**PERSONAL INFORMATION**

Family name, First name: **KONSTANTAKOU MARIA**

Date of birth: October 21, 1978

Nationality: GREEK

Marital status: Unmarried (2 children)

Contact: [m.konstantakou@inn.demokritos.gr](mailto:m.konstantakou@inn.demokritos.gr)

* **CURRENT POSITION**

2020 – today Senior Post-doc Research Assistant

Laboratory of Photovoltaic and Optoelectronic Materials and Devices, Institute of Nanoscience and Nanotechnology, NCSR Demokritos (Greece)

* **EDUCATION**

2009 PhD in Physical Chemistry

Department of Mechanical Engineering – University of Western Macedonia

Title of Thesis: “Gas Storage in Porous Media”

PhD Supervisor: Dr. A. Stubos (Director of Research, NCSR Demokritos, Greece)

2002 Bachelor in Chemistry

University of Ioannina, Chemistry Department, Ioannina, Greece

2002 Diploma in Enology

University of Ioannina, Chemistry Department, Ioannina, Greece

* **PREVIOUS POSITIONS**

2016 – 2020 Post-doc Research Assistant

Chemistry Department, Aristotle University of Thessaloniki, Thessaloniki (Greece)

2012 – 2014 Postdoctoral Researcher, NCSR Demokritos, Athens – Greece, Laboratory of Photoredox Conversion and Storage of Solar Energy, Research Project: Thales “NANOSOLCEL”

2011 – 2012 Postdoctoral Researcher, NCSR Demokritos, Athens – Greece, Environmental Research Laboratory, Research Project: Optimization of a novel method for the characterization of nanoporous carbon materials based on the combination of experimental and theoretical calculated isotherms

2010 – 2011 Postdoctoral Researcher, NCSR Demokritos, Athens – Greece, Environmental Research Laboratory, Research project: Transport phenomena in porous media

2006 – 2009 Research Assistant / Chemist, NCSR Demokritos, Athens – Greece, Environmental Research Laboratory, Research Project: FP6 Integrated Project Nesshy (Novel Efficient Solid Storage for Hydrogen) funded by the European Commission

2002 – 2003 Research Assistant / Chemist, NCSR Demokritos, Athens – Greece, Environmental Research Laboratory, Research Project: HYSTORY – Hydrogen storage in hydrides for safe energy systems

* **FELLOWSHIPS/AWARDS**

2016 – 2017 Scholarship of the State Scholarships Foundation for postdoctoral research

2014 Academy of Athens (award for best published paper)

2011 – 2012 Scholarship of the State Scholarships Foundation (2010) for postdoctoral research

2003 – 2008 Scholarship of the Institute of Nuclear Technology & Radiation Protection, National Centre for Scientific Research “DEMOKRITOS”

* **LANGUAGES**

English (Lower), French (basic)

* **REFEREE ACTIVITIES**

I serve as a regular referee in Elsevier Publisher (i.e. Journal of Crystal Growth)

* **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2002 – today Member, Association of Greek Chemists

* **RESEARCH INTERSTS**

Computational chemistry, gas storage in porous materials, adsorption of different gases on materials of tailored porosity, materials characterization, dye-sensitized solar cells, perovskite solar cells.

**• SCIENTIFIC TRACK-RECORD**

|  |
| --- |
| **17** Publications in International Peer Reviewed Journals  **1** book chapter (**Intech 2011**) *Grand Canonical Monte Carlo Simulations of Gas Adsorption in Carbon Nano pores*  **26** presentations in national or international conferences/symposia |

**Recent and relevant publications in the field of solar cells:**

1. K. O. Kosmatos, L. Theofylaktos, E. Giannakaki, D. Deligiannis, **M. Konstantakou**, T. Stergiopoulos, *Μethylammonium chloride: a key additive for highly efficient, stable, and up‐scalable perovskite solar cells* **Energy & Environmental Materials** 2 (**2019**) 79-92.
2. L. Theofylaktos, K. O. Kosmatos, E. Giannakaki, H. Kourti, D. Deligiannis, **M. Konstantakou**, T. Stergiopoulos, *Perovskites with d-block metals for solar energy applications* **Dalton Transactions** 48 (2019) 9516.
3. **M. Konstantakou**, D. Perganti, P. Falaras and T. Stergiopoulos, *Anti-Solvent Crystallization Strategies for Highly Efficient Perovskite Solar Cells* **Crystals** 7 (**2017**) 291.
4. **M. Konstantakou** and T. Stergiopoulos, *A critical review on tin halide perovskite solar cells* **Journal of Materials Chemistry** A 5 (**2017**) 11518-11549.
5. G. C. Vougioukalakis, **M. Konstantakou**, E. K. Pefkianakis, A. N. Kabanakis, T. Stergiopoulos, A. G. Kontos, A. K. Andreopoulou, J. K. Kallitsis and P. Falaras, *A Ruthenium-Based Light-Harvesting Antenna Bearing an Anthracene Moiety in Dye-Sensitized Solar Cells,* **Asian Journal of Organic Chemistry** 3 (**2014**) 953-962.
6. **M. Konstantakou**, P. Falaras and T. Stergiopoulos, *Blocking recombination in Ru(II) complex-sensitized solar cells by incorporating co-adsorbents as additives in the Co(II)/(III)-based redox electrolytes*, **Polyhedron** 118 (**2014**) 16760-16775.
7. **M. Konstantakou**, T. Stergiopoulos, V. Likodimos, G. C. Vougioukalakis, L. Sygellou, A. G. Kontos, A. Tserepi, and P. Falaras, *Influence of Fluorine Plasma Treatment of TiO2 Films on the Behavior of Dye Solar Cells Employing the Co(II)/(III) Redox Couple* **Journal of Physical Chemistry C** 118 (**2014**) 16760-16775.
8. T. Stergiopoulos, **M. Konstantakou** and P. Falaras, *Dye solar cells combining TiO2 surface-blocking organic sensitizer and solvent-free ionic liquid-based redox electrolytes*, **RSC Advances** 3 (**2013**) 15014-15021.
9. **M. Konstantakou**, N. Vaenas, N. Moustakas, V. Likodimos, A. Kontos, T. Stergiopoulos, A. Tserepi and P. Falaras, “*Tailoring the surface properties of TiO2 films with plasma treatment for efficient Dye-Sensitized Solar Cells based on the Co(II)/Co(III) redox shuttle*”, **E-MRS** **2013** **SPRING MEETING**, May 27-31, Strasbourg – France.