הפקולטה לכימיה ע"ש שוליך
טכניון – מכון טכנולוגי לישראל

Faculty of Chemistry
SCHULICH
Technion, Israel Institute of Technology

David Ginsburg Memorial Colloquium

Professor Ryan Gilmour

Institute for Organic Chemistry, Westfälische Wilhelms-Universität Münster, Münster, Germany

"Physical Organic Principles in Selective Reaction Design"

Thursday, November 10, 2022 at 14:00

Lecture Hall No. 1

Gathering will be held next to the lecture room and refreshments will be served before the Colloquium

Abstract

Physical Organic Principles in Selective Reaction Design

One of the greatest challenges facing organic chemistry is the synthesis of function, and so a central theme in the Gilmour Laboratory is molecular design. The ability to construct predictably functional molecules requires the conception of systems with defined properties. As such any process must logically commence with a process of molecular design. Research in our laboratory is broadly based on leveraging physical organic principles to design novel materials with predictable conformational behaviour and/or reactivities in 2D and 3D space. In this lecture, advances in *contra*-thermodynamic $E \rightarrow Z$ isomerization of alkenes via energy transfer catalysis will be discussed together with our latest contributions to main group catalysis-enabled selective fluorination and glycochemistry.

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