

Date of the CVA	16/04/2019
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Section A. PERSONAL DATA

Name and Surname	Beatriz Julián López		
DNI	19000810G	Age	41
Researcher's identification number	Researcher ID	F-2885-2011	
	Scopus Author ID	14024552200	
	ORCID	0000-0003-1019-776X	

A.1. Current professional situation

Institution	Universidad Jaime I		
Dpt. / Centre	Departamento de Química Inorgánica y Orgánica / Escuela Superior de Tecnología y Ciencias Experimentales		
Address	Avda. Vicente Sos Baynat, s/n, 12071, Castellon		
Phone	(+34) 696124474	Email	julian@uji.es
Professional category	Profesor Titular de Universidad	Start date	2011
UNESCO spec. code	230324 - Rare earths; 330305 - Chemical synthesis; 331200 - Materials technology; 332500 - Telecommunications technology		
Keywords	Chemistry of solid state; Lanthanum metals and acthanum metals; Structural determination and study of properties physical-chemistries; Physics - Quantum and nonlinear optics; Chemistral tecnology		

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year

A.3. General quality indicators of scientific production

Section B. SUMMARY OF THE CURRICULUM

Beatriz Julián-López (1977) received the B. Sc. degree in Chemistry from the Universitat Jaume I (UJI) of Castellón in 1999, where also obtained her PhD in Materials Chemistry in 2003. Her research in **luminescent hybrid organic-inorganic materials** was developed between the Universitat Jaume I and the Université Pierre et Marie Curie (UPMC-CNRS) in Paris under the supervision of Prof. P. Escribano, Prof. E. Cordoncillo and Prof. C. Sanchez. Her PhD thesis awarded the Special Prize for the best doctoral thesis from UJI in 2003 for the high qualification and its international character. In 2004 she started a 2 years-postdoctoral stay within the group of Prof. C. Sanchez working on **magnetic mesoporous hybrid materials for biomedical applications**. In this period of time, she also gained experience in the synthesis and characterization of **nanostructured films, nanoparticles and foams**.

In 2007 she obtained a "Ramon y Cajal" Spanish 5-year research contract at UJI. Her main interest was the design of **novel multi-functional hybrid organic-inorganic materials**, textured at different scales, by combining sol-gel, solvothermal and self-assembling processes, for optics, ceramics and catalysis. In 2011 she got a permanent position as Associate Professor at UJI, where started her own research group of **Multifunctional Materials, GMM**, focused on the development of advanced photonic materials for energy, catalysis and ceramics. The GMM group joined in 2015 the **Institute of Advanced Materials at University Jaume I**.

R+D+I Experience and Management Responsibilities:

- **52 scientific WOS-indexed publications**(more than 3/4 of them in Q1, 3 reviews, 3 covers), more than 3100 citations.

- **h-index: 22**

- Involved in 20 competitive I+D+I research projects (private and public funding), in 7 of them as Principal Investigator.
- 3 periods of 6-years research activity (2000-2005, 2006-2011, 2012-2017) evaluated by the National Agency for Evaluation of Research Activity (CNEAI)
- 3 PhD Thesis directions (2 defended and 1 in progress) and 12 Degree/Master Thesis.
- Evaluator in several Scientific Committees for the European Commission (H2020, since 2016) and the Spanish and French National Agencies (ANEP and ANR, since 2008).
- Regular referee for international scientific journals (Chem. Commun., Chem. Mater., J. Mater. Chem., Opt. Mater., etc.).
- Member of clauster (2008-2010), member of the Comisión de Estudios y Profesorado (2014-2018) and Comisión de Investigación y Doctorado (2016-2017) of Universitat Jaume I.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

- 1 Scientific paper.** Fabrizio Guzzetta; Anna Roig; Beatriz Julian Lopez. 2017. Ultrafast Synthesis and Coating of High-Quality β -NaYF₄:Yb³⁺,Ln³⁺ Short Nanorods The Journal of Physical Chemistry Letters. 8, pp.5730-5735.
- 2 Scientific paper.** Carles Felip Leon; et al. 2017. Multimodal Light-Harvesting Soft Hybrid Materials: Assisted Energy Transfer upon Thermally Reversible Gelation The Journal of Physical Chemistry C. 121-39, pp.21154-21159.
- 3 Scientific paper.** Parola S.; et al. (4/2). 2016. Optical Properties of Hybrid Organic-Inorganic Materials and their Applications ADVANCED FUNCTIONAL MATERIALS. WILEY-VCH. 26-36, pp.6506-6544. ISSN 1616-301X.
- 4 Scientific paper.** Francisco Gonell Gomez; et al. 2016. One step microwave-assisted synthesis of nano-crystalline WO_x-ZrO₂ acid catalysts Catalysis Science & Technology. 6-23, pp.8257-8267.
- 5 Scientific paper.** Gonell F.; et al. 2016. Copper-doped titania photocatalysts for simultaneous reduction of CO₂ and production of H₂ from aqueous sulfide APPLIED CATALYSIS B: ENVIRONMENTAL. Elsevier. 180, pp.263-270. ISSN 0926-3373.
- 6 Scientific paper.** Julian-Lopez B.; et al. (7/1). 2015. Easily processable multimodal spectral converters based on metal oxide/organic-inorganic hybrid nanocomposites NANOTECHNOLOGY. IOP Publishing. 26, pp.405601-405609. ISSN 0957-4484.
- 7 Scientific paper.** Francisco Gonell Gómez; et al. (7). 2014. Photon Up-Conversion with Lanthanide-Doped Oxide Particles for Solar H₂ Generation JOURNAL OF PHYSICAL CHEMISTRY C. AMER CHEMICAL SOC. 21 (118), pp.11279-11284. ISSN 1932-7447.
- 8 Scientific paper.** Luis D. Carlos; et al. (4). 2011. Progress on lanthanide-based organic-inorganic hybrid phosphors CHEMICAL SOCIETY REVIEWS. 40, pp.536-549. ISSN 0306-0012.
- 9 Scientific paper.** Sophie Lepoutre; et al. (2). 2010. Nanocasted mesoporous nanocrystalline ZnO thin films JOURNAL OF MATERIALS CHEMISTRY. 3 (20), pp.537-542. ISSN 0959-9428.
- 10 Scientific paper.** Frederik Rambaud; et al. (4). 2009. One-Pot Synthesis of Functional Helicoidal Hybrid Organic-Inorganic Nanofibers with Periodically Organized Mesoporosity ADVANCED FUNCTIONAL MATERIALS. 19, pp.2896-2905. ISSN 1616-301X.
- 11 Scientific paper.** Nicolas Brun; et al. (1). 2008. Eu³⁺ @Organo-Si(HIPE) Macro-Mesocellular Hybrid Foams Generation: Syntheses, Characterizations, and Photonic Properties (Review) CHEMISTRY OF MATERIALS. 20, pp.7117-7129. ISSN 0897-4756.
- 12 Scientific paper.** José Leocadio Planelles Aragón; et al. (2). 2008. Lanthanide doped ZnS quantum dots dispersed in silica glasses: An easy one pot sol-gel synthesis for obtaining novel photonic materials.JOURNAL OF MATERIALS CHEMISTRY. 43 (18), pp.5193-5199. ISSN 0959-9428.
- 13 Scientific paper.** Purificación Escribano López; et al. (2). 2008. Photonic and nanobiophotonic properties of luminescent lanthanide-doped hybrid organic-inorganic materials (Review) JOURNAL OF MATERIALS CHEMISTRY. 1 (18), pp.23-40. ISSN 0959-9428.

- 14 **Scientific paper.** Simona Ungureanu; et al. (/6). 2007. One-Pot Synthesis of the First Series of Emulsion Based Hierarchical Hybrid Organic-Inorganic Open-cell Monoliths Possessing Tunable Functionality (Organo-Si(HIPE) Series CHEMISTRY OF MATERIALS. 19 (23), pp.5786-5796. ISSN 0897-4756.
- 15 **Scientific paper.** Beatriz Julián López; et al. (/1). 2007. Mesoporous maghemite-organosilica microspheres: a promising route towards multifunctional platforms for smart diagnosis and therapy JOURNAL OF MATERIALS CHEMISTRY. 17, pp.1563-1569. ISSN 0959-9428.
- 16 **Scientific paper.** Beatriz Julián López; et al. (/1). 2006. Eu³⁺-doped CdS nanocrystals in SiO₂ matrices: One-pot sol-gel synthesis and optical characterization JOURNAL OF MATERIALS CHEMISTRY. 47 (16), pp.4612-4618. ISSN 0959-9428.
- 17 **Scientific paper.** Clement Sanchez; et al. (/2). 2005. Applications of hybrid organic-inorganic nanocomposites JOURNAL OF MATERIALS CHEMISTRY. ROYAL SOC CHEMISTRY. 15 (35-36), pp.3559-3592. ISSN 0959-9428.
- 18 **Scientific paper.** Purificación Escribano López; et al. (/5). 2005. Low-temperature synthesis of SrAl₂O₄ by a modified sol-gel route. XRD and Raman characterization JOURNAL OF SOLID STATE CHEMISTRY. 6 (178), pp.1978-1987. ISSN 0022-4596.
- 19 **Scientific paper.** Beatriz Julián López; et al. (/1). 2004. Synthesis and optical properties of Eu³⁺ -doped inorganic-organic hybrid materials based on siloxane networks. JOURNAL OF MATERIALS CHEMISTRY. 22 (14), pp.3337-3343. ISSN 0959-9428.
- 20 **Scientific paper.** Beatriz Julián López; et al. (/1). 2003. Synthesis and characterization of transparent PDMS-Metal-Oxo based organic-inorganic nanocomposites CHEMISTRY OF MATERIALS. 15 (15), pp.3026-3034. ISSN 0897-4756.

C.2. Participation in R&D and Innovation projects

- 1 UJI-B2018-71, NUEVAS ARQUITECTURAS MEJORADAS DE CONVERSIÓN ESPECTRAL PARA APLICACIONES AVANZADAS Universidad Jaime I. CONVOCATORIA DE PROYECTOS DE INVESTIGACIÓN CIENTÍFICA Y DESARROLLO TECNOLÓGICO (PLAN PROMOCIÓN DE LA INVESTIGACIÓN DE LA UJI 2014) * Modalitat B) Grups consolidats i investigador individuals. Beatriz Julián López. (Universitat Jaume I). 01/01/2019-31/12/2021. 15.882 €. Principal investigador.
- 2 MAT2015-64139-C4-1-R, Nanomateriales inteligentes, sondas y dispositivos para el desarrollo integrado de nuevas herramientas aplicadas al campo biomedico Plan Estatal de I+D+I orientada a los Retos de la Sociedad. Ramon Martinez Mañez. (UPV, Asoc. Fund. Hospital Univ. La Fe, UV y UJI). 01/01/2016-31/12/2018. 266.200 €.
- 3 P1-1B2014-21, NANOMATERIALES CONVERSORES DE ENERGÍA CON APLICACIONES TECNOLÓGICAS Universidad Jaime I. CONVOCATORIA DE PROYECTOS DE INVESTIGACIÓN CIENTÍFICA Y DESARROLLO TECNOLÓGICO (PLAN PROMOCIÓN DE LA INVESTIGACIÓN DE LA UJI 2014) * Modalitat B) Grups consolidats i investigador individuals. Beatriz Julián López. (Universitat Jaume I). 01/01/2015-31/12/2017. 25.284 €.
- 4 MAT2011-27008, DESARROLLO DE NANOMATERIALES FOTONICOS PARA CERAMICAS FUNCIONALES MINISTERIO DE ECONOMIA Y COMPETITIVIDAD. PROYECTOS DE INVESTIGACIÓN Y ACCIONES COMPLEMENTARIAS DENTRO DEL PROGRAMA NACIONAL DE PROYECTOS DE INVESTIGACION FUNDAMENTAL PARA EL AÑO 2011 * Proyectos áreas ANEP: TM, INF, ICI, IEL, IME, MTM, QMC, COM, TQ. Beatriz Julián López. (Universitat Jaume I). 01/01/2012-31/12/2015. 49.587 €.
- 5 PRI-AIBPT-2011-1010, SÍNTESIS Y CARACTERIZACIÓN DE MATERIALES MULTIFUNCIONALES BASADOS EN LANTÁNIDOS PARA FOTÓNICA MINISTERIO DE ECONOMIA Y COMPETITIVIDAD. Programa Nacional de Internacionalización de la I+D. Acciones Integradas. 2008-2011. Beatriz Julián López. (Universitat Jaume I). 15/12/2011-30/06/2014. 6.000 €.
- 6 P1-1B2007-47, NUEVOS NANOHIBRIDOS FOTONICOS CON IONES DE TIERRAS RARAS: DISEÑO A MEDIDA PARA APLICACIONES COMBINADAS Universidad Jaime I. PLAN DE PROMOCION DE LA INVESTIGACION DE LA UNIVERSITAT JAUME I DE CASTELLON, 2007 * Projectes d'investigació, Modalitat B). Beatriz Julián López. (Universitat Jaume I). 15/12/2007-14/12/2010. 32.500 €.