

## RESEARCH FELLOWSHIP

Title: [Hydrophobic eutectic solvents, their gels and cellulose hybrid materials for surface water remediation](#)

Location: Department of Chemistry, Materials and Chemical Engineering "G. Natta", [Politecnico di Milano](#)

Duration: 12 months

Expected start date: 01.03.2024

Application deadline: 26.01.2024

Description:

The research project is in the framework of the PRIN 2022 PNRR project "POSEIDON". The project will explore the use of hydrophobic eutectic solvents (HES), hydrophobic eutectogels (HEG) and HES-loaded cellulose nanosponges in liquid-liquid and solid-liquid microextraction techniques towards contaminants of industrial interests from model samples of surface water. The research plan will include a multidisciplinary characterization of the prepared materials and a detailed study of the intermolecular interactions that are established among the components of the material and the target contaminants, in order to rationalize the performance in terms of affinity and selectivity.

A Ph.D. or equivalent in chemistry or chemical engineering or related disciplines, is required. Desirable skill sets include familiarity with modern high-field NMR, strong motivation for sustainable chemistry projects and enthusiasm.

For detailed info and application instructions, please visit <https://www.polimi.it/personale-docente/lavorare-al-politecnico/bandi-per-assegna-di-ricerca/a-r-18370>.

For further information, please contact Maria Enrica Di Pietro ([mariaenrica.dipietro@polimi.it](mailto:mariaenrica.dipietro@polimi.it)).