

UNIVERSITY OF RHODE ISLAND
Department of Chemistry
SEMINAR

Room 105 Beupre Center
2:00 p.m., Wednesday, February 5, 2020

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“Stories of the Trifluoromethyl Group”

HOST

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Stories of the Trifluoromethyl Group

Fang Wang

The trifluoromethyl group is a prototypical structural unit in fluorine chemistry. An in-depth understanding of this moiety is essential for exploring many other topics in the field. Despite the well-documented ability of the trifluoromethyl group to alter the chemical, physical, and biological properties of compounds, the nature of the trifluoromethyl anion, a key reactive intermediate for nucleophilic trifluoromethylation, was long misunderstood in the literature. For more than six decades, the trifluoromethyl anion was widely believed to be transient in solution. Is this claim even true? In this talk, the mechanistic aspects of nucleophilic trifluoromethylation reactions will be discussed. Applications of the trifluoromethyl group in improving the properties of functional molecules will also be presented.