

PROFESSIONAL EXPERIENCE AND APPOINTMENTS

09/2018 – 12/2018: Student Internship, Institut Catalá d'Investigació Química (ICIQ), Organic Chemistry Sector, Tarragona, Spain

09/2019 – 07/2023: Ph.D. Candidate, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece

09/2023 – today: Post-Doctoral Fellow, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece

MAIN RESEARCH INTERESTS

- Synthesis of hybrid materials based on chemically functionalized carbon nanostructures and transition metal dichalcogenides (TMDs)
- Development of new methods for the chemical functionalization of TMDs
- Novel hybrid materials based on carbon nanostructures and graphene 2D materials as electrocatalysts for the oxygen evolution reaction (OER), the hydrogen evolution reaction (HER) and the oxygen reduction reaction (ORR)
- Spectroscopic, structural, electrochemical and thermal characterization of nanostructured hybrid materials

EXTERNAL FUNDING

- State Scholarship Foundation (IKY) scholarship «ERASMUS+ academic year 2018-2019» for student internship mobility abroad.
- Participant in “Advanced Materials and Devices” MIS 5002409 (NSRF 2014-2020, “Action for strategic development of Research and Technological Organizations – ΚΡΗΠΙΣ ΙΙ”) funded by the European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation.
- Participant in “Innovative Industrial Materials with Advanced Multifunctionality, Prolonged Lifetime and Improved Performance Against Environmental Conditions for Versatile Protective Equipment” with acronym “Protect” and project code: T2EDK-01316, funded by the European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH-CREATE-INNOVATE.

- Participant in “Functionalized two-dimensional transition metal dichalcogenides with organic photoactive components for energy applications” with acronym “FUN2DPHOTO” and project code: 2482, supported by the Hellenic Foundation for Research and Innovation (H.F.R.I.) under the “2nd Call for H.F.R.I. Research Projects to support Faculty Members & Researchers”.
- Participant in “Investigating rotary motion within a mechanically interlocked fullerene-nanobelt assembly” project under the “IKYDA 2020” program co-funded by State Scholarship Foundation (IKY) and German Academic Exchange Service (DAAD) in the framework of scientific collaboration between Greece and Germany.

CONFERENCES & PUBLICATIONS

8 international and 1 national conference, 17 peer-reviewed publications.

SELECTED PUBLICATIONS

1. **I. K. Sideri**, R. Arenal, and N. Tagmatarchis, “Covalently functionalized MoS₂ with dithiolenes”, *ACS Mater. Lett.* **2020**, *2*, 832; DOI: [10.1021/acsmaterialslett.0c00108](https://doi.org/10.1021/acsmaterialslett.0c00108)
2. **I. K. Sideri**, Y. Jang, J. Garcés-Garcés, A. Sastre-Santos, R. Canton-Vitoria, R. Kitaura, F. Fernández-Lazaro, F. D’Souza, and N. Tagmatarchis, “Unveiling the photoinduced electron-donating character of MoS₂ in covalently linked hybrids featuring perylenediimide”, *Angew. Chem. Int. Ed.* **2021**, *60*, 9120; DOI: [10.1002/anie.202016249](https://doi.org/10.1002/anie.202016249)
3. **I. K. Sideri**, G. Charalambidis, A. G. Coutsolelos, R. Arenal, and N. Tagmatarchis, “Pyridine vs imidazole axial ligand on cobaloxime grafted graphene: Hydrogen evolution reaction insights”, *Nanomaterials* **2022**, *12*, 3077; DOI: [10.3390/nano12173077](https://doi.org/10.3390/nano12173077)
4. **I. K. Sideri**, C. Stangel, A. Stergiou, A. Liapi, H. J. Ojeda-Galván, M. Quintana, N. Tagmatarchis, “Covalently modified MoS₂ bearing a Hamilton-type receptor for recognizing a redox-active ferrocene-barbiturate guest via multiple H-bonds”, *Chem. Eur. J.* **2023**, *45*, e202301474; DOI: [10.1002/chem.202301474](https://doi.org/10.1002/chem.202301474)
5. **I. K. Sideri**, R. Canton-Vitoria, H. J. Ojeda-Galvan, M. Quintana, N. Tagmatarchis, “Sustainable photocatalytic acylation of transition metal dichalcogenides with atom economy” *Small* **2024**, 2311045; DOI: [10.1002/smll.202311045](https://doi.org/10.1002/smll.202311045)