Curriculum Vitae

Amalia Rapakousiou

Post-Doctoral Researcher
Theoretical and Physical Chemistry Institute
National Hellenic Research Foundation
48, Vassileos Constantinou Avenue
Athens 11635, Greece

Tel: +30 210 7273825
Fax: +30 210 7273794
E-mail: arapak@eie.gr

EDUCATION

- PhD in "Engineering of Redox Nanomaterials", Institute of Molecular Sciences (I.S.M.), University of Bordeaux, France (2014).
- Master of Science in "Nanoscience and Life Science", Chemistry Department, University of Bordeaux, France (2010).
- Diploma in Chemistry, Chemistry Department, National and Kapodistrian University of Athens, Greece (2009).

PROFESSIONAL EXPERIENCE AND APPOINTMENTS

01.2021 – today:	Post-Doctoral Researcher, Principle Investigator, Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece.
12.2018 – 12.2020:	Postdoctoral Researcher, Laboratory of Coordination Chemistry (LCC) Institute, CNRS, Toulouse, France.
01.2017 – 12.2018:	Postdoctoral Researcher 'Juan de la Cierva' (J.D.C.), IMDEA Nanoscience, Madrid, Spain.
03.2015 – 07.2016:	Research staff, Graduate School of Science, University of Tokyo, Tokyo, Japan.
03.2015 – 03.2016:	Postdoctoral Researcher 'Japan Society for the Promotion of Science' (J.S.P.S), Graduate School of Science, University of Tokyo, Tokyo, Japan.
10.2011 – 12.2014:	PhD candidate, Institute of Molecular Sciences (I.S.M.), University of Bordeaux, Bordeaux, France.

MAIN RESEARCH INTERESTS

- Development, control and applications of nanomaterials and macromolecule-based nanocomposites.
- Macromolecules such as polymers and dendrimers with organometallic complexes and/or catalysts.
- Hybrid nanomaterials (2D nanosheets, 1D carbon nanotubes and metal nanoParticles) in view of applications in sensing, catalysis and energy.
- Electrochemistry, electrocatalysis.

EXTERNAL FUNDING

2021 – today: Project Title: «Modified carbon nanostructures and related 2D nanomaterials with small organic and coordination molecules as sustainable electrocatalysts» NANOElectroCAT, code 913, 'H.F.R.I.' (Hellenic Foundation of Research and Innovation).

2018 – 2020: Project Title: «Development of spin-crossover composites as thermal energy storage materials, one of the necessary developments, initiated by the Kyoto Protocol and in agreement with the future RT2020. Development of Polymer composites of spin-crossover coordination complexes», The Ministry of Higher Education, Research and Innovation, France.

2015 – 2016: Project Title: «Organic 2D click nanosheets at the liquid/liquid and air/liquid interface. Exploration of click nanosheets as sensors of heavy metal ions and Rhodamine-B», Japan Society for the Promotion of Science (J.S.P.S.), Japan.

AWARDS AND DISTINCTIONS

- Funding from 'H.F.R.I.' (Hellenic Foundation of Research and Innovation) for research project 'NANOElectroCAT' for the years 2021 – 2025.
- Research Scholarship 'Make-our-planet-great-again' M.O.P.G.A. 15 selected international laureates from "The Ministry of Higher Education, Research and Innovation", MESRI of France for the years 2019-2021.
- Research Scholarship 'Juan de la Cierva' (J.D.C.). Selected 3rd in Science and Technology of Materials scientific area from 'The Ministry of Science, Innovation and Universities' of Spain for the years 2017-2019.
- Research Scholarship 'Japan Society for the Promotion of Science' (J.S.P.S) of Japan for the year 2015 - 2016.
- European Research Scholarship '**Leonardo Da Vinci**' for the year 2009 - 2010.

CONFERENCES & PUBLICATIONS

Participation in **11** international conferences, in 6 of which as invited speaker, **36** publications in international peer-reviewed journals.

SELECTED PUBLICATIONS

1. "Spin crossover polymer composites, polymers and related soft materials", A. Enriquez-Cabrera, A. Rapakousiou, M. P. Bello, G. Molnár, L. Salmon, A. Bousseksou, *Coordin. Chem. Rev*, 419, 213396 (2020).
DOI: 10.1016/j.ccr.2020.213396
2. "Stronger aramids through molecular design and nanoprocessing", A. Rapakousiou, A. López-Moreno, B. Nieto-Ortega, M.M. Bernal, M. A. Monclús, S. Casado, C. Navío, L. R. González, J. P. Fernández-Blázquez, J. J. Vilatela, E. M. Pérez, *Polym. Chem.*, 11, 1489 (2020).
DOI: 10.1039/C9PY01599J
3. "Liquid/liquid interfacial synthesis of 'click' nanosheet", A. Rapakousiou, R. Shiotsuki, R. Sakamoto, R. Matsuoka, U. Nakajima, T. Pal, R. Shimada, A. Hossain, H. Masunaga, S. Horike, Y. Kitagawa, S. Sasaki, K. Kato, T. Ozawa, D. Astruc, H. Nishihara, *Chem. Eur. J.*, 23, 8443 (2017).
DOI: 10.1002/chem.201700201
4. "Click Co sandwich-terminated dendrimers as polyhydride reservoirs and micellar templates", A. Rapakousiou, C. Belin, L. Salmon, J. Ruiz, D. Astruc, *Chem. Comm.*, 53, 6267 (2017).
DOI: 10.1039/C7CC03311G
5. "Mixed-valent click intertwined polymer units containing biferrocenium chloride side chains form nanosnakes that encapsulate gold nanoparticles", A. Rapakousiou, C. Deraedt, H. Gu, L. Salmon, C. Belin, J. Ruiz, D. Astruc, *J. Am. Chem. Soc.*, 136, 13995 (2014).

DOI: 10.1021/ja5079267
6. "Multi-function redox polymers: Electrochrome, polyelectrolyte, sensor, electrode modifier, nanoparticle stabilizer and catalyst template", C. Deraedt, A. Rapakousiou, Y. Wang, L. Salmon, M. Bousquet, D. Astruc, *Angew. Chem., Int. Ed.*, 53, 8445 (2014).
DOI: 10.1002/anie.201403062
7. "Click dendrimers and triazole-related aspects: catalysts, mechanism, synthesis, and functions. A bridge between dendritic architectures and nanomaterials", D. Astruc, L. Liang, A. Rapakousiou, J. Ruiz, *Acc. Chem. Res.*, 45, 630 (2012).
DOI: 10.1021/ar200235m