

CURRICULUM VITAE

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EDUCATION

Ph.D. in Inorganic Chemistry, Chemistry Department, University of Crete, Greece (2015)

M.Sc. in Inorganic Chemistry, Chemistry Department, University of Crete, Greece (2010)

B.Sc. in Chemistry, Chemistry Department, University of Crete, Greece (2007)

PROFESSIONAL EXPERIENCE AND APPOINTMENTS

10/2015 – present: Post-Doctoral Fellow, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece.

09/2014 – 12/2014: Visiting Researcher at the Interdisciplinary Center for Molecular Materials, Department of Chemistry and Pharmacy, Friedrich-Alexander University Erlangen-Nürnberg, Germany.

04/2010 – 05/2011: Research Associate, (FP7) BIOSOLENUTI «*BioInspired Solar Energy Utilization*», Chemistry Department, University of Crete, Greece.

07/2009 – 11/2009: Visiting Researcher at the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation, Athens, Greece.

MAIN RESEARCH INTERESTS

- Tetraazamacrocycles (e.g. porphyrins, phthalocyanines, boron-dipyrroin conjugates) and fullerene-based materials for energy conversion applications.
- Chemical functionalization of layered-transition-metal dichalcogenides.
- Supramolecular chemistry.
- Electron donor-acceptor hybrid materials, dye sensitized solar cells, catalysis.
- Spectroscopic, thermal characterization and study on the electronic, photophysical and electrochemical properties of photoactive materials.

EXTERNAL FUNDING

- 06/2021–08/2022: EPAnEK, Title: "Innovative Industrial Materials with Advanced Multifunctionality, Prolonged Lifetime and Improved Performance Against Environmental Conditions for Versatile Protective Equipment," Acronym: PROTECT, co-financed by Greece and the European Union, Funding Organization: NSRF 2014-2020
- 12/2019–05/2021: Human Resources Development, Education and Lifelong Learning, Supporting Researchers with Emphasis on Young Researchers - Round B, Title: "Chemically modified MoS₂ with organic motifs as electrochemical sensors for selective ion and (bio) molecule detection," co-financed by Greece and the European Union, Funding Organization: NSRF 2014-2020
- 10/2015–08/2017: IKY-SIEMENS, Title: "Supramolecular porphyrin-fullerene architectures as artificial photosynthetic systems," Funding Organization: IKY 2016/17
- 09/2011–09/2014: HERAKLEITUS II, Title: "Porphyrin-fullerene nanohybrids through oPPVs molecular wires. Supramolecular electron donor-acceptor systems for energy conversion applications," Funding Organization: NSRF 2007-2013
- 04/2010 – 05/2011: 7th Framework Program, Capacities/Research Potential, Title: "Bio-Inspired Solar Energy Utilization," Acronym: BIOSOLENUTI, Funding Organization: European Union's Research and Innovation. Role: Research associate

PROFESSIONAL AFFILIATIONS & ACTIVITIES

- Member of COST Action CM1202, Title: "*Supramolecular Photocatalytic Water Splitting (PerspectH2O)*", Funding Organization: EU FPH 2020, member of the Organizing Committee of the International Conference "*Bioinspired materials for solar energy utilization*", Crete, Greece, 2011, member of the Organizing

Committee of the Summer School "*Bioinspired materials for solar energy utilization*", Crete, Greece, 2011-2013, member of Society of Porphyrins and Phthalocyanines (SPP) and Greek Catalysis Society.

AWARDS AND DISTINCTIONS

- 09/2011 – 09/2014: Fellowship "BY EXCELLENCE" for the Ph.D. thesis, European Social Fund and National Resources (Greek Ministry of Education – HERAKLEITUS II Programme)
- 10/2015 – 08/2017: Postdoctoral IKY Fellowship of excellence for postgraduate studies in Greece – Siemens Programme, State Scholarships Foundation, Greece.

CONFERENCES & PUBLICATIONS

10 international and 2 national conferences, 4 invited talks, 17 peer-reviewed publications.

SELECTED PUBLICATIONS

1. "Ion-selective crown ether covalently grafted onto chemically exfoliated MoS₂ as biological fluids sensor," A. Stergiou, C. Stangel, R. Canton-Vitoria, R. Kitaura, N. Tagmatarchis, *Nanoscale* **13**, 8948 (2021). DOI: [10.1039/D1NR00404B](https://doi.org/10.1039/D1NR00404B)
2. "Carbon nanohorn/liposome systems: Preformulation, design and in vitro toxicity studies," N. Pippa, C. Stangel, I. Kastanas, E. Triantafyllopoulou, N. Naziris, D. Stellas, M. Zhang, M. Yudasaka, C. Demetzos, N. Tagmatarchis, *Mater. Sci. Eng. C* **105**, 110114 (2019). DOI: [10.1016/j.msec.2019.110114](https://doi.org/10.1016/j.msec.2019.110114)
3. "Electrostatic association of ammonium-functionalized layered-transition-metal dichalcogenides with an anionic porphyrin," R. Canton-Vitoria, C. Stangel, N. Tagmatarchis, *ACS Appl. Mater. Interfaces* **10**, 23476 (2018). DOI: [10.1021/acsami.8b08272](https://doi.org/10.1021/acsami.8b08272)
4. "Interfacing tetrapyrrolyl-C₆₀ with porphyrin dimers via π -conjugated bridges: Artificial photosynthetic systems with ultrafast charge separation," C. Stangel, F. Plass, A. Charisiadis, E. Giannoudis, G. Charalambidis, K. Karikis, G. Rotas, G. E. Zervaki, N. N. Lathiotakis, N. Tagmatarchis, A. Kahnt, A. G. Coutsolelos, *Phys. Chem. Chem. Phys.* **20**, 21269 (2018). DOI: [10.1039/C8CP03172J](https://doi.org/10.1039/C8CP03172J)

5. "A case study for artificial photosynthesis: Non-covalent interactions between C₆₀-dipyridyl and Zinc porphyrin dimer," C. Stangel, A. Charisiadis, G. E. Zervaki, V. Nikolaou, G. Charalambidis, A. Kahnt, G. Rotas, N. Tagmatarchis, A. G. Coutsolelos, *J. Phys. Chem. C* **121**, 4850 (2017). DOI: [10.1021/acs.jpcc.6b11863](https://doi.org/10.1021/acs.jpcc.6b11863)
6. "Benefits of using BODIPY–porphyrin dyads for developing deep-red lighting sources", M. D. Weber, V. Nikolaou, J. E. Wittmann, A. Nikolaou, P. A. Angaridis, G. Charalambidis, C. Stangel, A. Kahnt, A. G. Coutsolelos, R. D. Costa, *Chem. Commun.* **52**, 1602 (2016). DOI: [10.1039/c5cc06838j](https://doi.org/10.1039/c5cc06838j)
7. "Tuning the reorganization energy of electron transfer in supramolecular ensembles – metalloporphyrin, oligophenylenevinylenes, and fullerene – and the impact on electron transfer kinetics," C. Stangel, C. Schubert, S. Kuhri, G. Rotas, J. T. Margraf, E. Regulsk, T. Clark, T. Torres, N. Tagmatarchis, D. M. Guldi, A. G. Coutsolelos, *Nanoscale* **7**, 2597 (2015). DOI: [10.1039/C4NR05165C](https://doi.org/10.1039/C4NR05165C)
8. "Spider-shaped porphyrins with conjugated pyridyl anchoring groups as efficient sensitizers for dye-sensitized solar cells," C. Stangel, A. Bagaki, P. A. Angaridis, G. Charalambidis, G. D. Sharma, A. G. Coutsolelos, *Inorg. Chem.* **53**, 11871 (2014). DOI: [10.1021/ic502283d](https://doi.org/10.1021/ic502283d)
9. "Aqueous–Organic biphasic hydrogenation of trans-cinnamaldehyde catalyzed by Rhodium and Ruthenium phosphane-free porphyrin complexes", C. Stangel, G. Charalambidis, V. Varda, A. G. Coutsolelos, I. D. Kostas, *Eur. J. Inorg. Chem.* **2011**, 4709 (2011). DOI: [10.1002/ejic.201100668](https://doi.org/10.1002/ejic.201100668)