

Barbara LONETTI

CNRS Research Scientist,

SOFTMAT, CNRS UMR 5623, Université de Toulouse, France

barbara.lonetti@utoulouse.fr

Biography

- 2008–Present: CNRS Research Scientist (IMRCP Laboratory, then SOFTMAT). *Habilitation à Diriger des Recherches* (HDR) obtained in 2024.
- 2005–2008: Postdoctoral Researcher at the Jülich Research Centre, IFF Institute, Germany.
- 2004–2005: Postdoctoral Researcher at the Microfluidics, MEMS, and Nanostructures Laboratory, ESPCI, Paris.
- 2001–2004: PhD in Chemistry (Specialization: Supramolecular Chemistry) at the University of Florence, Italy (Thesis advisors: P. Baglioni).

Administrative Responsibilities

- 2022–Present: Co-Head of the “Porous Media and Colloids” theme, Fermat Federation.
- 2015–Present: Secretary of the French Group for Polymer Studies & Applications (SO Section).

Research and Publications

Investigating the link between chemical properties, macromolecular interactions, and supramolecular organization to control self-assembly and create innovative nanomaterials. Focus areas include:

- Coupling polymers and lipids to develop hybrid lipid-polymer membranes.
- Impact of copolymer composition profiles on their self-assembly properties.
- Study of organic/inorganic hybrid materials.

To date: 54 publications, 2 conference proceedings, 1 book chapter; 57 oral presentations; supervision of 9 PhD theses (4 ongoing).

Last 5 articles

[1] Protein Amyloid and Synthetic Polymer Self-assemblies: Similar Challenges for their preparation associated with shared properties B. Lonetti et al. [Biomacromolecules 2026 27 \(2\), 983-1007](#)

[2] Easy reversible clustering of gold nanoparticles via pH-Induced assembly of PVP-b-PAA copolymer, M. Yon et al. [Journal of Colloid and Interface Science, 2025, 679, 9;](#)

[3] Characterization of Polymer Nanoparticles: An Educational Case Based on PEO–PCL Self-Assemblies Illustrating the Pitfalls to be Avoided. S. Gineste et al. [Biomacromolecules, 2025, 26, 3552](#) ;

[4] Coumarin-poly(2-oxazoline)s as synergetic and protein-undetected nanovectors for photodynamic therapy D. Heaugwane et al. [International Journal of Pharmaceutics, 2024, 658, 124186](#) ;

[5] Morphology and thermal transitions of self-assembled NIPAM-DMA copolymers in aqueous media depend on copolymer composition profile, B. Farias-Mancilla et al. [Journal of Colloid and Interface Science, 2024, 662, 99.](#)