

Einladung

Im Rahmen der gemeinsamen Kolloquien der Fakultät für Chemie und Chemische Biologie der Technischen Universität Dortmund hält

Herr Prof. Dr. Andrei K. Yudin

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einen Vortrag mit dem Thema:

Isoreactivity in Chemistry

Contemporary synthetic strategies are increasingly organized around activation modes such as transition metal catalysis, electrochemistry, and photocatalysis, among others, which serve as conceptual drivers. While powerful, this focus implicitly treats activation as the primary objective of chemical innovation. In this talk, I argue for a broader perspective based on isoreactivity, in which elementary steps and their relationships, rather than modes of activation, form the fundamental organizing principle. Isoreactivity describes contexts where distinct sub-structures in elementary steps can be replaced while maintaining elementary step viability. More broadly, this perspective points toward an organizing framework for chemical reactions grounded in recurring patterns across elementary steps.

References

- (1) Cordell, M. and Yudin, A. K. "Isoreactivity in Chemistry," *Chem* **2025**, *11*, 102825;
- (2) Brien, C. and Yudin, A. K. "Chemical reactivity from the perspective of enthalpic coupling," *Nature Synth.* **2026**, *5*, 321;
- (3) Yudin, A. K. "Space, Energy, and Synthetic Half-Reactions," *Chem. World* **2021**, *18*, 5;
- (4) Yudin, A. K. "Synthetic Half-Reactions," *Chem. Sci.* **2020**, *11*, 12423.

Zeit: Freitag, 09.10.2026, um 14.15 Uhr

Ort: Hörsaal 2, Chemiegebäude, Campus Nord

Im Anschluss an den Vortrag findet eine Nachsitzung statt.

Für die Dozenten der Chemie
Im Auftrag des Dekans

Betreuer: Prof. Dr. M. Hansmann