

**Part A. Personal Information**

<b>DATE</b>	10/07/2023
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Surname(s)	MORENO PEREZ	
Forename	Maria Teresa	
Social Security, Passport, ID number	33.505.536X	
Sex	Female	
Age	54	
Researcher codes	WoS Researcher ID (*)	C-9349-2009
	SCOPUS Author ID(*)	7006651888
	Open Researcher and Contributor ID (ORCID)	0000-0003-3235-1027

(\*) At least one of these is mandatory

**A.1. Current position**

Post/ Professional Category	Research Professor ( <i>Profesora de Investigación</i> ) <b>CSIC Coordinator for Earth and Environment</b> since April 2023	
UNESCO Code	250604	
Key Words	Indoor and outdoor air quality, particulate matter, exposure	
Name of the University/Institution	Consejo Superior de Investigaciones Científicas (CSIC)	
	Department/Centre	Vicepresidencia Adjunta de Áreas Científico-Técnicas / Instituto de Diagnóstico Ambiental y Estudios del Agua
	Full Address	C/Jordi Girona 18, 08034 Barcelona
	Email Address	teresa.moreno@idaea.csic.es coord.vida.medioambiente@csic.es
	Phone Number	934006123
Start date	13/04/2023	

**A.2. Education (title, institution, date)**

Year	University	Degree	Title
1992	Universidad Complutense Madrid (Spain)	First degree	Earth Sciences
1993	Universidad Complutense Madrid (Spain)	Masters	Mineralogy of bioxidative processes in arsenopyrites
1999	Cardiff University (UK)	PhD	Cr-PGE mineralisation in the ultramafic massifs of Cabo Ortegal, NW Spain

**A.3. Indicators of Quality in Scientific Production (See the instructions)**

Number of "six-year" periods ( <i>sexenio</i> ): 5 Number of PhD thesis directed: 4 (3 ongoing) Total cites: 12173 Publications in first quartile: 158 H index: 59 (Scopus)
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**Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)**

Teresa Moreno is a Scientific Researcher of the Spanish National Research Council (CSIC) since 2010. She completed her doctoral thesis at the "School of Earth and Ocean Sciences" of the University of Cardiff (United Kingdom, 1999) on the geochemistry of platinum group elements. After obtaining a Fulbright scholarship (Colgate University, New York, United States), she was a postdoctoral researcher at the Medical Research Council in the United Kingdom working on the physical and chemical characterization of atmospheric particulate matter and its effects on health. Prof. Moreno has worked at the CSIC since 2004, and published more than 160 articles in SCI journals, and contributed more than 30 books (4 as an editor) and other informative publications. She has participated in more than 70 competitive

projects, 17 of them as main researcher at national level including being the Scientific Director of the Severo Ochoa Excellence Award (IDAEA, 4.000.000€) (Ministries of Environment, Science and Innovation and Economy and Competitiveness) and international (European Union, Framework Programs and LIFE), including in the IMPROVE LIFE project of the European Union (2014-2018) as coordinator and the nationally funded METRO, BUSAIR and EXPOPLAS projects (2013-2015, 2016-2019, 2020-2023) on the improvement of air quality in the subway and on public buses, and exposure to airborne plastics. She was the Director of IDAEA from May 2018 until July 2023, is **currently Scientific Director of the Severo Ochoa Centre of Excellence project** in IDAEA, and recently (2023) became **Co-ordinator for Earth and Environment Research in CSIC**.

Previous positions:

Director of IDAEA-CSIC: 21/05/18-30/06/23.

Director of the Centre for Research and Development (CID-CSIC): 10/09/20-30/09/22.

Vice-director of CID-CSIC: 21/05/18-09/09/20 and 01/10/22- 30/06/23

## Part C. Relevant accomplishments

### C.1. Selected publications last 10 years

- Moreno, T. et al (2023). A new look at rubber recycling and recreational surfaces: The inorganic and OPE chemistry of vulcanised elastomers used in playgrounds and sports facilities. *Science of the Total Environment*, 868, 161648
- Moreno and Gibbons (2022). Aerosol transmission of human pathogens: from miasmata to modern viral pandemics and their preservation potential in the Anthropocene record. *Geoscience Frontiers*, 101282
- Moreno et al (2021). Tracing surface and airborne SARS-CoV-2 RNA inside public buses and subway trains. *Environment International*, 147, 106326
- Moreno et al. (2020). Using miniaturised scanning mobility particle sizers to observe size distribution patterns of quasi-ultrafine aerosols inhaled during city commuting. *Environmental Research*, 191, 109978
- Moreno et al (2019). Vehicle interior air quality conditions when travelling by taxi. *Environmental Research* 172, 529-542
- Moreno et al (2019). Trace element fractionation between PM10 and PM2.5 in coal dust: implications for occupational respiratory health. *International Journal of Coal Geology* 203, 52-59
- Moreno and de Miguel (2018). Improving air quality in subway systems: an overview. *Environmental Pollution* 239, 829-831
- Moreno et al (2017). The effect of ventilation protocols on train subway system air quality. *Science of the Total Environment* 584-585, 1317-1323
- Moreno et al (2017). Oxidative Potential of Subway PM2.5. *Atmospheric Environment* 148, 230-238
- Moreno et al (2015). Urban Air Quality comparison for bus, tram, subway and pedestrian commutes in Barcelona. *Environmental Research* 142, 495–510
- Moreno et al (2015). A new look at inhalable metalliferous airborne particles on rail subway platforms. *Science of the Total Environment* 505, 367–375
- Moreno et al (2014). Subway platform air quality: assessing the influences of tunnel ventilation, train “piston effect” and station design. *Atmospheric Environment* 92, 461-468
- Moreno et al (2014). Variations in school playground and classroom atmospheric particulate chemistry. *Atmospheric Environment* 91, 162–171
- Moreno et al (2013). Daily and hourly chemical impact of transboundary aerosols on Japanese air quality. *Atmospheric Chemistry and Physics* 13, 1411–1424
- Moreno et al (2013). Chemical daily & hourly sourcing of metallic and mineral dust in urban air contaminated by traffic & coal emissions. *Atmospheric Environment* 68, 33-44

### C.2. Research Projects and Grants (as Principal Investigator)

- Caucho reciclado y superficies recreativas: la química de los microplásticos vulcanizados utilizados en parques infantiles (EUR2022-134037). Agencia Estatal de Investigación. Convocatoria Europa Excelencia 2022. 89.646 €. 2022- 2024.
- Excellence Centre “Severo Ochoa”. SEV-2018. Spanish Ministry of Science, Innovation and Universities. The programme for accreditation and support of “Centres of Excellence Severo

Ochoa” is an initiative of the Spanish Government that aims to promote excellence in scientific research in Spain . 4,000,000€. 2019-2022.

Fast track to cleaner, healthier urban Aerosols by market ready Solutions of retrofit Filtration Devices for tailpipe, brake systems and closed environments (AeroSolfd). European Commission - HORIZON-Innovation Actions. Project number 101056661. 05/2022-04/2025. 547.425 €

Evaluacion De La Exposicion Humana A Aditivos Quimicos Asociados Al Plastico (EXPOPLAS). Spanish Government. PID2019-110576RB-I00. 01/06/2020-30/05/2023. 193.600€

Reducing risks from Occupational exposure to Coal Dust (ROCD). European Commission. Research Fund for Coal and Steel nº contr: 754205. 01/07/2017-30/06/2020. 216.520 €

Air quality inside public buses: physico-chemical and biological characterization (BUSAIR). Spanish Government. CGL2016-79132-R.01/01/2017-31/12/2019. 128.000 €.

Implementing methodologies and practices to reduce air pollution of the subway environment (IMPROVE). European Commission- LIFE13 ENV/ES/000263. 01/10/2014-31/03/2018. 814.433 €. T. MORENO Project Coordinator.

Physico-chemical and toxicological characterization of inhalable particles in ambient air of the suburban Metro (METRO). Spanish Government. 01/2013-12/2015. 136.730€.

Evaluación de la presencia y de la eficiencia de desinfección de SARS-CoV-2 en superficies y aire de autobuses de transporte público. CSIC (fondos COVID, Unión Europea) y TMB. 05/2020-05/2021. 60.000 €

Exposure to air pollutants while travelling by taxi. Fundación ACS. 01/01/2017-31/12/2017. 25.000 €.

Identification of factors affecting the quality of the air we breathe in urban transport buses. Fundación ACS. 01/01/2016-31/12/2016. 25.000 €.

Efectos de la erosión atmosférica y la fotodegradación en la bioaccesibilidad de micro(nanoplásticos) y aditivos plásticos a través de la inhalación. Fondos Severo Ochoa. Proyectos SINERGIA. 2021-2022. 30.000 €

Air quality in public transport systems and passenger exposure. Fundación ACS. 01/2013-12/2014. 25.000 €.

Colaboración Europea En Estudios De Calidad Del Aire Y Toxicología (CECAT). Dir. General de Investigación y Gestión Del Plan Nacional I+D, Ministerio de Ciencia e Innovación. CTM2011-14730-E. 01/01/2012-30/06/2013. 27.800 €.

Systems to Evaluate Risks by Atmospheric Contamination (SERCA). Spanish Environmental Ministry (MARM). 2008-2011. €230,757.

Integrated Assessment of Health Risks from Environmental Stressors in Europe (INTARESE). European Union (EU). 2005-2010. € 162,000.

### **C.3. Contracts as PI**

Sub-contratación en el marco del Proyecto científico-tecnológico “Investigación y desarrollo de filtros tipo EPI y de estándares de caracterización para mascarillas faciales de alta capacidad filtrante, seguras para la salud y con propiedades anticongestivas, balsámicas y ergonómicas” (ConfortMask) (IDI-20210547). 2022.

Caucho granulado y contaminación atmosférica: un aspecto medioambiental del reciclaje de neumáticos. 2021. ACS. 25.000 €

Elaboració de la base de dades sobre les activitats realitzades al transport públic pel Sars COVID19. 2021. Autoritat Transport Metropolitano. Area de Barcelona (ATM). 12.357 €

Efecto de la utilización de purificadores de aire en los andenes del metro. 2017. GINSA . 11.325 €

Calidad del aire en estaciones de fondo rural y urbano en La Rioja. Duración 2012-2013. Gobierno La Rioja. Financiación: 31.480 €

Influencia del efecto pistón en la calidad del aire de las estaciones de la Línea 2 del metro de Barcelona. 2013. Transportes Metropolitanos de Barcelona (TMB). 12.000 €

Estudio de los niveles de calidad del aire en Zumárraga en comparación con estudios previos. 2011. Gobierno Vasco. 17.800 €

Caracterización de PM y análisis de contribución de fuentes, en Montcada i Reixacs. Finaliza Diciembre 2011. División de Calidad del Medio ADASA SISTEMAS S.A.U. Financiación: 30.494 €

#### C.4. Patents and other IPR

Amato, F., Moreno, T., Querol X., Alastuey A. Sampler for collecting micrometric airborne particles deposited on traffic lines. Patent number: P201131895. 25/04/2014

#### C.5, C.6, C.7... Other

##### C.5. PhD Thesis directed

Influencia del tráfico rodado y grandes obras de construcción/demolición en los niveles, composición química y estrés oxidativo del material particulado en la ciudad de Barcelona. Cristina Reche. 2012. Universitat de Barcelona. Director: T. Moreno, M. Viana.

Personal exposure to PM during commutes: underground systems (Metro). Vania Ferreira. April 2016. Universitat de Barcelona. Director: T. Moreno, MC Minguillón.

Reducing risks from occupational exposure to coal dust. Pedro Trechera. January 2022. Universitat Politecnica de Catalunya. Director: T. Moreno, X. Querol.

Calidad del aire en el interior de autobuses del transporte publico. Amaia Fernández. July 2023. Universitat Politecnica de Catalunya. Director: T. Moreno, F. Amato.

ExpoSure To Inhalable Microplastic POLLutants. Aleix Balasch. Universitat de Barcelona. Director: T. Moreno y E. Eljarrat. 2021-2024.

Evaluacion De La Exposicion Humana A Aditivos Quimicos Asociados Al Plastico. Julio Fernandez. Universitat de Barcelona. Director: E. Eljarrat y T. Moreno. 2021-2024.

Cleaner, healthier urban aerosols by retrofit Filtration Devices for tailpipe, brake systems and closed environments. Stefanos Agathokleous. Universitat de Barcelona. 2022-2026.

##### C.6. Participation in National and International Committees

Coordinator of the Interdisciplinarity Platform (PTI+) for Mobility in CSIC since 2021.

Member of the CSIC Sustainability Committee since May 2023.

Member of the Working Group for Action Protocols in emergencies caused by natural and biological risks of CSIC since April 2023.

CSIC representative in the State Council for Natural Heritage and Biodiversity (since 2023)

CSIC representative in the Spanish Geodesy Commission (since 2023)

CSIC representative in the plenary session of the National Climate Council (since 2023)

CSIC representative in the Ordesa-Viñamala Biosphere Reserve Consortium (since 2023)

Member of the Jury of the Fondena 2023 Awards (<https://www.fondena.com/premios-fondena>)

Member of the Evaluation Committee of the Auga Campus (Orense) as a specialization campus of the Galician university system (2023)

Member of the Committee of Experts of the Observatory for Innovation in the Water Cycle (Cetaqua, Agbar, Institut Cerdà) since 2023.

Coordinator of the Environmental Impact of SARS-CoV2, in PTI+Global health-CSIC

Member of the External Scientific Committee of BC3 (Basque Centre for Climate Change). 2020-2024.

Member of the MaB Committee for advice to the Ministry of the Environment on Biosphere Reserves (Man and Biosphere de Naciones Unidas) 2012-2017.

Evaluator of Projects of Excellence 2012-2022 for Natural Resources, Energy and Environment. Junta de Andalucía.

##### C.7. Research+Innovation experience

Organiser of the international conference "5th Iberian Meeting on Aerosol Science and Technology (RICTA 2017)" organized in Barcelona (SPAIN) on 3-6 July 2017.

Organiser Member of the organiser committee for the "4th Workplace and Indoor Aerosols conference" Barcelona (Spain) 20-22 April 2016.

Organiser of "Open Access Expert's Workshop on air quality in subway systems". 05/2015, Barcelona (<http://improve-life.eu/en/event/open-access-experts-workshop-on-air-quality-in-subway-systems/>).

Organiser of the Special Session: "Commuter air quality in rail subway systems: current understanding and future mitigation" for the SETAC Europe 25th Annual Meeting". Barcelona.

Co-organiser of the workshop "Urban Air Quality: the Challenge of Non-exhaust Road Transport Emissions". B-DEBATE International Center for Scientific Debate Barcelona e IDAEA-CSIC. 11-12/07/2014, Barcelona.