conference Proceeding Series*, 11-12. doi:10.1145/3517343.3517347 Retrieved from www.scopus.com
- Gutierrez-Galan, D., Schoepe, T., Dominguez-Morales, J. P., Jimenez-Fernandez, A., Chicca, E., & Linares-Barranco, A. (2022). An event-based digital time difference encoder model implementation for neuromorphic systems. *IEEE Transactions on Neural Networks and Learning Systems*, 33(5), 1959-1973. doi:10.1109/TNNLS.2021.3108047
- Gutierrez-Parera, P., Lopez, J. J., Mora-Merchan, J. M., & Larios, D. F. (2022). Interaural time difference individualization in HRTF by scaling through anthropometric parameters. *Eurasip Journal on Audio, Speech, and Music Processing*, 2022(1) doi:10.1186/s13636-022-00241-y
- Haciosmanoğlu, G. G., Mejías, C., Martín, J., Santos, J. L., Aparicio, I., & Alonso, E. (2022). Antibiotic adsorption by natural and modified clay minerals as designer adsorbents for wastewater treatment: A comprehensive review. *Journal of Environmental Management*, 317 doi:10.1016/j.jenvman.2022.115397
- Hennig, D., Karachalios, N. I., & Cuevas-Maraver, J. (2022). The closeness of localized structures between the ablowitz-ladik lattice and discrete nonlinear schrödinger equations: Generalized AL and DNLS systems. *Journal of Mathematical Physics*, 63(4) doi:10.1063/5.0072391
- Hennig, D., Karachalios, N. I., & Cuevas-Maraver, J. (2022). The closeness of the ablowitz-ladik lattice to the discrete nonlinear schrödinger equation. *Journal of Differential Equations*, 316, 346-363. doi:10.1016/j.jde.2022.01.050
- Hortigon, B., Ancio, F., & Rodriguez-Mayorga, E. (2022). Parameterization of stainless steel rebars to improve bonding strength in masonry repairing doi:10.1007/978-3-030-90788-4_14 Retrieved from www.scopus.com
- Jiménez-Fernández, C. J., Oliva, C. B., Fernández, P. P., Barrero, M. V., Ordóñez, F. E. P., Sánchez, E. T., & Soto, A. G. (2022). Teaching based on proposed by students designs: A case study. Paper presented at the *15th International Conference of Technology, Learning and Teaching of Electronics, TAEE 2022 - Proceedings*, doi:10.1109/TAEE54169.2022.9840588 Retrieved from www.scopus.com
- Jiménez-Rosado, M., Gomez-Zavaglia, A., Guerrero, A., & Romero, A. (2022). Green synthesis of ZnO nanoparticles using polyphenol extracts from pepper waste (*capsicum annuum*). *Journal of Cleaner Production*, 350 doi:10.1016/j.jclepro.2022.131541
- Jiménez-Rosado, M., Maigret, J. -., Lourdin, D., Guerrero, A., & Romero, A. (2022). Injection molding versus extrusion in the manufacturing of soy protein-based bioplastics with zinc incorporated. *Journal of Applied Polymer Science*, 139(7) doi:10.1002/app.51630
- Jiménez-Rosado, M., Maigret, J. -., Perez-Puyana, V., Romero, A., & Lourdin, D. (2022). Revaluation of a soy protein by-product in eco-friendly bioplastics by extrusion. *Journal of Polymers and the Environment*, 30(4), 1587-1599. doi:10.1007/s10924-021-02303-2
- Jiménez-Rosado, M., Perez-Puyana, V., Guerrero, A., & Romero, A. (2022). Micronutrient-controlled-release protein-based systems for horticulture: Micro vs. nanoparticles. *Industrial Crops and Products*, 185 doi:10.1016/j.indcrop.2022.115128
- Kevrekidis, G. A., Rapti, Z., Drossinos, Y., Kevrekidis, P. G., Barmann, M. A., Chen, Q. Y., & Cuevas-Maraver, J. (2022). Backcasting COVID-19: A physics-informed estimate for early case incidence. *Royal Society Open Science*, 9(12) doi:10.1098/rsos.220329
- Lara-Moreno, A., Aguilar-Romero, I., Rubio-Bellido, M., Madrid, F., Villaverde, J., Santos, J. L., . . . Morillo, E. (2022). Novel nonylphenol-degrading bacterial strains isolated from sewage sludge: Application in bioremediation of sludge. *Science of the Total Environment*, 847 doi:10.1016/j.scitotenv.2022.157647

Linares-Barranco, A., Pinero-Fuentes, E., Canas-Moreno, S., Rios-Navarro, A., Maryada, Wu, C., . . . Indiveri, G. (2022). Towards hardware implementation of WTA for CPG-based control of a spiking robotic arm. Paper presented at the *Proceedings - IEEE International Symposium on Circuits and Systems*, , 2022-May 1057-1061. doi:10.1109/ISCAS48785.2022.9937845 Retrieved from www.scopus.com

Lloreda-Jurado, P. J., Perez-Puyana, V., Romero, A., & Sepúlveda, R. (2022). Influences of the solid load on the microstructure and compressive behavior of Fe2O3 scaffolds manufactured by freeze-casting using stearic acid as dispersant agent. *Journal of the European Ceramic Society*, 42(1), 193-201. doi:10.1016/j.jeurceramsoc.2021.09.056

López-Castejón, M. L., Reviriego, M. L., Álvarez-Castillo, E., Aguilar, J. M., & Bengoechea, C. (2022). Eco-composites from silkworm meal and polycaprolactone: Effect of formulation and processing conditions. *Polymers*, 14(12) doi:10.3390/polym14122342

Luque, A., Mazzoleni, M., Carrasco, A., & Ferramosca, A. (2022). Visualizing classification results: Confusion star and confusion gear. *IEEE Access*, 10, 1659-1677. doi:10.1109/ACCESS.2021.3137630

Makowska, K., Martín, J., Rychlik, A., Aparicio, I., Santos, J. L., Alonso, E., & Gonkowski, S. (2022). Biomonitoring parabens in dogs using fur sample analysis – preliminary studies. *Science of the Total Environment*, 807 doi:10.1016/j.scitotenv.2021.150757

Makowska, K., Martín, J., Rychlik, A., Aparicio, I., Santos, J. L., Alonso, E., & Gonkowski, S. (2022). Hair sample analysis as a method of monitoring exposure to bisphenol A in dogs. *International Journal of Environmental Research and Public Health*, 19(8) doi:10.3390/ijerph19084600

Malvar, J. L., Santos, J. L., Martín, J., Aparicio, I., Fonseca, T. G., Bebianno, M. J., & Alonso, E. (2022). Ultrasound-assisted extraction as an easy-to-perform analytical methodology for monitoring ibuprofen and its main metabolites in mussels. *Analytical and Bioanalytical Chemistry*, 414(19), 5877-5886. doi:10.1007/s00216-022-04153-w

Marín, D. F. L., Vázquez, E. P., Montes, A. M., Concejero, J. B., Fernández De Cañete, F. J., & Luque, J. (2022). Pandemic evolution in basic control courses for undergraduate engineering students. Paper presented at the *15th International Conference of Technology, Learning and Teaching of Electronics, TAEE 2022 - Proceedings*, doi:10.1109/TAEE54169.2022.9840699 Retrieved from www.scopus.com

Marrero, M., Rivero-Camacho, C., Martínez-Rocamora, A., Alba-Rodríguez, M. D., & Solís-Guzmán, J. (2022). Life cycle assessment of industrial building construction and recovery potential. case studies in seville. *Processes*, 10(1) doi:10.3390/pr10010076

Martín, D., Bocio-Nuñez, J., Scagliusi, S. F., Pérez, P., Huertas, G., Yúfera, A., . . . Daza, P. (2022). DC electrical stimulation enhances proliferation and differentiation on N2a and MC3T3 cell lines. *Journal of Biological Engineering*, 16(1) doi:10.1186/s13036-022-00306-8

Martín, J., Mejías, C., Arenas, M., Santos, J. L., Aparicio, I., & Alonso, E. (2022). Occurrence of linear alkylbenzene sulfonates, nonylphenol ethoxylates and di(2-ethylhexyl)phthalate in composting processes: Environmental risks. *Sustainability (Switzerland)*, 14(1) doi:10.3390/su14010186

Martín, J., Santos, J. L., Aparicio, I., & Alonso, E. (2022). Microplastics and associated emerging contaminants in the environment: Analysis, sorption mechanisms and effects of co-exposure. *Trends in Environmental Analytical Chemistry*, 35 doi:10.1016/j.teac.2022.e00170

Martínez, A. R. (2022). The deuteration of organic compounds as a tool to teach chemistry. [La deuteración de compuestos orgánicos como herramienta para la enseñanza de la química] *Educacion Quimica*, 33(3), 178-186. doi:10.22201/fq.18708404e.2022.3.81491

Martínez-Ros, A. J., & Fernandez-Prieto, A. (2022). Passive planar microwave devices. *Applied Sciences (Switzerland)*, 12(9) doi:10.3390/app12094444

Mejías, C., Arenas, M., Martín, J., Santos, J. L., Aparicio, I., & Alonso, E. (2022). A systematic review on distribution and ecological risk assessment for chiral pharmaceuticals in environmental compartments. *Reviews of Environmental Contamination and Toxicology*, 260(1) doi:10.1007/s44169-021-00003-5

Mejías, C., Martín, J., Santos, J. L., Aparicio, I., Sánchez, M. I., & Alonso, E. (2022). Development and validation of a highly effective analytical method for the evaluation of the exposure of migratory birds to antibiotics and their metabolites by faeces analysis. *Analytical and Bioanalytical Chemistry*, 414(11), 3373-3386. doi:10.1007/s00216-022-03953-4

Menéndez-Proupin, E., Grover, S., Montero-Alejo, A. L., Midgley, S. D., Butler, K. T., & Grau-Crespo, R. (2022). Mixed-anion mixed-cation perovskite (FAPbI₃)_{0.875}(MAPbBr₃)_{0.125}: An ab initio molecular dynamics study. *Journal of Materials Chemistry A*, 10(17), 9592-9603. doi:10.1039/d1ta10860c

Molina-Molina, S., Gil-González, E., Durán-Olivencia, F. J., Valverde, J. M., Perejón, A., Sánchez-Jiménez, P. E., & Pérez-Maqueda, L. A. (2022). A novel Multi-Phase flash sintering (MPFS) technique for 3D complex-shaped ceramics. *Applied Materials Today*, 26 doi:10.1016/j.apmt.2021.101274

Molinillo, P., Lacroix, B., Vattier, F., Rendón, N., Suárez, A., & Lara, P. (2022). Reduction of N₂O with hydrosilanes catalysed by RuSNS nanoparticles. *Chemical Communications*, 58(51), 7176-7179. doi:10.1039/d2cc01470j

Monedero, I. (2022). A novel ECG diagnostic system for the detection of 13 different diseases. *Engineering Applications of Artificial Intelligence*, 107 doi:10.1016/j.engappai.2021.104536

Montanha, A., Oprescu, A. M., & Romero-Ternero, M. (2022). A context-aware artificial intelligence-based system to support street crossings for pedestrians with visual impairments. *Applied Artificial Intelligence*, 36(1) doi:10.1080/08839514.2022.2062818

Muñoz-Piña, S., Alcaide, A. M., Limones-Ahijón, B., Oliva-Ramírez, M., Rico, V., Alcalá, G., . . . Palmero, A. (2022). Thin film nanostructuring at oblique angles by substrate patterning. *Surface and Coatings Technology*, 436 doi:10.1016/j.surfcoat.2022.128293

Muñoz-Reja, M., Mantič, V., & Távara, L. (2022). Comparative analytical study of the coupled criterion and the principle of minimum total energy with stress condition applied to linear elastic interfaces. *Theoretical and Applied Fracture Mechanics*, 119 doi:10.1016/j.tafmec.2022.103274

Navarro, P., Olmo, A., Giner, M., Rodríguez-Albelo, M., Rodríguez, Á., & Torres, Y. (2022). Electrical impedance of surface modified porous titanium implants with femtosecond laser. *Materials*, 15(2) doi:10.3390/ma15020461

Nomura, K., Lotina, L., Rodríguez-Guzmán, R., & Robledo, L. M. (2022). Simultaneous description of β decay and low-lying structure of neutron-rich even- and odd-mass rh and pd nuclei. *Physical Review C*, 106(6) doi:10.1103/PhysRevC.106.064304

Núñez, J., Thomann, S., Amrouch, H., & Avedillo, M. J. (2022). Mitigating the impact of variability in NCFET-based coupled-oscillator networks applications. Paper presented at the ICECS 2022 - 29th IEEE International Conference on Electronics, Circuits and Systems, Proceedings, doi:10.1109/ICECS202256217.2022.9970771 Retrieved from www.scopus.com

Obrero-Perez, J. M., Contreras-Bernal, L., Nuñez-Galvez, F., Castillo-Seoane, J., Valadez-Villalobos, K., Aparicio, F. J., . . . Barranco, A. (2022). Ultrathin plasma polymer passivation of perovskite solar cells for improved stability and reproducibility. *Advanced Energy Materials*, 12(32) doi:10.1002/aenm.202200812

Oprescu, A. M., Miró-Amarante, G., García-Díaz, L., Rey, V. E., Chimenea-Toscano, A., Martínez-Martínez, R., & Romero-Ternero, M. C. (2022). Towards a data collection methodology for responsible artificial intelligence in health: A prospective and qualitative study in pregnancy. *Information Fusion*, 83-84, 53-78. doi:10.1016/j.inffus.2022.03.011

Palacios-Ibáñez, B., Relinque, J. J., Moreno-Sánchez, D., de León, A. S., Delgado, F. J., Escobar-Galindo, R., & Molina, S. I. (2022). Synthesis and characterisation of ASA-PEEK composites for fused filament fabrication. *Polymers*, 14(3) doi:10.3390/polym14030496

Palmero, F., Molina, M. I., Cuevas-Maraver, J., & Kevrekidis, P. G. (2022). Discrete embedded solitary waves and breathers in one-dimensional nonlinear lattices. *Physics Letters, Section A: General, Atomic and Solid State Physics*, 425 doi:10.1016/j.physleta.2021.127880

- Parejo, A., García, S., Larios, D. F., Gallardo, A., Luque, J., & León, C. (2022). Raspberry pi-based cluster network for the emulation of sensor networks in remote teaching. Paper presented at the *15th International Conference of Technology, Learning and Teaching of Electronics, TAAE 2022 - Proceedings*, doi:10.1109/TAAE54169.2022.9840573 Retrieved from www.scopus.com
- Parker, R., Aceves, A., Cuevas-Maraver, J., & Kevrekidis, P. G. (2022). Floquet solitons in square lattices: Existence, stability, and dynamics. *Physical Review E*, 105(4) doi:10.1103/PhysRevE.105.044211
- Parker, R., Cuevas-Maraver, J., Kevrekidis, P. G., & Aceves, A. (2022). Revisiting multi-breathers in the discrete klein-gordon equation: A spatial dynamics approach. *Nonlinearity*, 35(11), 5714-5748. doi:10.1088/1361-6544/ac8909
- Parody, L., Santos, J., Trujillo-Cayado, L. A., & Ceballos, M. (2022). Gamification in engineering education: The use of classcraft platform to improve motivation and academic performance. *Applied Sciences (Switzerland)*, 12(22) doi:10.3390/app122211832
- Peña, M., Biscarri, F., Personal, E., & León, C. (2022). Decision support system to classify and optimize the energy efficiency in smart buildings: A data analytics approach. *Sensors*, 22(4) doi:10.3390/s22041380
- Perea-Brenes, A., Gómez-Ramírez, A., López-Santos, C., Oliva-Ramírez, M., Molina, R., Cotrino, J., . . . González-Elipe, A. R. (2022). Comparative analysis of the germination of barley seeds subjected to drying, hydrogen peroxide, or oxidative air plasma treatments. *Plasma Processes and Polymers*, 19(9) doi:10.1002/ppap.202200035
- Pérez-Aranda, M., Pajuelo, E., Navarro-Torre, S., Pérez-Palacios, P., Begines, B., Rodríguez-Llorente, I. D., . . . Alcudia, A. (2022). Antimicrobial and antibiofilm effect of 4,4'-dihydroxy-azobenzene against clinically resistant staphylococci. *Antibiotics*, 11(12) doi:10.3390/antibiotics11121800
- Perez-Puyana, V., Cuartero, P., Jiménez-Rosado, M., Martínez, I., & Romero, A. (2022). Physical crosslinking of pea protein-based bioplastics: Effect of heat and UV treatments. *Food Packaging and Shelf Life*, 32 doi:10.1016/j.fpsl.2022.100836
- Perez-Puyana, V., Jiménez-Rosado, M., Escribano, D., Romero, A., & Martínez, I. (2022). Influence of the aliphatic chain length on the crosslinking properties of aldehydes on sustainable bioplastics obtained from pea protein. *Journal of Polymers and the Environment*, 30(12), 5163-5172. doi:10.1007/s10924-022-02571-6
- Peris Pérez, B., Ávila Gutiérrez, M., Expósito Carrillo, J. A., & Salmerón Lissén, J. M. (2022). Performance of solar-driven ejector refrigeration system (SERS) as pre-cooling system for air handling units in warm climates. *Energy*, 238 doi:10.1016/j.energy.2021.121647
- Pinero-Fuentes, E., Canas-Moreno, S., Rios-Navarro, A., Cascado-Caballero, D., Jimenez-Fernandez, A., & Linares-Barranco, A. (2022). An MPSoC-based on-line edge infrastructure for embedded neuromorphic robotic controllers. Paper presented at the *Proceedings - IEEE International Symposium on Circuits and Systems*, , 2022-May 2343-2347. doi:10.1109/ISCAS48785.2022.9937750 Retrieved from www.scopus.com
- Potestad-Ordóñez, F. E., Jiménez-Fernández, C. J., Gallardo-Soto, A., Valencia-Barrero, M., Baena-Oliva, C., Parra-Fernández, P., & Tena-Sánchez, E. (2022). ICs tester design and its effect on application in electronics laboratories. Paper presented at the *15th International Conference of Technology, Learning and Teaching of Electronics, TAAE 2022 - Proceedings*, doi:10.1109/TAAE54169.2022.9840565 Retrieved from www.scopus.com
- Potestad-Ordonez, F. E., Tena-Sanchez, E., Acosta-Jimenez, A. J., Jimenez-Fernandez, C. J., & Chaves, R. (2022). Design and evaluation of countermeasures against fault injection attacks and power side-channel leakage exploration for AES block cipher. *IEEE Access*, 10, 65548-65561. doi:10.1109/ACCESS.2022.3183764
- Potestad-Ordóñez, F. E., Tena-Sánchez, E., Acosta-Jiménez, A. J., Jiménez-Fernández, C. J., & Chaves, R. (2022). Hardware countermeasures benchmarking against fault attacks. *Applied Sciences (Switzerland)*, 12(5) doi:10.3390/app12052443
- Rabán, P., Alvarez-Nodarse, R., & Quintero, N. R. (2022). Stability of solitary waves in nonlinear klein-gordon equations. *Journal of Physics A: Mathematical and Theoretical*, 55(46) doi:10.1088/1751-8121/aca0d1

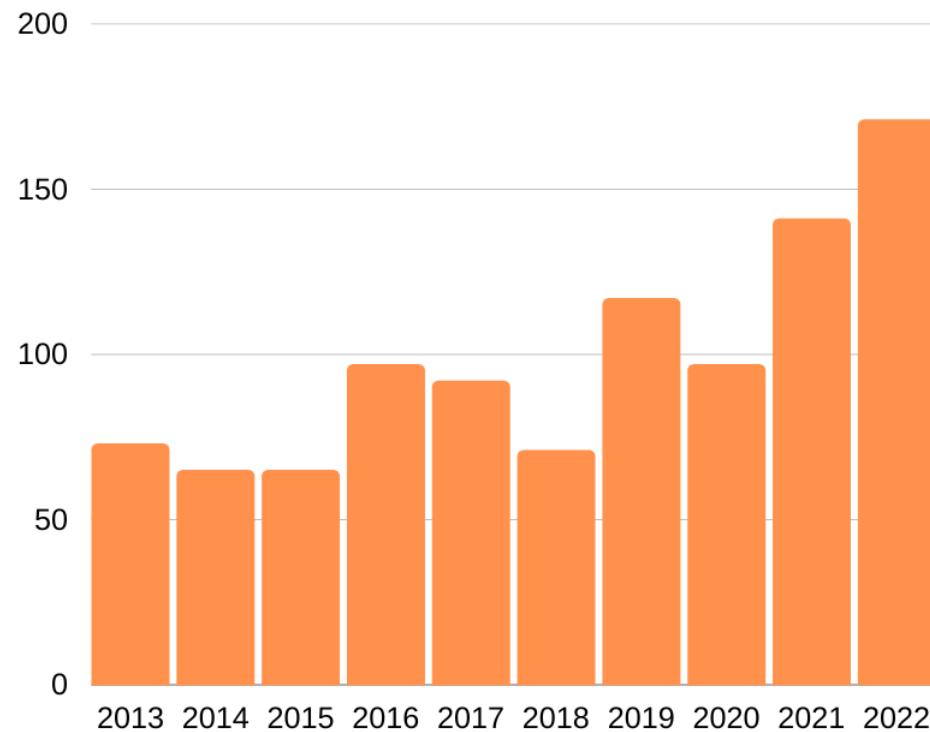
- Ramos, T., Córdoba, A., Luque, A., & de las Heras, A. (2022). Total design in the design and development process of a remotely operated vehicle (ROV) with particular consideration of sensorization. *Sensors*, 22(9) doi:10.3390/s22093284
- Rinaudo, M. G., Beltrán, A. M., Fernández, A., Cadús, L. E., & Morales, M. R. (2022). Pd supported on defective TiO₂ polymorphic mixtures: Effect of metal-support interactions upon glycerol selective oxidation. *Results in Engineering*, 16 doi:10.1016/j.rineng.2022.100737
- Rivera-Romero, O., Gabarron, E., Miron-Shatz, T., Petersen, C., & Denecke, K. (2022). Social media, digital health literacy, and digital ethics in the light of health equity. *Yearbook of Medical Informatics*, 31(1), 82-87. doi:10.1055/s-0042-1742503
- Rodríguez, A., Barroso, P., Olmo, A., & Yúfera, A. (2022). Bioimpedance sensing of implanted stent occlusions: Smart stent. *Biosensors*, 12(6) doi:10.3390/bios12060416
- Rodríguez-Guzmán, R., & Robledo, L. M. (2022). Role of dynamic pairing correlations in fission dynamics. II. fermium and nobelium isotopes. *Physical Review C*, 106(2) doi:10.1103/PhysRevC.106.024335
- Rodríguez-Guzmán, R., Robledo, L. M., Nomura, K., & Hernandez, N. C. (2022). Quadrupole-octupole collectivity in the xe, ba, ce and nd isotopic chains described with mean field and beyond approaches. *Journal of Physics G: Nuclear and Particle Physics*, 49(1) doi:10.1088/1361-6471/ac3472
- Romero-Muñiz, C., Vilhena, J. G., Pérez, R., Cuevas, J. C., & Zotti, L. A. (2022). Recent advances in understanding the electron transport through metal-azurin-metal junctions. *Frontiers in Physics*, 10 doi:10.3389/fphy.2022.950929
- Romero-Muñiz, I., Romero-Muñiz, C., Del Castillo-Velilla, I., Marini, C., Calero, S., Zamora, F., & Platero-Prats, A. E. (2022). Revisiting vibrational spectroscopy to tackle the chemistry of Zr₆O₈Metal-organic framework nodes. *ACS Applied Materials and Interfaces*, 14(23), 27040-27047. doi:10.1021/acsami.2c04712
- Romero-Ternero, M. C., García-Robles, R., Cagigas-Muñiz, D., Rivera-Romero, O., & Romero-Ternero, M. J. (2022). Participant observation to apply an empirical method of codesign with children. *Advances in Human-Computer Interaction*, 2022 doi:10.1155/2022/1101847
- Rosales Martínez, A., Rodríguez-García, I., & López-Martínez, J. L. (2022). Green reductive regioselective opening of epoxides: A green chemistry laboratory experiment. *Journal of Chemical Education*, 99(7), 2710-2714. doi:10.1021/acs.jchemed.2c00409
- Ruiz-Pérez, M. R., Alba-Rodríguez, M. D., & Marrero, M. (2022). Evaluation of water footprint of urban renewal projects. case study in seville, andalusia. *Water Research*, 221 doi:10.1016/j.watres.2022.118715
- Ruiz-Pérez, M. R., Rivero-Camacho, C., Alba-Rodríguez, M. a., & Marrero, M. (2022). *Evaluation of carbon footprint of the renovation of urban spaces* doi:10.1007/978-981-19-7226-3_4 Retrieved from www.scopus.com
- Sanchez, A., García, M. C., Martín-Piñero, M. J., Muñoz, J., & Alfaro-Rodríguez, M. -. (2022). Elaboration and characterization of nanoemulsion with orange essential oil and pectin. *Journal of the Science of Food and Agriculture*, 102(9), 3543-3550. doi:10.1002/jsfa.11698
- Sánchez-Borrego, F. -. , García-Criado, N., García-Martín, J. F., & Álvarez-Mateos, P. (2022). Determination of the composition of bio-oils from the pyrolysis of orange waste and orange pruning and use of biochars for the removal of sulphur from waste cooking oils. *Agronomy*, 12(2) doi:10.3390/agronomy12020309
- Sánchez-Cid, P., Jiménez-Rosado, M., Romero, A., & Pérez-Puyana, V. (2022). Novel trends in hydrogel development for biomedical applications: A review. *Polymers*, 14(15) doi:10.3390/polym14153023
- Sánchez-Cid, P., Jiménez-Rosado, M., Rubio-Valle, J. F., Romero, A., Ostos, F. J., Benhnia, R. - . -, & Perez-Puyana, V. (2022). Biocompatible and thermoresistant hydrogels based on collagen and chitosan. *Polymers*, 14(2) doi:10.3390/polym14020272

- Sánchez-Cid, P., Rubio-Valle, J. F., Jiménez-Rosado, M., Pérez-Puyana, V., & Romero, A. (2022). Effect of solution properties in the development of cellulose derivative nanostructures processed via electrospinning. *Polymers*, 14(4) doi:10.3390/polym14040665
- Sanchez-Cuevas, P., Real, P., Díaz-del-Río, F., Molina-Abril, H., & Moron-Fernández, M. J. (2022). On the Topological disparity characterization of Square-pixel binary image data by a Labeled bipartite graph doi:10.1007/978-3-031-04881-4_41 Retrieved from www.scopus.com
- Santana, I., Félix, M., Guerrero, A., & Bengoechea, C. (2022). Processing and characterization of bioplastics from the invasive seaweed *rugulopteryx okamurae*. *Polymers*, 14(2) doi:10.3390/polym14020355
- Santos, J., Trujillo-Cayado, L. A., Barquero, M., & Calero, N. (2022). Influence of type and concentration of biopolymer on β -carotene encapsulation efficiency in nanoemulsions based on linseed oil. *Polymers*, 14(21) doi:10.3390/polym14214640
- Santos, J., Trujillo-Cayado, L. A., Carrelo, H., Cidade, M. T., & Alfaro, M. -. (2022). Optimization of sonication parameters to obtain food emulsions stabilized by zein: Formation of zein-diutan gum/zein-guar gum complexes. *Journal of the Science of Food and Agriculture*, 102(5), 2127-2134. doi:10.1002/jsfa.11554
- Santos, J., Trujillo-Cayado, L. A., Carrillo, F., López-Castejón, M. L., & Alfaro-Rodríguez, M. C. (2022). Relation between droplet size distributions and physical stability for zein microfluidized emulsions. *Polymers*, 14(11) doi:10.3390/polym14112195
- Scrivano, S., Pliego, R., Gómez-Tubío, B., Moreno-Soto, J., García Vargas, E., Ángel Respaldiza, M., & Chaves Tristán, F. (2022). An approach to the metallic composition of the carthage mint coins from the tetrarchic hoard of tomares (CA. 312 CE). *Journal of Archaeological Science: Reports*, 44 doi:10.1016/j.jasrep.2022.103509
- Sena-Trujillo1, I., Ávila-Gutiérrez, M. -. , & Lama-Ruiz, J. -. (2022). DESIGN OF A SMART PACKAGING FOR SHERRY WINES THROUGH HOLONIC ENGINEERING. *Dyna (Spain)*, 97(5), 475-479. doi:10.6036/10486
- Signorelli, G. R., Monteiro-Guerra, F., Rivera-Romero, O., Núñez-Benjumea, F. J., & Fernández-Luque, L. (2022). Breast cancer physical activity mobile intervention: Early findings from a user experience and acceptability mixed methods study. *JMIR Formative Research*, 6(6) doi:10.2196/32354
- Soltero, V. M., Quirosa, G., Peralta, M. E., Chacartegui, R., & Torres, M. (2022). A biomass universal district heating model for sustainability evaluation for geographical areas with early experience. *Energy*, 242 doi:10.1016/j.energy.2021.122954
- Staron, A., Jiang, K., Scoggins, C., Wingert, D., Cubero, D., & Bali, S. (2022). Observation of stochastic resonance in directed propagation of cold atoms. *Physical Review Research*, 4(4) doi:10.1103/PhysRevResearch.4.043211
- Stefanov, A., Tsolias, G. A., Cuevas-Maraver, J., & Kevrekidis, P. G. (2022). Mixed dispersion nonlinear schrödinger equation in higher dimensions: Theoretical analysis and numerical computations. *Journal of Physics A: Mathematical and Theoretical*, 55(26) doi:10.1088/1751-8121/ac7019
- Tan, B., Reyes, A. M., Menéndez-Proupin, E., Reyes-Lillo, S. E., Li, Y., & Zhang, Z. (2022). Full-space potential gradient driven charge migration inside BiFeO₃ Photocathode. *ACS Energy Letters*, 7(10), 3492-3499. doi:10.1021/acsenergylett.2c01750
- Tena-Sánchez, E., Acosta, A. J., Potestad-Ordóñez, F. E., Jiménez-Fernández, C. J., & Chaves, R. (2022). Gate-level hardware countermeasure comparison against power analysis attacks. *Applied Sciences (Switzerland)*, 12(5) doi:10.3390/app12052390
- Tena-Sánchez, E., Potestad-Ordóñez, F. E., Guerrero-Alonso, J. I., Larios-Marín, D. F., & Luque-Rodríguez, J. (2022). Methodology and comparison of evaluation methods in electronic laboratories. Paper presented at the 15th International Conference of Technology, Learning and Teaching of Electronics, TAE 2022 - Proceedings, doi:10.1109/TAE54169.2022.9840662 Retrieved from www.scopus.com
- Van Diejen, J. F., Emsiz, E., & Zurrián, I. N. (2022). On the basic representation of the double affine hecke algebra at critical level. *Journal of Algebra and its Applications*, doi:10.1142/S0219498824500610

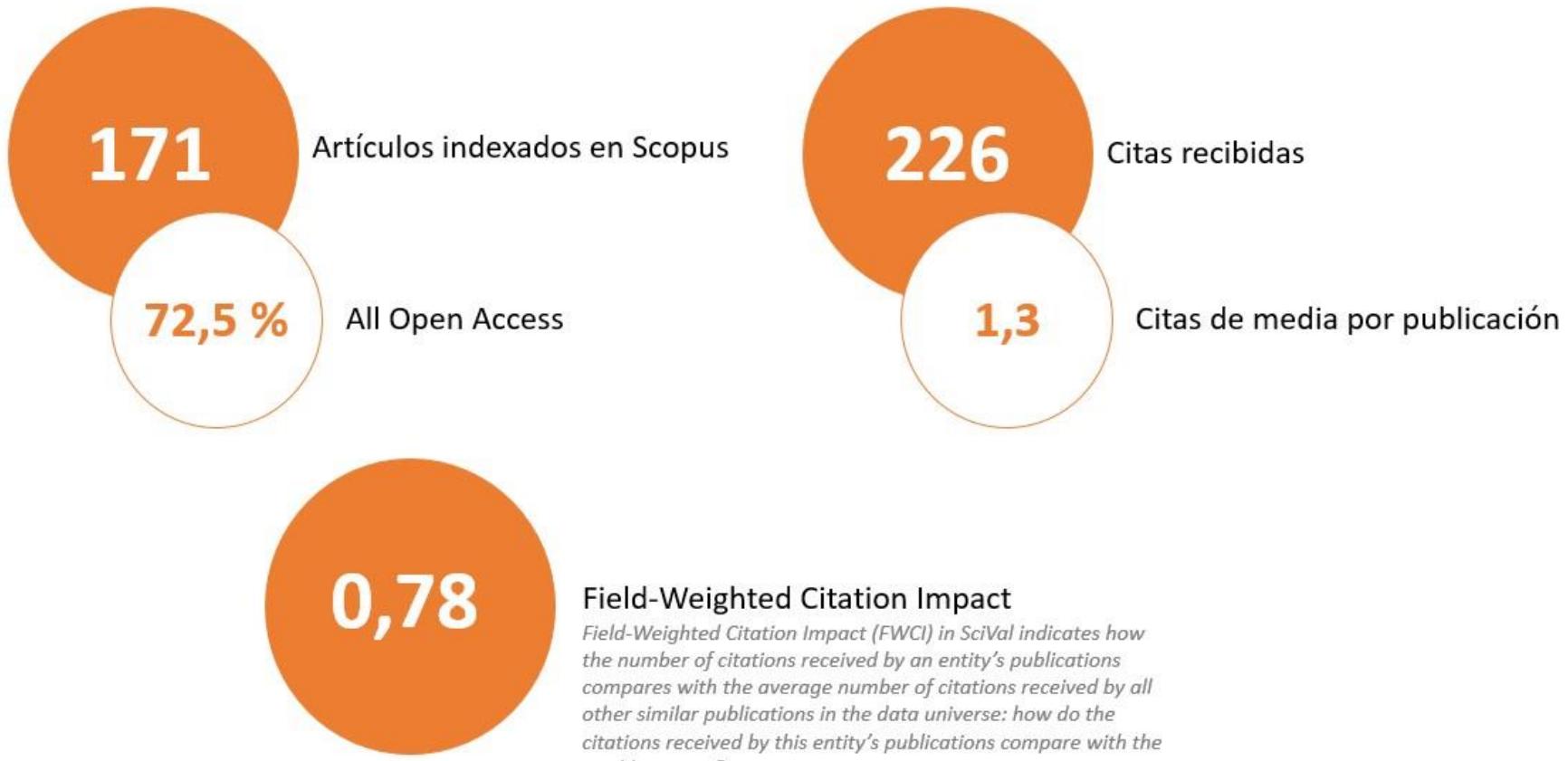
Viejo-Cortés, J., Ruiz-De-Clavijo-Vázquez, P., Ostúa-Arangüena, E., Cano-Quiveu, G., & Juan-Chico, J. (2022). Virtualization environment for IT labs development and assessment. Paper presented at the *15th International Conference of Technology, Learning and Teaching of Electronics, TAE 2022 - Proceedings*, doi:10.1109/TAE54169.2022.9840655 Retrieved from www.scopus.com

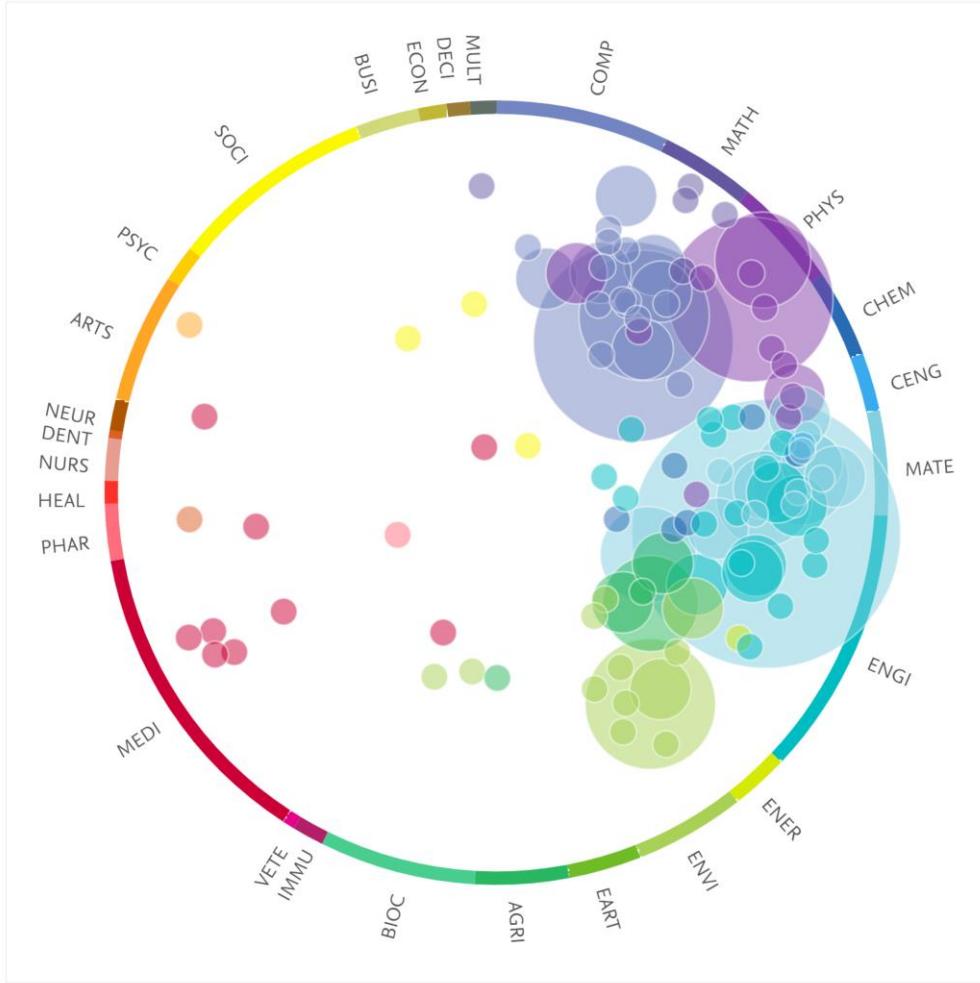
Zamora-Polo, F., & Sánchez-Martín, J. (2022). Including sustainable development goals (SDGs) transversally in education. *Sustainability (Switzerland)*, 14(17) doi:10.3390/su141710845

Artículos recogidos en las memorias de estos años.



ANÁLISIS DE LOS ARTÍCULOS 2022 (Datos extraídos de SCIVAL)

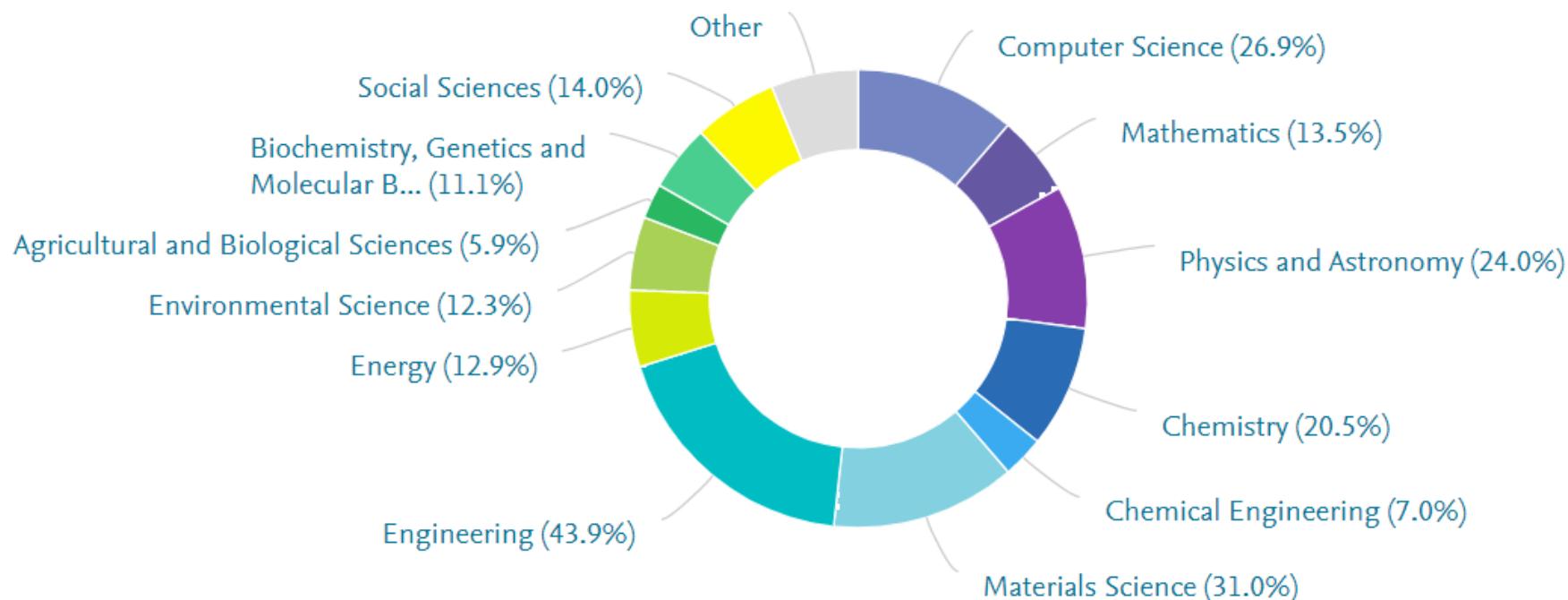




COMP	Computer Science
MATH	Mathematics
PHYS	Physics and Astronomy
CHEM	Chemistry
CENG	Chemical Engineering
MATE	Materials Science
ENGI	Engineering
ENER	Energy
ENVI	Environmental Science
EART	Earth and Planetary Sciences
AGRI	Agricultural and Biological Sciences
BIOC	Biochemistry, Genetics and Molecular Biology
IMMU	Immunology and Microbiology
VETE	Veterinary

MEDI	Medicine
PHAR	Pharmacology, Toxicology and Pharmaceutics
HEAL	Health Professions
NURS	Nursing
DENT	Dentistry
NEUR	Neuroscience
ARTS	Arts and Humanities
PSYC	Psychology
SOCI	Social Sciences
BUSI	Business, Management and Accounting
ECON	Economics, Econometrics and Finance
DECI	Decision Sciences
MULT	Multidisciplinary

MATERIAS



TOP 5 MOST CITED PUBLICATIONS

Publication	Citations	Field-Weighted Citation Impact
Identification of peptides from edible silkworm pupae (<i>Bombyx mori</i>) protein hydrolysates with antioxidant activity. Cermeño, M., Bascón, C., Amigo-Benavent, M. and 2 more (2022) <i>Journal of Functional Foods</i> , 92.	8	6.9
Influence of the plasticizer on rice bran-based eco-friendly bioplastics obtained by injection moulding. Alonso-González, M., Felix, M., Romero, A. (2022) <i>Industrial Crops and Products</i> , 180.	7	6.16
Green synthesis of ZnO nanoparticles using polyphenol extracts from pepper waste (<i>Capsicum annuum</i>). Jiménez-Rosado, M., Gomez-Zavaglia, A., Guerrero, A. and 1 more (2022) <i>Journal of Cleaner Production</i> , 350.	11	5.05
Performance of Solar-driven Ejector Refrigeration System (SERS) as pre-cooling system for air handling units in warm climates. Peris Pérez, B., Ávila Gutiérrez, M., Expósito Carrillo, J.A. and 1 more (2022) <i>Energy</i> , 238.	9	4.72
Flash Sintering Research Perspective: A Bibliometric Analysis. Gil-González, E., Pérez-Maqueda, L.A., Sánchez-Jiménez, P.E. and 1 more (2022) <i>Materials</i> , 15 (2).	7	4.3