《绿色高效调控串联反应精准合成杂环研究》公示内容

由黄超、刘腾完成的《绿色高效调控串联反应精准合成杂环研究》拟提名2024年度云南省自然科学奖项目，现将该项目的基本情况公示如下：

一、项目名称

绿色高效调控串联反应精准合成杂环研究。

二、拟提名等级

拟提名云南省自然科学奖三等奖。

三、主要论文专著目录

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 序号 | 作者 | **题目** | **期刊** | **他引总次数** | **影响因子** | **分区(大类)** |
| 1 | Bai, H. R.; Sun, R. R.; Liu, S. T.; Yang, L. J.; Chen, X. B.;\* **Huang, C\*(黄超)** | Construction of Fully Substituted 2-Pyridone Derivatives via Four-Component Branched Domino Reaction Utilizing Microwave Irradiation | *Journal of Organic Chemistry* | 15 | 4.354 | 二区 |
| 2 | **Teng Liu(刘腾)**, Yongqin Li, Feixiang Cheng, Xianfu Shen, Jianjun Liu, Jun Lin\* | Highly Chemo- and Regioselective C-P Cross-Coupling Reaction of Quinone Imine Ketals with Ar2P(O)H to Construct *Ortho*-amino Triarylphosphine Derivatives | *Green Chemistry* | 10 | 10.182 | 一区 |
| 3 | Shitao Liu, Jisen Li, Junjie Lin, Fu-Jun Liu, **Teng Liu\*(刘腾)** and **Huang, C\*(黄超)** | Substituent-controlled Chemoselective Synthesis of Multi-substituted Pyridones via One-pot Three-component Cascade Reaction | *Organic & Biomolecular Chemistry* | 10 | 3.876 | 三区 |
| 4 | **Teng Liu\*(刘腾)** , Jianjun Liu, Shubiao Xia, Jie Meng, Xianfu Shen, Xiufang Zhu,**\*** Wenchang Chen, Chengke Sun, Feixiang Cheng**\*** | Catalyst-Free 1,6-Conjugate Addition/Aromatization/Sulfonylation of *para*-Quinone Methides: Facile Access to Diarylmethyl Sulfones | *ACS Omega* | 30 | 3.512 | 三区 |
| 5 | **Huang, C\*(黄超)** Guo, J. H.; Fu, H. M.; Yuan, M. L.; Yang, L. J. | Facile synthesis of 4-quinolone derivatives via one-pot cascade reaction under transition-metal-free conditions | *Tetrahedron Letters* | 14 | 2.415 | 四区 |
| 6 | Bai, H. R.; Liu, F. J.; Wang, X. J.; Wang, P.; **Huang, C\*(黄超)** | Three-Component One-Pot Approach to Highly Efficient and Sustainable Synthesis of the Functionalized Quinolones via Linear/Branched Domino Protocols, Key Synthetic Methods for the Floxacin of Quinolone Drugs | *Acs Omega* | 6 | 3.512 | 三区 |
| 7 | Shuang Wang, Jun-Jie Lin, Xin Cui, Jing-Peng Li, **Huang, C\*(黄超)** | Controllable Synthesis of Two Isomers 4H-Chromene and 2,8-Dioxabicyclo[3.3.1]nonane Derivatives under Catalyst-Free Conditions | *Journal of Organic Chemistry* | 3 | 4.354 | 二区 |
| 8 | **黄超**，王兴红，刘接卿，唐燕琼等 | **黄超**，王兴红，刘接卿，唐燕琼等著. 龙血竭研究与开发，科学出版社，**2018.10 ISBN-978-7-03-056954-7** | *科学出版社* |  |  |  |
| 9 | **Huang, C\*(黄超)** Yin, Y. Q.; Guo, J. H.; Wang, J.; Fan, B. M.; Yang, L. J.\* | A facile synthesis of beta-amino carbonyl compounds through an aza-Michael addition reaction under solvent-free conditions | *Rsc Advances* | 13 | 3.361 | 三区 |
| 10 | Bai, H. R.; Sun, R. R.; Chen, X. B.; Yang, L. J.; **Huang, C\*(黄超)** | Microwave-Assisted, Solvent-Free, Three-Component Domino Protocol: Efficient Synthesis of Polysubstituted-2-Pyridone Derivatives | *Chemistryselect* | 7 | 2.109 | 四区 |
| 11 | **Teng Liu\*(刘腾)**  , Yanqiong Zhang , Rong Yu , Jianjun Liu, Feixiang Cheng\* | An Alternative Metal-Free Aerobic Oxidative Cross-Dehydrogenative Coupling of Sulfonyl Hydrazides with Secondary Phosphine Oxides | *SYNTHESIS-STUTTGART* | 8 | 3.157 | 三区 |
| 12 | Weiqiang Li, Qin Wu, Genrui Xu, Yinjing Sun, **Huang, C\*(黄超)** and **Teng Liu\*(刘腾)** | A Practical Synthesis of N-aryl/N-alkyl 4-Pyridones under Continuous Flow Technology | *Asian Journal of Organic Chemistry* | 1 | 3.319 | 三区 |
| 13 | Sun, R. R.; Guo, J. H.; Yang, C.; Yang, L. J.\*; **Huang, C\*(黄超)** | Synthesis and Antitumor Evaluation of Novel N-substituted Norcantharidin Imidazolium Derivatives | *Current Organic Synthesis* | 4 | 1.975 | 四区 |
| 14 | Jingpeng Li, Shuang Wang, Genrui Xu, Xin Cui, Boqin Zi, **Teng Liu\*(刘腾)**  and **Huang, C\*(黄超)** | Switchable Synthesis of Cyclohexanedione-Fused 2,8-Oxaza/2,8-Dioxa Bicyclo[3.3.1]nonanes and 4-Substituted 4H-Chromenes Via Tunability of the Deamination/Dehydration Process | *Asian Journal of Organic Chemistry* | 5 | 3.319 | 三区 |
| 15 | Li, J. S.; Duan, W. W.; Pan, X. X.; Ye, Y. Q.; **Huang, C\*(黄超)** | Microwave Irradiation Tandem Hydroamination and Oxidative Cyclization of Natural Amino Acids with Diethyl Acetylenedicarboxylate for Functionalized Pyrrole Derivatives | *Chemistryselect* | 2 | 2.109 | 四区 |
| 16 | 林俊洁, 王爽, 李伟强, 崔鑫, **黄超\*** | 微波辅助无催化剂高效串联环化合成吡啶[2,3⁃d]嘧啶衍生物 | *高等学校化学学报* | 0 | 0.65 | 四区 |
| 17 | Fu, H. M.; Wang, H. B.; Yang, L. J.; Yang, W. R.;\* **Huang, C.\* (黄超)** | An Efficient Solvent- and Catalyst-Free Synthesis of Bicyclic Pyridones with High Molecular Diversity via Cascade Reaction | *Heterocycles* | 0 | 0.831 | 四区 |
| 18 | Xin Cui, Jun-Jie Lin, Shuang Wang, Jing-Peng Li, Xian-Song Xia, **Chao Huang\*(黄超)**. | Electronic effect control of regioselectivity in the Michael-Addition inspired cascade reaction of 1,3-dimethyl-6-amino-uracil and 2-hydroxychalcones | *Tetrahedron Letters* | 3 | 2.415 | 四区 |
| 19 | **Teng Liu\*(刘腾)** ; He, Chixian; Wang, Fan; Shen, Xiang; Li, Yongqin; Lang, Man; Li, Guijun; **Huang, C\*(黄超)**; Cheng, Feixiang\* | Organocatalyzed [2+2] Cycloaddition Reactions between Quinone Imine Ketals and Allenoates | *SYNTHESIS-STUTTGART* | 2 | 3.157 | 三区 |
| 20 | Qin Wu, Shuang Wang, Jingpeng Li, Weiqiang Li, Minghong Chen\* and **Huang, C\*(黄超)** | Cascade Reaction by I2/Base-Promoted Synthesis of Chromeno[3,4-c] pyrrol-4(2H)-ones from 2-Hydroxychalcones and β-Enamine Esters | ChemitrySelect | 2 | 2.109 | 四区 |

四、主要完成单位

云南民族大学、曲靖师范学院。

五、主要完成人基本情况

黄超：项目的组织者和云南民族大学项目组负责人，在整个项目实施过程中，提出了借助简单底物活性位点引发多米诺反应策略；通过采用常规和非常规温和条件下手段调控吡啶酮、喹诺酮等杂环高效合成的规律；为沙拉沙星、诺氟沙星等含氮杂环药物绿色合成的应用做出了关键贡献，是核心论文1, 3, 5-10, 12-15的通讯作者，其它核心论文的主要作者。主持完成支撑该项目的国家自然科学基金2项，教育部科学技术研究重点项目1项；入选云南省万人计划和昆明市中青年学术和技术带头人选拔培养；培养硕士研究生26人。

刘腾：本项目曲靖师范学院研究组的负责人。对整个项目实施过程中的串联反应设计、非常规调控绿色合成手段应用、串联新机理和所涉及到的重要实验发现起到了支撑作用，是主要论文2、4、11的第一作者或通讯作者，3，12，14核心论文的合作作者。主持完成支撑该项目的云南省应用基础研究面上项目基金一项。