学 术 报 告

State Key Laboratory of Chemical Resource Engineering

报告名称：

Chloride Accelerated Copper-Fenton Chemistry: Insights, Applications and Implications

报告人：张翊 研究员

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时间：2016年11月22日 下午 13:00

地点：科西 302

张翊 研究员，现任卡普顿大学 Verschuren 研究中心纳米技术应用的研究主席，致力于纳米技术和纳米材料在健康和环境领域中的应用研究。本科毕业于四川农业大学，后来在加拿大滑铁卢大学取得化学博士学位，此后先后在滑铁卢大学生物系和哈佛大学应用科学与工程学院进行博士后训练，近年来，他在 *Journal of the American Chemical Society*，*Langmuir*，*Analytical Chemistry*发表了40余篇研究性文章，最近五年的引用达700次左右，总的H因子达到17。

报告简介：

Since its discovery in the late 1800's, the Fenton reaction, a powerful oxidizing system of catalytic Fe(II) and hydrogen peroxide has been found to be a ubiquitous process in natural biological systems. Although the exact reaction mechanism has remained elusive, Fenton and Fenton-like chemistry (defined as a reduced metal with an oxidant similar to H_2O_2) has been harnessed in organic synthesis and the treatment of wastewater. In this talk, I will share with you my lab's recent discovery that the Cu-based Fenton reaction can be dramatically accelerated by halide ions (Chloride-accelerated Cu-based Fenton or CA-Cu-Fenton), especially chloride and bromide. Further, the application of CA-Cu-Fenton chemistry for ultrasensitive chemical sensing and immunoassays will be presented and its wide implications in biomedical and materials engineering will be discussed.

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