復旦大學

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（Fudan Academic Frontier Forum）系列报告

学科进展系列报告

Real-Time Tracking of the Entangled Pathways in the Multichannel Photodissociation of Acetaldehyde: Roaming or Not?

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时间：2019年11月27日（星期三） 14:00-15:30

地点：复旦大学江湾校区化学楼A3030室

摘要：

Roaming mechanism, an unconventional reaction path, was discovered more than a decade ago in the studies of formaldehyde photodissociation, $H_2CO \rightarrow H_2 + CO$. Since then, observations of roaming have been claimed in numerous photochemical processes. A closer examination of the presented data, however, revealed that evidence for roaming are not always unequivocal, and some of the conclusions could be misleading. In this talk I will present an in-depth, joint experimental and theoretical study of the title reaction. By tracking the time-evolution of the pair-correlated product state distributions, we decipher the competing, interwoven reaction pathways that lead to the radical ($CH_3 + HCO$) and molecular ($CH_4 + CO$) channels. Possible roaming pathways are then elucidated and a more precise descriptor of the roaming phenomenon delineated.

简介：

刘国平院士是国际著名的化学反应动力学专家，在态-态反应动力学、选键以及立体化学方面取得了丰硕成果，在探讨反应微观机理方面被公认为结合交叉分子束及激光光谱学之先驱者之一，设计研发了时间切片离子速度成像技术并首次应用到交叉分子束研究中，极大地促进了分子反应动力学的发展。是美国物理学会会士，英国化学学会会士，发展中国家科学院院士，欧洲科学院院士，并获得德国洪堡研究奖等。

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