

Part A. PERSONAL INFORMATION

CV date 09/04/2020

First and Family name	M. Carmen Ruiz Delgado		
Social Security, Passport, ID number	77469096J	Age	42
Researcher codes	WoS Researcher ID (*)	F-7038-2013	
	SCOPUS Author ID(*)		
	Open Researcher and Contributor ID (ORCID) **	0000-0001-8180-7153	

(*) At least one of these is mandatory

(**) Mandatory

A.1. Current position

Name of University/Institution	University of Málaga		
Department	Physical Chemistry, Faculty of Sciences		
Address and Country	Bulevar Louis Pasteur 31, 29010, Málaga		
Phone number	951953325	E-mail	carmenrd@uma.es
Current position	Associate Professor	From	28/12/2017
Key words	Organic Electronics, Vibrational Spectroscopy (IR and Raman), Computational Chemistry, Pi-Conjugated Molecular Materials, Photophysics; Solid State Physics; Charge-Transport		

A.2. Education

PhD	University	Year
PhD in Chemistry	University of Málaga	2006

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

The applicant has published **90 scientific articles (26 in the last 5 years)**, with 72 of them in the first quartile (Q1) and 17 articles as a corresponding author (**11 in the last 5 years**). Her **H index is 25 (16 considering only the last 10 years)** according to Thomson Reuters Web of Science. The global number of citations is 1935 (1778 excluding self-citations). The average citations per year, considering the last 5 years and excluding the present year, is 164 citations/year. She has supervised 2 PhD Thesis graduated with highest honors (*cum laude*) and she is currently supervising 4 PhD students. She has directed 7 Master Thesis and 5 Final Degree Projects.

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

M. Carmen Ruiz Delgado is Associate Professor of Physical Chemistry at the University of Malaga (UMA) since December 2017. She completed her Bachelor degree in Chemical Engineering at UMA in 2001, graduating with Honors. The scientific quality of the research carried out during her PhD period at UMA is supported by the publication of a large number of peer-review papers (1 JACS, 3 Chem. Eur. J., 2 J. Phys. Chem. B, etc), and the achievement of three awards: NANOMATMOL 2007 Prize to the best Thesis defended in 2006 by the Nanomatmol-RSEQ, "Premio Extraordinario de Doctorado" by the UMA, and "Dr. Esteban Pérez-Bryan Souviron" Award.

In April 2007, she joined Prof. Jean-Luc Brédas group at Georgia Tech (Atlanta, USA), as a MEC/Fulbright Postdoctoral Research Fellow (2007-2009) and as a Postdoctoral Research Fellow (2009-2010). Her postdoctoral research dealt with the computational study of the impact of the intermolecular interactions on the charge transport properties of conjugated organic nanomaterials. During her postdoc period, she published 10 original research articles in top ranked peer-reviewed journals and she was awarded with the "AACCP Postdoctoral Award" of the Georgia Tech and Emory University for excellence during her postdoctoral research. In 2010, she was honored with the award of the "2010 Spanish Royal Society of Chemistry" to the most talented young people.

In 2010, she joined again the UMA with a Ramón y Cajal research contract and got promoted to Associate Professor in 2017. Her current research focuses on the study of conjugated

materials for organic electronics and photonics, combining physico-chemical analyses (her PhD expertise) with molecular modeling study (her postdoc expertise).

She has published 90 original research papers (72 of them in the first quartile Q1), including 7 J. Am. Chem. Soc., 4 Chem. Mater., 1 Chem. Sci., 13 Chem. Eur. J., etc, and one book chapter. In the last 5 years, she published 26 scientific articles with 11 articles as a corresponding author. Her H index is 25. In 2018, one of her papers has been featured in the front cover and another one was selected as hot paper in high impact factor journals. She has presented more than 85 contributions in national and international conferences, including 22 oral communications (6 invited talks). She has delivered 8 invited talks in national and international Universities.

She has participated in 12 research projects funded with public funds from the Spanish Ministry (5), Junta de Andalucía (4), European project (1) and USA projects (2). The applicant has currently recognized 2 research "sexenios". She has coadvised 2 PhD Thesis, along with 4 PhD currently in progress. She has also supervised the research stays of 3 PhD students from the Politecnico di Milano, University of Stuttgart and University of Brasilia. She has taught more than 900 hours in different physico-chemical courses in Chemistry and Chemical Engineering bachelors and Master degree. In addition, the applicant frequently participates in dissemination activities aim to make visible the scientific results to the society and/or to support the gender equity and women's empowerment. In this regard, she has participated in events such "La Noche Europea de los Investigadores" or "Female Leaders in Science" since 2016. Since March 2017 she is Adjunct Vice-Rector for Research Staff at the University of Málaga.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Selected publications from the last 10 years

1. TITLE: Effect of the Linkage Position on the Conjugation Length of Truxene-Based Porous Polymers: Implications for Their Sensing Performance of Nitroaromatics.

AUTHORS: M. Echeverri, S. Gámez-Valenzuela, R.C. González-Cano, J. Guadalupe, S. Cortijo-Campos, J.T.L. Navarrete, M. Iglesias, M. Carmen Ruiz Delgado*, Berta Gómez-Lor

JOURNAL REFERENCE: Chem. Mater., 31, 6971 (2019)

*M. Carmen Ruiz Delgado is corresponding author

2. TITLE: Fused donor-acceptor pi-conjugated diazatruxenones: synthesis and electronic properties

AUTHORS: Ángela Benito-Hernández, Mardia T. El-Sayed, Juan T. López Navarrete, M. Carmen Ruiz Delgado* and Berta Gómez-Lor.

JOURNAL REFERENCE: Org. Chem. Front., 5, 1748 (2018) (*front cover*)

*M. Carmen Ruiz Delgado is corresponding author

3. TITLE: High-Mobility Self-Assembling Truxenone-Based n-Type Organic Semiconductors

AUTHORS: Sandra Gómez-Esteban, Angela Benito-Hernández, Roberto Termine, Gunther Henrich, Juan T. López Navarrete, M. Carmen Ruiz Delgado*, Attilio Golemme, Berta Gómez-Lor

JOURNAL REFERENCE: Chemistry A European Journal 24, 3576 (2018) (*hot paper*)

*M. Carmen Ruiz Delgado is corresponding author

4. TITLE: New Multiresponsive Chromic Soft Materials: Dynamic Interconversion of Short 2,7-Dicyanomethylenecarbazole-Based Biradicaloid and the Corresponding Cyclophane Tetramer

AUTHORS: Deliang Wang, Cristina Capel Ferrón, Jie Li, Sergio Gámez-Valenzuela, Rocio Ponce Ortiz, Juan T. López Navarrete, Víctor Hernández Jolín, Xiaodi Yang, Miriam Peña Álvarez, Valentín García Baonza, Frantisek Hartl, M. Carmen Ruiz Delgado*, Hongxiang Li

JOURNAL REFERENCE: Chemistry A European Journal 23, 13776 (2017)

*M. Carmen Ruiz Delgado is corresponding author

5. TITLE: The Raman fingerprint of cyclic conjugation: the case of the stabilization of cations and dications in cycloparaphenylenes.

AUTHORS: Miriam Peña Alvarez, M. Carmen Ruiz Delgado, Mercedes Taravillo, Valentin G. Baonza, Juan T. López Navarrete, Paul Evans, Ramesh Jasti, Shigeru Yamago, Miklos Kertesz, Juan Casado

JOURNAL REFERENCE: Chemical Science, 7, 3494 (2016)

6. TITLE: Triindole-Bridge-Triindole Dimers as Models for Two Dimensional Microporous Polymers

AUTHORS: Constanza Ruiz; Juan T. López Navarrete; M. Carmen Ruiz Delgado*, Berta Gomez-Lor.

JOURNAL REFERENCE: Organic Letters, 17, 2258 (2015)

*M. Carmen Ruiz Delgado is corresponding autor

7. TITLE: Multistep pi-Dimerization of Tetrakis(n-decyl)-heptathienoacene Radical Cations: A Combined Experimental and Theoretical Study.

AUTHORS: Cristina Capel Ferrón; Marçal Capdevila-Cortada; Russell Balster; František Hartl; Weijun Niu; Mingqian He; Juan J. Novoa; Juan T. López Navarrete; Víctor Hernández; M. Carmen Ruiz Delgado*

JOURNAL REFERENCE: Chemistry A European Journal, 20, 10351 (2014)

*M. Carmen Ruiz Delgado is corresponding autor

8 TITLE: Substituent and counterion effects on the formation of pi-dimer dications of end-capped heptathienoacenes.

AUTHORS: C. Capel Ferrón; M. Carmen Ruiz Delgado*; V. Hernández; J. T. López Navarrete; B. Vercelli; G. Zotti; M. Capdevila Cortada; J. J. Novoa; W. Niu; M. He; F. Hartl ; J. T. López Navarrete

JOURNAL REFERENCE: Chemical Communications, 2011, 47, 12622–12624 (2011)

*M. Carmen Ruiz Delgado is corresponding author

9. TITLE: Transition from Tunneling to Hopping Transport in Long, Conjugated Oligo-imine Wires Connected to Metals.

AUTHORS: S.H. Choi, C. Risko, M.C. Ruiz Delgado, B. Kim, J.L. Brédas and C. Daniel Frisbie.

JOURNAL REFERENCE: J. Am. Chem. Soc. 132, 4358-4368 (2010)

10. TITLE: Tuning the Charge-Transport Parameters of Perylene Diimide Single Crystals via End and/or Core Functionalization: A Density Functional Theory Investigation.

AUTHORS: M. Carmen Ruiz Delgado, E.G. Kim. D.A. da Silva Filho, J.L. Brédas.

JOURNAL REFERENCE: J. Am. Chem. Soc. 132, 3375-3387 (2010)

C.2. Research projects and grants

1. **TITLE:** “Mejora de la Eficiencia de Dispositivos Electrónicos Orgánicos: Estudio de los Procesos Químico-Físicos claves para su Funcionamiento”.

FINANCIAL ENTITY: Junta de Andalucía.

IP: Rocío Ponce Ortiz y M. Carmen Ruiz Delgado

AFFILIATION ENTITY: Universidad de Málaga

DATES: 1/09/2019-31/08/2021

AMOUNT: 71.933,41 €.

PARTICIPATION: IP

2. **TITLE:** Búsqueda de nuevos materiales derivados de heterociclos multifuncionales con propiedades como guía de onda y en OFETs

REFERENCE: SBPLY/17/180501/000189

IP: Rocío Ponce Ortiz y Pilar Prieto Núñez-Polo

FINANCIAL ENTITY: Junta de Comunidades de Castilla la Mancha

AFFILIATION ENTITY: Universidad de Málaga y Universidad de Castilla la Mancha

DATES: 1/09/2018-31/08/2021

AMOUNT: 110.611 €.
PARTICIPATION: Researcher

3. TITLE: Estudio Espectroscópico y Teórico de Materiales Orgánicos para Electrónica Molecular: de la Molécula al Dispositivo.
REFERENCE: CTQ-2015-66897
IP: J. Teodomiro López Navarrete
FINANCIAL ENTITY: MINECO
AFFILIATION ENTITY: Universidad de Málaga
DATES: 01/01/2016 -31/12/2018
AMOUNT: 208.604 €
PARTICIPATION: Researcher

4. TITLE: Estudio Espectroscópico y Teórico de Materiales Orgánicos para Electrónica Molecular.
REFERENCE: CTQ-2012-33733
IP: J. Teodomiro López Navarrete
FINANCIAL ENTITY: MINECO
AFFILIATION ENTITY: Universidad de Málaga
DATES: 01/01/2013- 31/12/2015
AMOUNT: 284.310 €
PARTICIPATION: Researcher

5. TITLE: "Ramon y Cajal Research Contract"
REFERENCE: RYC-2010-07186
IP: M. Carmen Ruiz Delgado
FINANCIAL ENTITY: Ministerio de Ciencia e Innovación
AFFILIATION ENTITY: Universidad de Málaga
DATES: 19/11/2010-18/11/2015
AMOUNT: 192.480 €
PARTICIPATION: IP

6. TITLE: "Optimization of organic thin-film transistors for plastic electronics: toward transparent components in new devices"
REFERENCE: PIOF-GA-2009-234808
IP: J. Teodomiro López Navarrete
FINANCIAL ENTITY: European Commission
AFFILIATION ENTITY: Northwestern University and Universidad de Málaga
DATES: 20/10/2009-08/02/2013
AMOUNT: 240.000 €
PARTICIPATION: Researcher

C.4 Institutional responsibilities, memberships of scientific societies

- Since March 2017 she is Adjunct Vice-Rector for Research Staff at the UMA.
- Since January 2018 she is Treasurer of the European Scientific Society "Computing pi-Conjugated Compounds"
- Vice-secretary of the Faculty of Sciences at UMA from 01/06/2016 to 14/03/2017.
- Treasurer (2013-2016) and Vice-President (2010-2013) of the The Spanish Royal Society of Chemistry (Young Research Section).