GTR ORGANIC SEMINAR

New Carbyne Transfer in Organic Synthesis



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The art of organic synthesis and reaction discovery relies on logic-guided thought processes that often involve hypervalent carbon reactive species and their corresponding stabilized equivalent forms. However, not all of the possible carbon reactive intermediates and their reactivity rules have attracted the same attention by the synthetic community. This is mainly because of the perception of the lack of synthetic utility and importantly, because of the challenges associated with controlling its extreme reactivity and lack of efficient sources.

In this lecture, I will show how the catalytic generation of conceptually-novel carbyne equivalents, enabled the discovery of new carbon



reactivity towards C–H and C–C bonds. The metal or photocatalytic activation of tailored sources revealed new reactivity rules at carbon that have been under-appreciated, not only in the design and discovery of new chemical reactions, but also in their use to build molecular complexity through unexplored disconnection approaches and late-stage functionalization of medically relevant agents.

16:30 – 18:00, Thu., 4th July, 2024 El創発工学館2F Fujiホール(北部生協に隣接する新館)



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