

Frontier Chemistry Center フロンティア化学教育研究センター

演題: Old dogs, New tricks: New Horizons in Group-1 Metal Chemistry and Applications in Sustainable Synthesis

講 師: Prof. Erli Lu

Newcastle University, UK

日時: 2024年3月15日(金) 10:00~11:30

場 所: ICReDD 棟 4階 ICReDD ホール A

共 催:北海道大学化学反応創成研究拠点 (WPI-ICReDD)

要 旨:



Alkali metals (Li to Cs) has a long history and are widely applied. However, our understanding of their fundamental chemistry is far from well-developed. Our research focuses on two new frontiers:

(1) Metal identity tuned reactivity in organo-alkali metal complexes:

Organolithium and organosodium complexes have been considered as featuring similar, if not identical, reactivity pattern. For the first time, we break the paradigm by reporting several "Na-only" reactivities.

(2) New alkali metal chemistry in solid-state:

Utilizing mechanochemistry method, we unlocked a new class of alkali metal reagents: Room-temperature Stable Electride (RoSE), and explored their applications in solvent-free organic synthesis.

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