



Hong Kong Branch Seminar Series

Marine Environmental Pollution



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Title: Low-cost and rapid screening of selected environmental contaminants in complex sample matrices via molecular imprinting

Abstract: The design and synthesis of biomimetic receptors capable of host-guest recognition similar to antibody-antigen interactions have been intensely studied for decades. To this end, molecular imprinting of synthetic polymers has become a technique increasingly adopted for the production of artificial macromolecular receptors for biomedical, food safety surveillance and environmental monitoring applications. Molecular imprinting refers to the induction of highly specific binding sites for target analytes in synthetic polymers by template-directed cross-linking of functional monomers. Molecularly imprinted polymers have been widely utilized as smart sorbents for the selectively extraction of target analytes. By incorporating appropriate molecular signal transduction mechanisms into the imprinted binding sites, molecularly imprinted materials can also be converted into rapid screening tools for selected biomarkers and environmental contaminants. Over the years, our research team have been exploring various strategies to fabricate molecularly imprinted chemosensors, including those for non-polar organic contaminants which pose specific challenge to molecular imprinting as they generally possess minimal affinity to most functional monomers. In this talk, we will provide an overview of the molecular imprinting technology and an introduction to some of our recent work.

16 October 2020 (Friday) | 15:00-16:00 pm (GMT +8)



<https://hkust.zoom.us/j/94996257393>

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