

PERSONAL:

Name: Chunlong Yang
Department: Department of Chemistry, College of Sciences
Gender: Male
Degree: Ph.D.
Title: Professor
Major: Organic Chemistry; Pesticide Chemistry
Graduated University: Nanjing Agricultural University
Research Field: New pesticide discovery, drug molecular design and synthesis
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**BRIEF INTRODUCTION:**

Male, PhD, Professor, PhD supervisor. The cultivation object of Jiangsu Province Qinglan Project. Director of Key Laboratory of Pesticide Science, Nanjing Agricultural University. The research direction is the design and synthesis of novel green pesticides with high efficiency, low toxicity and pollution-free, focusing on the research and development of bionic fungicides and herbicides. The research contents include the molecular design of novel green pesticides, drug synthesis, structure characterization, biological activity evaluation, structure-bioactivity relationship analysis, formulation development. Has presided over the National Natural Science Foundation, the National 863 Program, National Science and Technology Support Program, Fundamental Research Funds for the Central Universities of China, the Science and Technology Support Project of Jiangsu Province, the Natural Science Foundation of Jiangsu Province. Has taken the development work of glyphosate, azaconazole, difenoconazole, propiconazol, *S,S*-fenvalerate, diniconazole and uniconazole. Has applied for nineteen national invention patent, of which seven were authorized. Published sixty one academic papers, including twenty five SCI papers.

RESEARCH PRPJECT:

- (7) Technology program of wheat regional high yield and security with the prevention and control of wheat scab as the core technology, the Fund for Independent Innovation of Agricultural Sciences in Jiangsu Province of China, 2015-2018, principal investigator of research content.
- (6) Novel pesticide development based on the biological source active leading molecule — rational design, synthesis, biological activity and mechanism research, Fundamental Research Funds for the Central Universities of China, 2016-2018, collaborator.
- (5) Design, synthesis and screening of novel pyrrolinone herbicides based on the natural product TeA, the National Natural Science Foundation, 2011-2015, principal investigator.
- (4) Development and industrialization of green ecological pesticides —molecular design, synthesis and structure-activity relationship research of new green ecological herbicides based on natural source leading compound tenuazonic acid, "12th Five-Year Plan" National Science and technology support program, 2011-2015, principal investigator.
- (3) Key technology research of the development and control of wheat scab based on a microbial source fungicide, the Science and Technology Support Project of Jiangsu Province (agricultural sector), 2012-2015, principal investigator.
- (2) Plant growth regulator, biological herbicide research and product development, "12th

Five-Year Plan" National High Technology Research and Development Program (863 Program), 2011-2015, principal investigator of research content.

- (1) Research on molecular design, biological activity and safety evaluation of new green pesticides, Fundamental Research Funds for the Central Universities of China, 2012-2014, principal investigator.

AWARDS:

Reform and practice of chemistry teaching mode based on the student development of individual differences, the first prize of the teaching achievement of Nanjing Agricultural University, 2012.

Teaching reform and innovation of public basic course in agricultural colleges and universities under the background of research universities, the first prize of the teaching achievements of Nanjing Agricultural University, 2011.

TEACHING INFORMATION:

Teaching courses: Pesticide Chemistry, Pesticide Synthesis and Processing Experiment, Modern Pesticide Synthesis Experiment.

PUBLICATIONS:

- (20) Wen-Qin Xu, Min Chen, Kun-Yao Wang, Zheng-Jiao Ren, Ai-Min Lu and **Chun-Long Yang***. Synthesis, characterization, and antifungal activity of phenylpyrrole-substituted tetramic acids bearing carbonates[J]. *Molecules* **2016**, *21*, 355; doi:10.3390/molecules21030355.
- (19) Lizhi Zhang, Zhengjiao Ren, Aimin Lu, Zheng Zhao, Wenqin Xu, Qianqian Bao, Weijie Ding, **Chunlong Yang***. Synthesis, biological activity and 3D-QSAR study of novel pyrrolidine-2,4-dione derivatives containing *N*-substituted phenylhydrazine moiety[J]. *Chem. Res. Chin. Univ.* **2015**, *31*(2): 228-234.
- (18) Chen Min, **Yang Chun-Long***. Synthesis, crystal structure and biological activity of 5-(2-methylphenyl)-1,3,4-oxadiazol-2(3*H*)-one derivatives[J]. *Chinese J. Struct. Chem.* **2015**, *34*(2): 189-196.
- (17) Ying Hu, Li-Zhi Zhang, Zheng-Jiao Ren, Zheng Zhao, Wen-Qin Xu and **Chun-Long Yang***. Synthesis and antifungal activity of novel furan-2,4-dione derivatives containing substituted phenylhydrazine moiety[J]. *J. Chin. Chem. Soc.* **2015**, *62*, 495-500.
- (16) Wang Xian-Feng, Chen Min, Zhang Li-Zhi, Zhao Zheng, **Yang Chun-Long***. Synthesis, characterization and bioactivity of novel 5,6-dihydropyrrolo[3,4-*c*]pyrazol-4-(1*H*)one derivatives[J]. *Heterocyclic Communications*, **2015**, *21*: 361-366.
- (15) Ying Hu, Junjun Wang, Aimin Lu, **Chunlong Yang***. Synthesis, characterization, antifungal evaluation and 3D-QSAR study of phenylhydrazine substituted tetronic acid derivatives[J]. *Bioorg. Med. Chem. Lett.* **2014**, *24*: 3772-3776.
- (14) Ying Hu, Junjun Wang, Aimin Lu, **Chunlong Yang***. Synthesis, characterization, antifungal evaluation and 3D-QSAR study of phenylhydrazine substituted tetronic acid derivatives[J]. *Bioorg. Med. Chem. Lett.* **2014**, *24*: 3772-3776.
- (13) Gui-Hua Lu, Hai-Bin Chu, Min Chen, **Chun-Long Yang***. Synthesis and bioactivity of novel

- strobilurin derivatives containing the pyrrolidine-2,4-dione moiety[J]. *Chinese Chemical Letters*, **2014**, 25: 61–64.
- (12) Min Chen, Xian-Feng Wang, Si-Si Wang, Yi-Xiao Feng, Feng Chen, **Chun-Long Yang***. Synthesis, characterization and fungicidal activities of novel fluorinated 3,5-disubstituted-4*H*-1,2,4-triazol-4-amines[J]. *Journal of Fluorine Chemistry*, **2012**, 135: 323-329.
- (11) Bao Feng Han, Qing Ming Shi, Xian Feng Wang, Jian Bo Liu, Sheng Qiang, **Chun Long Yang***. Synthesis and bioactivity of novel 3-(1-hydroxyethylidene)-5-substituted-pyrrolidine-2,4-dione derivatives[J]. *Chinese Chemical Letters*, 2012, 23: 1023-1026.
- (10) Si Tengfei, Meng Fangui, Wang Xianfeng, Zhu Zhaoyong, Qiang Sheng, Yang Chunlong. Synthesis and herbicidal activities of (*Z,E*)-1-[1-(2,4-dioxopyrrolidine-3-ylidene)ethyl]-4-alkylsemicarbazide derivatives[J]. *Chinese Journal of Organic Chemistry*, **2011**, 31(4): 521-527.
- (9) Xiao-Qian Zheng, Bao-Feng Han, Xian-Feng Wang, Sheng Qiang, **Chun-Long Yang***. Synthesis and bioactivity of novel (*Z,E*)-1-(substituted phenyl)-3-[α -(alkyloxyimino)benzylidene]pyrrolidine-2,4-dione derivatives[J]. *Heterocycl. Commun.* **2011**, 17(1-2): 73-78.
- (8) Xian-Feng Wang, Teng-Fei Si, Qing-Bin Li, Zhao-Yong Zhu, Xian-Jie Zhu, Sheng Qiang, and **Chun-Long Yang***. Synthesis, characterization and biological activity of novel (5-*RS*,6-*S*)-5-*sec*-butyl-3-(1-substituted-amino)ethylidene-1*H*-pyrrolidine-2,4-diones[J]. *ARKIVOC*, **2010**, (ii): 31-48.
- (7) Zhao-Yong Zhu, Xian-Feng Wang, Fan-Gui Meng, Qing-Bin Li, Xiao-Qian Zheng, Sheng Qiang, and **Chun-Long Yang***. Synthesis, Characterization, and Biological Activities of Novel (Z)-3-((E)-1-(Alkyloxyimino)Ethyl)-5-Arylidene-4-Hydroxypyrroline-2-One Derivatives[J]. *J. Heterocyclic Chem.*, **2010**, 47: 1328-1334.
- (6) Zhao Yong Zhu, Qing Ming Shi, Bao Feng Han, Xian Feng Wang, Sheng Qiang, **Chun Long Yang***. Synthesis, Characterization and Biological Activities of Novel (*E*)-3-(1-(Alkyloxyamino)ethylidene)-1-alkylpyrrolidine-2,4-dione Derivatives[J]. *Bull. Korean Chem. Soc.* **2010**, 31(9): 2467-2472.
- (5) Yang Chunlong, Lu Guihua, Chen Min, Wang Xianfeng, Feng Lingling, Wang Yang, Liu Jianbo. Methyl methoxy acrylate compounds containing pyrrolidine-2,4-dione, preparation method and application[P]. Patent number: ZL 201210524110.9. Authorization day: 2016-04-06.
- (4) Yang Chunlong, Hou Min. A series of pyrrolidine-2,4-dione compounds containing pyridine hydrazine, preparation method and application[P]. Patent number: ZL 201210580212.2. Authorization day: 2016-07-06.
- (3) Yang Chunlong, Wang Xianfeng, Feng Lingling, Wang Yang, Chen Min, Hu Ying, Wang Sisi, Zhu Haibin, Wang Junjun, He Rui, Huang Mu. A series of pyrrolidine-2,4-dione compounds containing substituted phenylhydrazine, preparation method and application[P]. Patent number: ZL 201110453110.X. Authorization day: 2015-03-24.
- (2) Yang Chunlong, Si Tengfei, Meng Fangui, Wang Xianfeng, Zhu Zhaoyong, Qiang Sheng. 3-Acyl pyrrolidine-2,4-dione semicarbazone compounds, preparation method and application

[P]. Patent number: ZL 201010202871.3. Authorization day: 2012-09-05.

- (1) Yang Chunlong, Huang Yuefang, Wang Li, Zhou Yaling, Wang Xianfeng, Zhu Zhaoyong. A series of dipeptide compounds of glucose, preparation method and application[P]. Patent number: ZL 200810124777.3. Authorization day: 2011-11-16.