

## PERSONAL

Name: Weihua Zhang  
Department: Department of Chemistry, College of Sciences  
Gender: Male  
Degree: Ph.D.  
Title: Professor  
Major: Organic Chemistry  
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## RESEARCH INTERESTS:

Organic Synthesis;

Novel Pesticide Discovery: especially novel green pesticides based on natural products.

Other:

1. Design and synthesis of novel coumarin derivatives:

- 1) Design and synthesis of novel coumarin derivatives for antifungal application (structure-activity relationship);
- 2) Antifungal mechanism and interaction target of coumarin based fungicides;
- 3) Novel fluorescent coumarin derivatives for biological application.

2. Synthetic technology of drug molecules and discovery of new pesticide formulation.

## PROFESSIONAL EXPERIENCE:

2015-now Dean of College of Sciences

2014-2015 Deputy dean of College of Sciences

2012-now Full professor, College of Sciences, Nanjing Agricultural University

2004-2011 Associate professor, College of Sciences, Nanjing Agricultural University

1999-2004 Lecturer, College of Sciences, Nanjing Agricultural University

1996-1998 Teaching assistant, College of Sciences, Nanjing Agricultural University

## HONORS AND AWARDS:

2014 "Middle-aged Academic Leader" by Qing-Lan Project (Jiangsu province)

2008-now Honored as the "Key Scholar" of 133 Talents Program (NAU)

2013 Award for "Professors and doctors working in company" experience

2012 Outstanding Teaching and Management faculty of NAU

2012 Outstanding Member of the fourth scientific academe group of Jiangsu province

## TEACHING:

- Organic Chemistry
- Organic Synthesis
- Industry of Fine Chemicals
- Advanced Organic Chemistry
- Take responsibility for several key courses of Nanjing Agricultural University, such as Organic Chemistry Experiment; Organic Chemistry (online course).

- Edited Books: Learning Guide for Organic Chemistry ; Organic Chemistry (Selected as the Outstanding Textbook by the Teaching Guiding Committee of the Ministry of Education, China); Pyrethroid Pesticide Chemistry (Editor in Chief: Minghua WANG); Pesticide Synthesis (Editor in Chief: Baoan, SONG, Associate Editor: Weihua Zhang).
- Take responsibility for several SRT projects, have supervised more than 50 undergraduate students to complete their graduation dissertations.

## RESEARCH PROJECTS:

- (7) Discovery of new pesticides based on biogenic active molecules---rational design, synthesis, bioactivity and reaction mechanism. (Special project of the Fundamental Research Funds for the Central Universities, KYTZ201604, 201601~201912, in process);
- (6) Design and synthesis of novel allyl-coumarins and its biological activity. (National Natural Science Foundation, 21272116, 2013.01~2016.12, in process);
- (5) Discovery of novel pesticide molecules containing heterocycle-coumarin(the Fundamental Research Funds for the Central Universities, 2014.01~2016.12, in process);
- (4) Design and synthesis of novel allyl-coumarins and its biological activity.(National Natural Science Foundation, 21072096, 2011.01~2011.12, done);
- (3) Discovery of novel bioactive pesticides using natural antifungalactive coumarin derivativeOstholas the leading compound. (National Natural Science Foundation, 20502011, 200601~200812, done);
- (2) Study of Nano-photocatalyzed degradation of pesticides and organic pollutants(Cooperated with Shanghai Institute of Ceramics of the Chinese Academy of Sciences, 2012.01~2013.12, done)
- (1) Sponsored as a middle-aged academic leader by “Qing Lan Project” of the Education Department of Jiangsu Province in 2014.

## PUBLICATIONS:

- (15) Zhang, R. R.; Liu, J.; Zhang, Y; Hou, M. Q.; Zhang, M. Z.\*; Zhou, F.; **Zhang, W. H.\*** Microwave-assisted synthesis and antifungal activity of novel coumarin derivatives: Pyrano[3,2-*c*]chromene-2,5-diones. *Eur. J. Med. Chem.* **2016**, *116*, 76-83. doi:10.1016/j.ejmech.2016.03.069.
- (14) Zhang, M. Z.; Zhang, R. R.; Yin, W. Z.; Yu, X.; Zhang, Y. L.; Liu, P.; Gu, Y. C.; **Zhang, W. H.\*** Microwave-assisted Synthesis and antifungal activity of coumarin[8,7-*e*][1,3]oxazine derivatives. *Mol. Divers.* **2016**, First online: 15 February 2016. doi:10.1007/s11030-016-9662-2.
- (13) Ming-Zhi Zhang, Yu Zhang, Jia-Qun Wang and **Wei-Hua Zhang \*** Design, Synthesis and Antifungal Activity of Coumarin Ring-Opening Derivatives *Molecules.* **2016**, *21*, 1387; doi:10.3390/molecules21101387.
- (12) Ming-Zhi Zhang, Rong-Rong Zhang, Jia-Qun Wang, Xiang Yu, Ya-Ling Zhang, Qing-Qing Wang, **Wei-Hua Zhang\*** Microwave-assisted synthesis and antifungal activity of novel fused Osthole derivatives *European Journal of Medicinal Chemistry*, **2016**, *124*, 10-16.

- (11) Wei Shen , Li Guo, Tao Wu \*, **Weihua Zhang\***, Muhammad Abid Stabilizing beverage emulsions by regenerated celluloses *LWT - Food Science and Technology* **2016**, 72, 292-301.
- (10) Fan Zhang Xiaoju Yin Jing Lan **Weihua Zhang\*** Application of Ba<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>/Fe<sub>3</sub>O<sub>4</sub> as a novel magnetic adsorbent to remove methyl blue from aqueous solution *J Mater Sci*, **2016**, 51, 3525–3535.
- (9) Fan Zhang\*, Xiaoju Yin, **Weihua Zhang** , Yuefei Ji, Optimizing decolorization of methyl blue solution by two magnetic hydroxyapatite nanorods, *Journal of the Taiwan Institute of Chemical Engineers*. **2016**, 65, 269–275.
- (8) Fan Zhang\*, Xiaoju Yin, **Weihua Zhang**, Development of magnetic Sr<sub>5</sub>(PO<sub>4</sub>)<sub>3</sub>(OH)/Fe<sub>3</sub>O<sub>4</sub> nanorod for adsorption of Congo red from solution *Journal of Alloys and Compounds*. **2016**, 657, 809-817.
- (7) Xiaoju Yin, Fan Zhan\*, **Weihua Zhang**, Fabrication of hybrid magnetic Sr<sub>5</sub>xBa<sub>3</sub>x(PO<sub>4</sub>)<sub>3</sub>(OH)/Fe<sub>3</sub>O<sub>4</sub> nanorod and its highly efficient adsorption performance for acid fuchsin dye *Applied Surface Science*. **2015**, 359, 714–722.
- (6) Yan, H.; Yin, W.; Liu, P.; Liu, J.; Hu, M.; Gu, C.; Yao Y.; **Zhang, W. H.\*** Palladium-catalyzed synthesis of 6-allylcoumarins using organotin reagents as multicoupling organometallic nucleophiles. *Appl. Organomet. Chem.* **2014**, 28, 747-749. doi: 10.1002/aoc.3188
- (5) Zhang, R. R.; Xu, Z.; Yin, W. Z.; Liu, P.; **Zhang, W. H.\*** Microwave-Assisted Synthesis and Antifungal Activities of Polysubstituted Furo[3,2-*c*]chromen-4-ones and 7,8,9,10-Tetrahydro-6H-benzofuro-[3,2-*c*]chromen-6-ones. *Synthetic. Commun.* **2014**, 44, 3257-3263. doi:10.1080/00397911.2014.935436
- (4) **Weihua Zhang** A novel method for synthesis of osthole analogues, patent (Chinese), ZL 201310526070.6
- (3) Yin, Q.; Yan, H.; Zhang, Y.; Wang, Y.; Zhang, G.; He, Y.; **Zhang, W. H.** Palladium-catalyzed synthesis of 8-allyl or 8-prenylcoumarins by using organotin reagents as multicoupling nucleophiles. *Appl. Organomet. Chem.* **2013**, 27, 85-88. doi: 10.1002/aoc.2944
- (2) Chen, Y.; Zhang, Y.; Liu, C.; Lu, A.; **Zhang, W. H.\*** Photodegradation of Malachite Green by Nanostructured Bi<sub>2</sub>WO<sub>6</sub> Visible Light-Induced Photocatalyst. *International Journal of Photoenergy*. **2012**, Article ID 510158, 6 pages.
- (1) Pesticide Synthesis (Editor in Chief: Baoan, SONG, Associate Editor: **Weihua Zhang**, Chemical Industry Press, 2016.