

Fecha del CVA

03/12/2024

## Parte A. DATOS PERSONALES

Nombre	ANTONIO A.		
Apellidos	RODERO SERRANO		
Sexo	Hombre	Fecha de Nacimiento	
DNI/NIE/Pasaporte			
URL Web			
Dirección Email	fa1rosea@uco.es		
Open Researcher and Contributor ID (ORCID)	0000-0003-0152-620X		

### A.1. Situación profesional actual



Puesto	Catedrático de escuela universitaria		
Fecha inicio	1996		
Organismo / Institución	Universidad de Córdoba		
Departamento / Centro			
País	España	Teléfono	957574072
Palabras clave			

## Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

### C.1. Publicaciones más importantes en libros y revistas con “peer review” y conferencias

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

- Artículo científico.** Mateo-Calvo, Juan; Garcia-Martinez, M<sup>a</sup> Carmen; Rodero-Serrano, Antonio A.2023. Using laser-induced breakdown spectroscopy for the study of chloride diffusion in mortar and concrete. Construction and Building Materials. 385, pp.131520-1-131520-9. ISSN 0950-0618.
- Artículo científico.** Rodero-Serrano, Antonio A.2022. Experimental Study of a Rotating Electrode Plasma Reactor for Hydrogen Production from Liquid Petroleum Gas Conversion. Applied Sciences. 12, pp.4045-4067. ISSN 2076-3417.
- Artículo científico.** Rodero-Serrano, Antonio A.2022. Determination of Physicochemical Water Quality of the Ghis-Nekor Aquifer (Al Hoceima, Morocco) Using Hydrochemistry, Multiple Isotopic Tracers, and the Geographical Information System (GIS). Water. 14, pp.606-631. ISSN 2073-4441.
- Artículo científico.** Fernandez-Rodriguez, Jose Maria; A. Lozano-Lunar; Rodero-Serrano, Antonio A.2022. The Study of Soil Temperature Distribution for Very Low-Temperature Geothermal Energy Applications in Selected Locations of Temperate and Subtropical Climate. Energies. 15-9, pp.3345-3366. ISSN 1996-1073.
- Artículo científico.** Garcia-Martinez, M<sup>a</sup> Carmen; Yubero-Serrano, Cristina; Rodero-Serrano, Antonio A.2022. Gas temperature and air fraction diagnosis of helium cold atmospheric plasmas by means of atomic emission lines. Spectrochimica Acta Part B: Atomic Spectroscopy. 193, pp.106437-1-106437-9. ISSN 1873-3565.
- Artículo científico.** Rodero-Serrano, Antonio A.2021. Carbon Dioxide Decomposition by a Parallel-Plate Plasma Reactor: Experiments and 2-D Modelling. Applied Sciences. 11, pp.1047-1072. ISSN 2076-3417.
- Artículo científico.** Rodero-Serrano, Antonio A.2021. Analysis of the Applicability of the Parabolic Trough Solar Thermal Power Plants in the Locations with a Temperate Climate. Energies. 14, pp.3003-3022. ISSN 1996-1073.

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- 8 **Artículo científico.** Rodero-Serrano, Antonio A.2021. Disposal Behavior of Used Masks during the COVID-19 Pandemic in the Moroccan Community: Potential Environmental Impact. *International Journal of Environmental Research and Public Health*. 18, pp.4382-4401. ISSN 1661-7827.
  - 9 **Artículo científico.** Rodero-Serrano, Antonio A.2021. Analysis of the Heat Pump Market in Europe with a Special Regard to France, Spain, Poland and Lithuania. *Environmental and Climate Technologies*. 25-1, pp.840-852. ISSN 2255-8837.
  - 10 **Artículo científico.** Rodero-Serrano, Antonio A.2021. Numerical and experimental study of an Ar/CO<sub>2</sub> plasma in a point-to-plane reactor at atmospheric pressure. *Spectrochimica Acta Part B: Atomic Spectroscopy*. 177, pp.106048-106061. ISSN 1873-3565.
  - 11 **Artículo científico.** A. Lozano-Lunar; Dubchenko, I.; Bashynskiy, S.; Rodero-Serrano, Antonio A.; Fernandez-Rodriguez, Jose Maria; Jiménez-Romero, José Ramón. 2020. Performance of self-compacting mortars with granite sludge as aggregate. *Construction and Building Materials*. 251, pp.118998. ISSN 0950-0618.
  - 12 **Artículo científico.** Garcia-Martinez, M<sup>a</sup> Carmen; Yubero-Serrano, Cristina; Rodero-Serrano, Antonio A.2020. Measuring the air fraction and the gas temperature in non-thermal argon plasma jets through the study of the air influence on the collisional broadening of some argon atomic emission lines. *Plasma Sources Science & Technology*. 29-055006. ISSN 1361-6595.
  - 13 **Artículo científico.** Casado, Enrique; Garcia-Martinez, M<sup>a</sup> Carmen; Krawczyk, Dorota A.; Romero-Salguero, Francisco Jose; Rodero-Serrano, Antonio A.2020. Study of the plasma-liquid interaction for an argon nonthermal microwave plasma jet from the analysis of benzene degradation (DOI: 10.1002/ppap.202000030). *Plasma Processes and Polymers*. 17-9, pp.2000030. ISSN 1612-8869.
  - 14 **Artículo científico.** Rodero-Serrano, Antonio A.2020. Efficiency of a solar collector system for the public building depending on its location. *Environmental Science and Pollution Research*. 27, pp.101-110. ISSN 0944-1344.
  - 15 **Artículo científico.** Rodero-Serrano, Antonio A.2020. Analysis of thermal insulation of pre-insulated triple pipes - preliminary numerical tests. *Renewable Energy & Power Quality Journal*. 18, pp.522-525. ISSN 2172-038X.
  - 16 **Artículo científico.** Rodero-Serrano, Antonio A.2020. Preliminary studies of the water solar collector. *Renewable Energy & Power Quality Journal*. 18, pp.648-650. ISSN 2172-038X.
  - 17 **Artículo científico.** Mateo-Calvo, Juan; Quintero-Ortega, M<sup>a</sup> Del Carmen; Fernandez-Rodriguez, Jose Maria; Garcia-Martinez, M<sup>a</sup> Carmen; Rodero-Serrano, Antonio A.2019. Application of LIBS technology for determination of Cl concentrations in mortar samples. *Construction and Building Materials*. 204, pp.716-726. ISSN 0950-0618.
  - 18 **Artículo científico.** Rodero-Serrano, Antonio A.2019. Analysis of solar collectors' use in a single family house in Poland and Spain- a case study. *IOP Conference Series: Earth and Environmental Science*. 214, pp.012045-012061. ISSN 1755-1307.
  - 19 **Artículo científico.** Rodero-Serrano, Antonio A.2019. Reduction of Heat Losses Using Quadruple Heating Pre-Insulated Networks: A Case Study. *Energies*. 12, pp.4699-4711. ISSN 1996-1073.
  - 20 **Artículo científico.** Rodero-Serrano, Antonio A.2019. Carbon Dioxide Human Gains¿A New Approach of the Estimation. *Sustainability*. 11, pp.7128-7140. ISSN 2071-1050.
  - 21 **Artículo científico.** Rodero-Serrano, Antonio A.2019. Preface: Proceedings of the 8th International Conference ISMO¿19¿Innovations-SustainabilityModernity-Openness.Proceedings. 16, pp.15-15. ISSN 2504-3900.
  - 22 **Artículo científico.** Rodero-Serrano, Antonio A.2019. Investment Costs of Heating in Poland and Spain¿A Case Study. *Proceedings*. 16, pp.40-45. ISSN 2504-3900.
  - 23 **Artículo científico.** Rodero-Serrano, Antonio A.2019. The Advisability of Employment of Renewable Energy Sources in DHW Systems in the Kindergarten. *Proceedings*. 16, pp.41-44. ISSN 2504-3900.
  - 24 **Capítulo de libro.** Rodero-Serrano, Antonio A.2020. PERFORMANCE OF SELF-COMPACTING MORTARS MADE WITH GRANITE SLUDGE WASTE AS SUPPLEMENTARY SILICEOUS MATERIAL. *New Trends in Green Construction*. pp.73-74.

- 25 **Capítulo de libro.** Rodero-Serrano, Antonio A. 2020. THE CHEMICAL TREATMENT OF NATURAL STONE INFLUENCES ON INFRARED SPECTRA. New Trends in Green Construction. pp.143-144.
- 26 **Capítulo de libro.** Garcia-Martinez, M<sup>a</sup> Carmen; Rodero-Serrano, Antonio A. 2020. AN ARGON NON-THERMAL MICROWAVE PLASMA FOR TREATMENT OF BETX CONTAMINATED WATER VIA OH RADICAL OXIDATION. New Trends in Green Construction. pp.175-176.
- 27 **Capítulo de libro.** Rodero-Serrano, Antonio A.; Krawczyk, Dorota Anna. 2019. Development of Renewable Energy. Building 2020+: Energy Sources. pp.7-48.
- 28 **Capítulo de libro.** Krawczyk, Dorota Anna; Zukowski, Mirosław; Rodero-Serrano, Antonio A.; Bullejos-Martín, David. 2019. SOLAR SYSTEMS. Building 2020+: Energy Sources. pp.49-98.
- 29 **Capítulo de libro.** Bilinskiene, Ruta; Krawczyk, Dorota Anna; Teleszewski, Tomasz Janusz; Rodero-Serrano, Antonio A. 2019. MODERN SOLUTIONS IN HEATING SYSTEMS. Building 2020+: Construction, materials and installations. pp.169-198.
- 30 **Capítulo de libro.** Bilinskiene, Ruta; Teleszewski, Tomasz Janusz; Krawczyk, Dorota Anna; Rodero-Serrano, Antonio A. 2019. MODERN SOLUTIONS IN VENTILATION AND AIR CONDITIONING SYSTEMS. BUILDING 2020+: Constructions, Materials and Instalations. pp.199-226.
- 31 **Capítulo de libro.** Arroyo, Encarnación; Rodero-Serrano, Antonio A.; García-martínez, María Carmen. 2019. Capítulo 22. Desarrollo de técnicas de espectroscopía de emisión (atómicas y moleculares) para la diagnosis de plasmas fríos con diversa utilidad tecnológica. El merito de la investigacion. pp.92-96.
- 32 **Libro o monografía científica.** Rodero-Serrano, Antonio A.; Jiménez-Romero, José Ramón; Fernandez-Rodriguez, Jose Maria; E.F. Ledesma. 2020. New Trends in Green Construction. UCOPress. ISBN 978-84-9927-554-3.
- 33 **Libro o monografía científica.** Krawczyk, Dorota Anna; Rodero-Serrano, Antonio A. 2019. Buildings 2020+: Energy Sources. Printing House of Bialystok University of Technology. ISBN 978-83- 65596-72-7.
- 34 **Libro o monografía científica.** Krawczyk, Dorota Anna; Rodero-Serrano, Antonio A. 2019. Buildings 2020+: Constructions, materials and installations. Printing House of Bialystok University of Technology. ISBN 978-83- 65596-70-3.

## C.2. Congresos

- Garcia-Martinez, M<sup>a</sup> Carmen; Amaro-Gahete, Juan; Rodero-Serrano, Antonio A.; Romero-Salguero, Francisco Jose. Generating non-filamented argon plasma columns at atmospheric pressure using a surfatron consuming low 2.45 GHz microwave power. XXXV International Conference on Phenomena in Ionized Gases. 09/07/2023. Congreso.
- Garcia-Martinez, M<sup>a</sup> Carmen; Rodero-Serrano, Antonio A.. Optical Emission Spectroscopy Diagnosis of Helium Cold Atmospheric Plasmas. 9th International Conferemce on Plasma Medicine. 27/06/2022. Congreso.
- A. Lozano-Lunar; Dubchenko, E.; Rodero-Serrano, Antonio A.; Jiménez-Romero, José Ramón; Fernandez-Rodriguez, Jose Maria; Bashynskiy, S.. Performance of self-compacting mortars made with granite sludge waste as supplementary siliceous material.. International Conference on Green Construction. 08/04/2019. Congreso.
- Rodero-Serrano, Antonio A.; Shamrai, Volodymyr; Fernandez-Rodriguez, Jose Maria; Jiménez-Romero, José Ramón; Korobyichuk, Valentyn. The chemical treatment of natural stone influences on infrared spectra. International Conference on Green Construction. 08/04/2019. Congreso.
- Shamrai, Volodymyr; Rodero-Serrano, Antonio A.; Fernandez-Rodriguez, Jose Maria; Jiménez-Romero, José Ramón; Korobyichuk, Valentyn. EFFECT OF HIGH TEMPERATURE ON COLOR AND COMPRESSIVE STRENGTH OF NATURAL FACING STONES. NANOUCO VII Encuentro sobre Nanociencia y Nanotecnología. 21/01/2019. Congreso.
- Rodero-Serrano, Antonio A.. International Conference in Green Construction 19. Congreso.

## C.3. Proyectos o líneas de investigación

- 1 **Proyecto.** PID2020-114270RA-I00, PLASMAS ATMOSFÉRICOS DE ARCO DESLIZANTE PARA PROCESOS SOSTENIBLES. (Agencia Estatal de Investigación). Desde 01/09/2021. 108.9 €.
- 2 **Proyecto.** PID2020-112620GB-I00, Nucleation and Growth Mechanisms on Piezoelectric Surfaces under Acoustic Excitation in Plasma/Vacuum Environments. (Agencia Estatal de Investigación). Desde 01/09/2021. 106.48 €.