

Colloquium

Towards enzymatic PET degradation

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Human civilization has created plastics. Thanks to their excellent material properties, plastics are a success story. Today, however, it is becoming increasingly clear that plastics also pose a threat to life on earth. Plastic waste and microplastics can now be found in all habitats worldwide. It is estimated that the global average human ingests 0.1-5 g of microplastics per week via various exposure pathways,^[1] i.e., we eat a credit card every week, in whole or at least in part...

The seminar will report on the toxicity of PET (polyethylene terephthalate) nanoparticles,^[2] on the NMR analysis of a PET-degrading enzyme^[3] and on the use of such enzymes for PET recycling.^[4]

References:

- [1] K. Senathirajah et al. (2021) J. Hazard. Mat. 404B, 124004.
- [2] N. Bashirova et al. (2023) Scientific Reports 13, 1891.
- [3] P. Falkenstein et al. (2023) ACS Catalysis 13, 6919-6933.
- [4] P.K. Richter et al. (2023) Nature Communications 14, 1905.

Friday, Dec 29th 2023

04:00 PM (Tea / Coffee 03:45 PM)

Auditorium, TIFR-H