SÉMINAIRE DU LABORATOIRE PHENIX

Acid-responsive aqueous biphasic system for metal separation

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18th March 2024, 10h **24-34 309**

Effective and affordable waste management lies at the core of the circular economy concept. In recent years, ionic liquids (ILs) attracted interest in the field of metal extraction as an alternative medium for solvent extraction processes. However, several factors limit the application of ILs, namely their viscosity and the incorporation of fluorinated moieties which increases their price, toxicity and solubility in inorganic acids. Some of these issues could be overcome through the application of acidic aqueous biphasic systems (AcABS) for metal extraction. AcABS are composed of an IL, an inorganic acid, and water, as the inorganic salt in traditional ABS is replaced by the acid used to leach the metals. In this talk, I will provide an overview of metal separation in AcABS and how the recent research at PHENIX on the characterisation of interfaces in ABS could be applied to such systems.