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Fakulteta *za kemijo*
in kemijsko tehnologijo

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VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI / INVITATION TO THE
LECTURE WITHIN DOCTORAL PROGRAMME IN
CHEMICAL SCIENCES

Prof. Paola Calza

Department of Chemistry, University of Turin, Turin, Italy

z naslovom / title:

**Different strategies to unravel the occurrence
and fate of contaminants of emerging concern in
aquatic systems**

**v sredo, 3. 5. 2023 ob 15. uri /
on Wednesday, 3. 5. 2023 at 15.00**

**v predavalnici 1 v 1. nadstropju Fakultete za kemijo in
kemijsko tehnologijo, Večna pot 113 / in lecture room 1,
1st floor at the Faculty of Chemistry and Chemical
Technology, Večna pot 113**

Vljudno vabljeni! | Kindly invited!

Abstract:

Nowadays, the contamination of water resources is becoming a key issue and monitoring of water quality and its toxicological load is mandatory to guarantee the consumption of pure water to citizens. The release of natural and manufactured substances in the aquatic environment is affecting the quality of water bodies, with Contaminants of Emerging Concern (CECs) being one of the main issue. Therefore, there is an urgent need for a better understanding of their environmental occurrence, fate, exposure-associated risks, and degradation in order to properly regulate them. The broad spectrum of possible compounds coupled with their presence in the aquatic sector at low concentration level makes their study particularly challenging. Within this scenario, possible strategies to address this puzzling issue will be presented, paying particular attention to three main goals:

- 1) Evaluation of freshwater quality through large-scale targeted monitoring assessments;
- 2) Selection of contaminant of particular concern and study of their environmental fate;
- 3) Search for new potentially hazardous pollutants *via* non-target screening evaluation.

The monitoring process had involved not only chemical analyses using high resolution techniques, but was also combined with laboratory simulation and modelling processes aimed at fully assessing the fate of pollutants.