

# 平成 29 年度第 1 回 VBL セミナー

## 1<sup>st</sup> VBL Seminar, 2017

日時：平成 29 年 6 月 29 日（木）14 時 30 分～16 時 00 分

場所：名古屋大学 VBL4 階セミナー室

講師：Jiangtao Xu 特任准教授

（VBL 外国人客員教員、University of New South Wales（豪州））

題目：PET-RAFT for Advanced Polymer Synthesis

**要旨：** PET-RAFT (photoinduced electron/energy transfer - reversible addition/fragmentation chain transfer) technology is a living radical polymerization methodology controlled by visible light and (near) IR light, which merges the traditional RAFT polymerization with photoredox catalysis. In this technology, ppm amount of photoredox catalyst is employed to catalyze RAFT agent and generate radicals for subsequent polymerization, instead of external radical initiator in the traditional RAFT method. The RAFT agent plays the role of initiator, chain transfer agent and termination agent. Although slight modification to RAFT polymerization was made, it brings many “green” and significant attributes to living radical polymerizations, including: (1) low energy consumption and mild reaction conditions, (2) spatial and temporal control on radical polymerization, (3) high oxygen tolerance, (4) versatile photocatalysts and (5) selective polymerization activation. In this talk, these benefits from PET-RAFT technology will be summarized and demonstrated by our recent results. This technology is contributing to the development of green chemistry and sustainable polymer manufacturing chemistry, but also providing opportunities for the innovation of new methods of organic and polymer synthesis.

問い合わせ先：

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