

Simon HARRISSON

Directeur de Recherche (DR2), CNRS – LCPO, UMR 5629 – Université de Bordeaux / Bordeaux INP
Polymerization kinetics & mechanisms | Flow chemistry | Machine-learning-assisted optimization

Scientific Profile and Key Indicators

- > 100 peer-reviewed publications (31 since October 2022)
- 5598 citations | h-index: 44 (Google Scholar, 1 September 2026)
- 5 patents (2 licensed)
- 5 invited international lectures | 3 national invited lectures (since October 2022)
- 11 invited seminars (France & international institutions) (since October 2022)

Selected Distinctions and Invited Named Lectures

- Pregl Colloquium, Kemijski Institut, Ljubljana, Slovenia (Invited Lecture), 21 March 2024.
- INC Emergence International Laureate (2023)

Current Position

2022– Directeur de Recherche (DR2), CNRS – Team 'Polymerization Catalysis and Engineering', LCPO

Scientific Leadership

International: Co-chair, IUPAC Subcommittee on Polymerization Kinetics and Mechanisms (2021–); Chair, IUPAC Subcommittee on Polymerization Terminology (2026–); Titular Member, IUPAC Polymer Division (since 2025).

Coordination of international benchmarking studies (propagation kinetics, copolymerization kinetics, GPC precision round robin).

National: Treasurer, Groupe Français d'Études et d'Applications des Polymères (2021–); Member, GFP Bureau & Conseil d'Administration.

Conference organization: BPC2022 & BPC2026; GFP Colloque National 2023; Organizing Committee MACRO2028 (Strasbourg), preparation of candidature and liaison with IUPAC.

Research Project Leadership (2022–2026)

- PEPR DIADEM – AMETHYST: Scientific lead (LCPO); automated flow chemistry platform integrating ML for polymerization optimization.
- PEPR GreenFOAM & PHURIOUS: Scientific lead (LCPO); flow-based strategies for sustainable and functional polymers.
- ANR NovelIX: Scientific lead (LCPO); radical polymerization in flow with data-driven optimization.
- France Relance (Ophtalmic): Academic scientific lead; postdoctoral supervision (2022–2024).
- CIFRE PhD (Ophtalmic): Co-director (since 2025).

Technology Transfer (2022-2026)

- 5 patents; 2 licensed (thionolactone radical polymerization technology licensed to Ecolanka).
- EP22306210 – thermoresponsive polyproline materials; SynELP prematuration project.
- Structured industrial collaboration with Ophtalmic (postdoc recruitment, CIFRE).

Supervision and Training (2022-2026)

- 5 PhD students (2 completed; 3 ongoing; incl. 1 CIFRE, 1 co-supervision with CEA).
- 4 postdoctoral researchers (incl. industrial transfer to Ophtalmic).
- International visiting researcher supervision (University of the Basque Country, 2026).
- 11 contributed talks & 10 posters (self or students, 2022–2026).

Career Highlights

- DR2 CNRS (since 2022)
- Elected Member, Comité National de la Recherche Scientifique (Section 11, 2016–2021)
- Habilitation à Diriger les Recherches (2016)

Selected Key Publications

- Gody, G.; Zetterlund, P. B.; Perrier, S.; Harrisson, S.
The limits of precision monomer placement in chain growth polymerization.
Nature Communications, 2016, 7, 10514. (178 citations, Google Scholar, September 2026)
- Harrisson, S.
The downside of dispersity: why the standard deviation is a better measure of dispersion in precision polymerization.
Polymer Chemistry, 2018, 9, 1366–1370. (103 citations)
- Badreldin, M.; Le Scouarnec, R.; Lecommandoux, S.; Harrisson, S.; Bonduelle, C.
Memory Effect in Thermoresponsive Proline-Based Polymers.
Angewandte Chemie International Edition, 2022, 61, e202209530. (32 citations)
- Harrisson, S.; Whitfield, R.; Anastasaki, A.; Matyjaszewski, K.
Atom Transfer Radical Polymerization.
Nature Reviews Methods Primers, 2025, 5, 2. (89 citations)
- Clothier, G. K. K.; Taton, D.; Harrisson, S.
Exploiting machine learning and automated synthesis in continuous flow for process optimization of the organocatalyzed ring-opening polymerization of L-lactide.
ACS Polymers Au, 2025, 5, 603–612 (8 citations).