MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

Part A. PERSONAL INFORMATION

CV date	09/13/2023

First and Family name	Ángel Luis Álvarez Castillo		
Social Security, Passport, ID number		Age	[redacted]
Researcher numbers	Researcher ID	Z-5926-2019	
	Orcid code	0000-0002-5355-0300	

A.1. Current position

Name of University/Institution	Universidad Rey Juan Carlos		
Department	Teoría de la Señal y Comunicaciones, Sistemas Telemáticos y Computación / ETSI Telecomunicación		
Address and Country	C/ Tulipán s/n, Móstoles, 28933 (Madrid)		
Phone number	914887002	E-mail	angelluis.alvarez@urjc.es
Current position	Full Professor	From	[redacted]
Espec. cód. UNESCO	3307 (330707, 330714, 330792), 2211 (221113, 221116 221191		
Palabras clave	Organic optoelectronics – Graphene – Graphene oxide		

A.2. Education

PhD	University	Year
Graduate in Physics (5 years)	Universidad Complutense de Madrid	[redacted]
Doctor in Physics	Universidad Politécnica de Madrid	[redacted]

A.3. JCR articles, h Index, thesis supervised…

- Supervisor in 3 PhD thesis (4th one, in progress).
- 22 publications in JCR in the last 10 years (2011 – present), most in Q1. Honored with 2 covers in high impact journals: *Small* (Wiley) (issue 40, 1st October 2019) (https://onlinelibrary.wiley.com/toc/16136829/2019/15/40) and J. Phys. Chem Lett. (ACS) (https://pubs.acs.org/toc/jpclcd/11/6)
- 304 cites in the period 2013-20
- h index = 15 (Web of Science)

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

- Grant of Formation for Research Personnel 1991-95 (Dpt. Ingeniería Electrónica, ETSI Telecommunication - UPM)
- Predoctoral stays at the Fraunhofer Institute (Freiburg, 4 months 1992-1993), Imperial College (London, 1 month 1994)
- Participation in 23 competitive research projects (6 European, 8 National Ministry, 7 of Autonomous Community and 2 of University pre-competitive). In 6, (4 from the Autonomous Community and 2 from the National Ministry) as main researcher. Impeller of 2 granted EXPLORA Projects (2012-13 and 2017-18).
- 42 publications with JCR impact index (14 as 1st author/contact person, and 6 as 2nd author. Plus 2 book chapters)
- 54 conferences attendance (35 international)
- 4 patents: (3 in the last ten years, 2 with international extension).
- 1 award for the 10 best business ideas, Actúa UPM contest of the Technical University of Madrid- UPM (2012)
- Manager in period 2004-2008 of a laboratory (LabTEL, code 169) belonging to the Test Laboratories Network of Comunidad de Madrid, valued at 171,000 euros (cofund. FEDER).
- Member of the European Observatory of Organic Electronics - EOOE (2010-2013).
- Designated General Chairman of the Spanish Conf. on Electronic Devices (2015).
- Scientific reviewer in 4 calls within the National Research Program of the Spanish Ministry
- Reviewer of a variety of international publications: Appl. Phys. Lett, J. Appl. Phys., J. Opt A, Semicond. Sci. Technol., Appl. Optics, IEEE Sensors J., IEEE Trans. Electron Devices, Solid State Electron.

Part C. RELEVANT MERITS

C.1. Publications (including books) 2014-PRESENT

JOÃO MARTINS; PABLO MARTÍN RAMOS; Mª DEL CARMEN COYA PÁRRAGA; ANGEL LUIS ALVAREZ CASTILLO; L.C.J. PEREIRA; R. DÍAZ; JESÚS MARTÍN-GIL; MANUELA RAMOS SILVA
Lanthanide tetrakis-beta-diketonate dimers for solution-processed OLEDs.
Materials Chemistry and Physics, 147 (3) pp. 1157-1164 (15 Oct 2014). DOI: 10.1016/j.matchemphys.2014.06.073 SCI2012=2.072. Impact: 2.129 . 71 of 251 (1er tert in MATERIALS SCIENCE, MULTIDISCIPLINARY). CITED: 21

P. MARTÍN-RAMOS; C. COYA; V. LAVÍN; I. R. MARTÍN; M. RAMOS SILVA; P. S. PEREIRA SILVA; M. GARCÍA-VÉLEZ; A. L. ÁLVAREZ; J. MARTÍN-GIL.
"Active layer solution-processed NIR-OLEDs based on ternary erbium(III) complexes with 1,1,1-trifluoro-2,4-pentanedione and different N,N-donors". Dalton Trans., 43 (48) 18087-18096 (2014). DOI: 10.1039/C4DT01694G. IF: 4.097. 6 de 45(1er tertile in CHEMISTRY, INORGANIC & NUCLEAR) . CITED: 18

JOAO P. MARTINS; PABLO MARTÍN-RAMOS; CARMEN COYA; MANUELA RAMOS SILVA; M. ERMELINDA S. EUSEBIO; ALICIA DE ANDRÉS; ÁNGEL L. ÁLVAREZ; JESÚS MARTÍN-GIL.
"Highly luminescent pure-red emitting fluorinated B-diketonate europium(III) complex for full solution-processed OLEDs". J. Lumin., 159, pp 17-25 (2015). DOI: 10.1016/j.jlumin.2014.10.020. CITED: 35

E. CLIMENT-PASCUAL; M. GARCÍA-VÉLEZ; A. L. ÁLVAREZ; C. COYA; C. MUNUERA; X. DÍEZ-BETRIU; M. GARCÍA-HERNÁNDEZ; ALICIA DE ANDRÉS.
"Large area graphene and graphene oxide patterning and nanographene fabrication by one-step lithography". Carbon, 90, Aug. 2015, pp. 110-121. CITED: 13

A.L. ALVAREZ; C. COYA; M. GARCÍA-VÉLEZ
"Development of electrical-erosion instrument for direct write micropatterning on large area conductive thin films", Rev. Sci. Instrum. 2015, 86, 084704-6. CITED 2.

E. CLIMENT-PASCUAL, B. C. HAMES, J. S. MORENO-RAMÍREZ, A. L. ÁLVAREZ, E. J. JUAREZ-PEREZ, E. MAS-MARZA, I. MORA-SERÓ,* A. DE ANDRÉS*, C. COYA*
"Influence of the Substrate on the Bulk Properties of Hybrid Lead Halide Perovskite Films". J. Mater. Chem. A, 2016,4, 18153-18163. DOI: 10.1039/C6TA08695K. CITED: 44

A.L. ALVAREZ, C. COYA
OLEDs based on Ln (III) complexes for near infrared wavelength emission
Lanthanide-Based Multifunctional Materials: From OLEDs to SIMs. Chp4, pp. 133-170. Ed. by P. Martín-Ramos, M. Ramos-Silva. Elsevier, 2018. ISBN: 978-0-12-813840-3

J. BARTOLOMÉ, E. CLIMENT-PASCUAL, C. REDONDO-OBISPO, C. ZALDO, Á. L. ÁLVAREZ, A. DE ANDRÉS, C.COYA.
Huge Photo-Stability Enhancement in Bismuth Doped Methylammonium Lead Iodide Hybrid Perovskites by Light Induced Transformation.Chem.Mater.2019, 31,10,3662-3671. DOI: 10.1021/acs.chemmater.9b00270. CITED: 14

S. J. QUESADA, F. BORRÁS, M. GARCÍA-VÉLEZ, C. COYA, E. CLIMENT, C. MUNUERA, I. VILLAR, V. A. DE LA PEÑA, A. DE ANDRÉS, AL. ALVAREZ
"New Concepts for Production of Scalable Single Layer Oxidized Regions by Local Anodic Oxidation of Graphene", Small, 2019, 1902817. DOI: 10.1002/smll.201902817. CITED: 3

C. REDONDO-OBISPO. T.S. RIPOLLES, S. CORTIJO-CAMPOS, A.L. ÁLVAREZ, E. CLIMENT-PASCUAL, A. DE ANDRÉS, C. COYA.
"Enhanced stability and efficiency in inverted perovskite solar cells through graphene doping of PEDOT:PSS hole transport layer". Materials & Design 191, 108587 (2020). DOI: 10.1016/j.matdes.2020.108587. CITED: 29

C. REDONDO-OBISPO, I. SUÁREZ, S.J. QUESADA, T. S. RIPOLLES, J. P. MARTÍNEZ-PASTOR, A. L. ÁLVAREZ, A. DE ANDRÉS, C. COYA*
"Enhanced Nonlinear Optical Coefficients of MAPbI3 Thin Films by Bismuth Doping". J. Phys. Chem. Lett. 2020, 11, 6, 2188-2194. DOI: 10.1021/acs.jpclett.0c00319. CITED: 8

C.2. Research projects and grants

"Materiales híbridos basados en grafeno para aplicaciones optoelectrónicas: Optimización de sus propiedades y procesado de dispositivos de bajo coste (HYGRADIS)"
MAT2012-37276-C03-03. Ministerio de Economía y Competitividad
2013-2015
P. I.: Carmen Coya. Researchers nº: 3 (grupo URJC). Funding: Total: 46.800 €

"ABC GATES FOR EUROPE (ABC4EU)"
Entidad financiadora: Comisión Europea. VII Programa Marco
Entidades participantes: Universidad Rey Juan Carlos, INDRA, Price Waterhouse Coopers, Vision Box, Universidad de Laurea, Eticas Research and Consulting, Centre for Irish and European Security Limited, Dermalog Identification Systems GMBH, Universita degli Studi di Milano, Safe Id Solutions GMBH, Ministerio del Interior Español, Ministerio da Administracao Interna de Portugal, Politsei- ja Piirivalmeamet de Estonia, Ministerul Afacerilor Interne de Rumanía.
01/01/2014 hasta:30/06/2017
P. I.: Cristina Conde Vilda (URJC). Researchers nº: 70
Participation as signing researcher. Funding: 666522,88 € (URJC), 12.015.246,04 (Total)

"PHAMA 2.0: Photonic Advanced Materials"
S2013/MIT-2740. Comunidad de Madrid. Convocatoria de Programas de Actividades de I + D entre grupos de investigación de la Comunidad de Madrid en Tecnologías 2013
2015-18
P. I.: Ángel Luis Álvarez, grupo URJC (Coord. del Programa, Ceferino López). Researchers nº: 3 (grupo URJC)
Funding: URJC 60.000 € (Total PHAMA: 776.875 €)

"Red de electronica flexible, impresa y organica (REFLEXIO)"
TEC2015-71915-REDT. Ministerio de Economía y Competitividad
2016-2017
P. I.: Angel Luis Alvarez (Coordinador: Lluis Marsal – U. Rovira i Virgili). Researchers nº: 1 (grupo URJC). Funding: Total: 30.000 €

"Materiales hibridos basados en grafeno para aplicaciones en energia y deteccion optica"

MAT2015-65356-C3-2-R. Ministerio de Economía y Competitividad
2016-2018
P. I.: Mª del Carmen Coya. Researchers nº: 3. Funding: Total: 60.000 €

"Transformación directa y selectiva de grafeno en óxido de grafeno mediante descargas eléctricas controladas"
TEC2015-72061-EXP. Ministerio de Economía y Competitividad
Mayo 2017- Mayo 2018
P. I.: Angel Luis Alvarez. Researchers nº: 7. Funding: Total: 45.000 €

"Sinergias entre perovskitas híbridas y materiales 2d para dispositivos optoelectrónicos con aplicaciones en energía (HyMSODAE)"
PID2020-115514RB-I00. Ministerio de Ciencia e Innovación.
P.Is.: Mª del Carmen Coya- Angel Luis Alvarez. Funding: 101.500 eur

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C.3. Contracts

C.4. Patents (in the last 10 years)

TITLE: "Covalent Functionalization of Graphene". *PERCENTAGE OF INVENTION*: all 25%. *PUBL.* WO/2021/160911. *PRIORITY: España (P202030111 extended to PCT/ES2021/070088). APPLICATION FROM: 11 Feb 2020. .INSTITUTION: URJC.*
https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2021160911

TITLE: "Lámpara incandescente de alta eficiencia, procedimiento de fabricación y dispositivo de control de potencia para la misma". *PERCENTAGE OF INVENTION*: all 20%. *PUBL. Nº WO2013098430 A1. PRIORITY: España. PUBLICATION: 4 Jul 2013.* https://google.com/patents/WO2013098430A1?cl=es . *INSTITUTIONS: UPM- URJC*

TITLE: "Procedimiento de ablación por electroerosión del ánodo y del cátodo de los diodos luminiscentes de compuestos orgánicos OLEDs para la fabricación de pantallas". *PERCENT. OF INVENTION*: all 16.7 %. *PUBL. Nº: P201030276 (ES2346843). PRIORITY: España. PUBLICATION: 25 Feb 2010.* http://invenes.oepm.es/InvenesWeb/detalle?referencia=P201030276 . *INSTITUTIONS: Universidad Politécnica de Madrid- Universidad Rey Juan Carlos*

For more patents, see also: *https://www.google.com/patents/WO2012120175A1?cl=es*
http://invenes.oepm.es/InvenesWeb/detalle?referencia=P200703237

C.5, C.6, C.7… (e. g., Institutional responsibilities, memberships of scientific societies…)

- Member of the European Observatory of Organic Electronics - EOOE (2010-2013).
- Member of the Committee of the Spanish Conference on Electronic Devices (2008-present). Designated general chairman of the CDE 2015.
- Member of IEEE since 2002 to present.
- CEO of Eulogy2D company (2022 --)