CURRICULUM VITAE: Nita DRAGOE

Professor of Chemistry | University of Paris-Saclay

Current Position

Professor, Exceptional Class 2 (PR EX2)
University of Paris-Saclay, ICMMO (UMR 8182)

Executive Summary

Inorganic chemist specializing in materials chemistry with research and teaching experience in France, China, Japan, and Romania. My research focuses on the discovery and characterization of novel functional materials, including fullerene-based compounds, high-performance thermoelectrics (BiCuSeO), and high-entropy oxides (HEOx).

Professional Career & Key Dates

- **2025 – Present:** Professor, Exceptional Class 2 (PR EX2), University of Paris-Saclay
- **2016 – 2025:** Professor, Exceptional Class 1 (PR EX1), University Paris-Sud/Paris-Saclay
- **2010 – 2016:** Professor, 1st Class (PR1), University Paris-Sud
- **2004 – 2010:** Professor, 2nd Class (PR2), University Paris-Sud
- **2001 – 2004:** Associate Professor (Maître de Conférences), University Paris-Sud
- **2000 – 2001:** Lecturer (Kochi), Department of Applied Chemistry, University of Tokyo
- **1997 – 2000:** JST/CREST Postdoctoral Fellow, University of Tokyo
- **1996:** Ph.D. in Solid State Chemistry, Co-tutelle between University of Bucharest and University Paris-Sud

Research Leadership & Scientific Activities

Team Leadership: Co-responsible for the SP2M (Synthesis, Properties, and Modeling of Materials) team at ICMMO from 2014 to 2025, leading a group of approximately 30 permanent staff.

- Core Research Themes:
    - **High Entropy Oxides (HEOx):** Emerging field focused on entropy-stabilized materials with novel ionic conductivity and magnetic properties.
    - **Thermoelectrics:** Discovered the BiCuSeO system, now a globally recognized material with high ZT efficiency (ZT=1.4).
    - **Fullerenes:** Pioneered the synthesis of novel C60 dimers (C121, C122) and endohedral fullerenes (Ar@C60).

    - **Oxide Crystal Chemistry:** Synthesis and structural analysis of double perovskites and layered cobaltates.
- **Publications**
    - **Web of Science:** H-index 34, 124 publications, 6500 citations.

Teaching & Educational Responsibilities

- Core Courses: Crystallography, X-ray diffraction, and Solid-State Structure at L3, M1, and M2 levels.
- Program Development: Co-creator of the Master 2 'Functional Materials and Applications' (MFA) at Paris-Saclay.
- Digital Innovation: Mission Officer for the eCampus Paris-Saclay (Moodle platform) for the Faculty of Sciences since 2017.
- International Outreach: Visiting Professor at Riken, the University of Tokyo, Okayama University, and Beihang University (China).

Annex

I. Characteristic Publications

- High Entropy Oxides: Order emerging from disorder, Science, 366, 573–574 (2019).
- Thermoelectrics: BiCuSeO oxyselenides: new promising thermoelectric materials, Energy & Environmental Science, 7, 2900–2904 (2014).
- Ionic Conductivity: Room temperature lithium superionic conductivity in high entropy oxides, Journal of Materials Chemistry A, 4, 9536–9541 (2016).
- Magnetic Properties: Long-range magnetic ordering in rocksalt-type high-entropy oxides, Applied Physics Letters, 114, 122401 (2019).
- Fullerenes: First unsymmetrical bisfullerene, C121, Journal of the American Chemical Society, 123, 1294–1301 (2001).

II. Patents & Software

- Patents: Co-author of 4 patents (3 in Japan, 1 in France) related to fullerene synthesis and information storage devices.
- Software: Author of Yappari (v5.1), a suite for multiple datasets analysis in impedance spectroscopy, and Powder 4 for X-ray diffraction data processing. Some others are available at nitad54448.gitbub.io

III. Ph.D. Supervision

- Completed Theses: 12 doctoral dissertations directed or co-directed (including graduates now serving as Professors or CNRS Researchers).
- Ongoing Mentorship: Currently supervising 3 Ph.D. candidates in the fields of high-entropy oxides and functional materials.