项目名称：生命元件的化学重塑与功能研究

提名者：河南省教育厅

提名等级：省自然科学奖，二等奖

代表性论文：

[1] Zhu WY#, Wang HL#, Li XH, Tie WH, Huo BB, Zhu AL; **Li LJ.\*** Amplification, Enrichment, and Sequencing of Mutagenic Methylated DNA Adduct through Specifically Pairing with Unnatural Nucleobases. *J. Am. Chem. Soc.* **2022**, *144*, 20165-20170.

[2] Zhu AL#, Li X#, Bai L#, Zhu G, Guo Y, Lin J, Cui Y, Tian G, Zhang L, Wang J, Li DX\*, **Li LJ.\*** Biomimetic α-selective Ribosylation Enables Two-step Modular Synthesis of Biologically Important ADP-ribosylated peptides. *Nat. Commun.* **2020**, *11*, 5600.

[3] Zhang B, Wang Y, Huang S, Sun J, Wang M, Ma W, You Y, Wu L, Hu J, Song W, Liu X, Li S, Chen H, Zhang G, Zhang L, Zhou DM\*, **Li LJ,\*** Zhang X\*, Photoswitchable CAR-T Cell Function In Vitro and In Vivo via a Cleavable Mediator. *Cell Chem. Biol.* **2021**, *28*, 60-68.

[4] Wang HL#, Wang LY#, Ma NN#, Zhu WY, Huo BB, Zhu AL, **Li LJ.\*** Access to Photostability-Enhanced Unnatural Base Pairs via Local Structural Modifications. *ACS Synth. Biol.* **2022**, *11*, 334-342.

[5] Huo BB, Zhang XG, Wang C, Wang HL, Zhu GM, Zhu WY, Zhu AL, Mei H, **Li LJ.\*** Mechanistic Insight into the Photoinduced Damage of an Unnatural Base Pair. *Chem. Eur. J.* **2022**, *28*, e202201730.

[6] Zhu AL,\* Xing XF, Wang SL, Yuan DH, Zhu GM, Geng MW, Guo YY, Zhang GS, **Li LJ.\*** Multi-component Syntheses of Diverse 5-Fluoroalkyl-1,2,3-triazoles Facilitated by Air Oxidation and Copper Catalysis. *Green Chem.* **2019**, *21*, 3407- 3412.

[7] Lingjun Li\*, Shengqiang Ding, Yanping Yang, Anlian Zhu, Xincui Fan, Mengchao Cui\*, Changpo Chen, Guisheng Zhang\*. Multi-component Aqueous Synthesis of Iodo-1,2,3-triazoles: A Single-step Model for Iodine and Fluorescent Dual-modification of Free Peptide. *Chem. Eur. J.*, **2017**, *23*, 1166-1172.

[8] **Li LJ,\*** Hao GL, Zhu AL, Fan XC, Zhang GS, Zhang LH, Copper(I)-Catalyzed Three-Component Domino Process: Assembly of Complex 1,2,3-Triazolyl-5-Phosphonates from Azides, Alkynes, and H-Phosphates, *Chem. Eur. J.*, **2013**, *19*, 14403-14406.

主要完成人：李凌君、周德敏、李祥、张博、王红磊、朱吾元

主要完成单位：河南师范大学、北京大学、香港大学、中国医学科学院北京协和医院