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## Chinese Chemical Letters

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## Graphical Abstracts/Chin Chem Lett 27 (2016) iii-vi

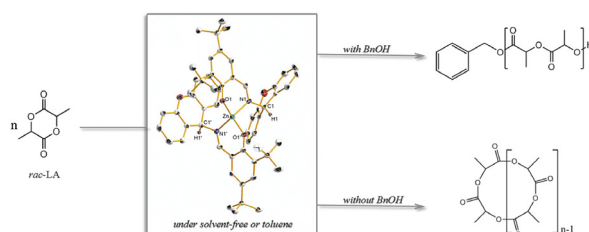
## Original articles

### Zinc bis-Schiff base complexes: Synthesis, structure, and application in ring-opening polymerization of *rac*-lactide

Zhong-Ran Dai<sup>a</sup>, Chang-Feng Yin<sup>a</sup>, Cheng Wang<sup>b</sup>, Jin-Cai Wu<sup>a</sup><sup>a</sup>State Key Laboratory of Applied Organic Chemistry, Key Laboratory of Nonferrous Metal Chemistry and Resources Utilization of Gansu Province, College of Chemistry and Chemical Engineering, Lanzhou 730000, China<sup>b</sup>The Second Affiliated Hospital of Lanzhou University, Lanzhou 730000, China

A series of bis-ligated zinc complexes supported by Schiff base ligands were successfully synthesized. All catalysts exhibited highly catalytic activity and obtained moderate heterotactic PLAs with the expected molecular weight.

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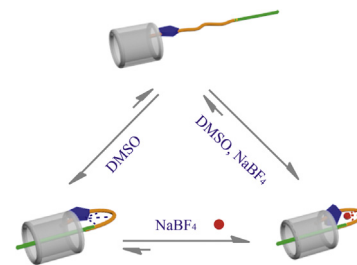
### Stable pillar[5]arene-based *pseudo*[1]rotaxanes formed in polar solution

Xuan Wu, Lei Gao, Junzhao Sun, Xiao-Yu Hu, Leyong Wang

Key Laboratory of Mesoscopic Chemistry of MOE and Collaborative Innovation Center of Chemistry for Life Sciences, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210023, China

Mono-alkyl-functionalized pillar[5]arenes P1, P2, and P3 were synthesized by click reaction, which exhibited different self-assembly behavior in polar solvent DMSO. Stable *pseudo*[1]rotaxane was formed by the self-complexation from P1 or P2, whereas, concentration-dependent *pseudorotaxane* structures were generated by P3. Moreover, the obtained *pseudo*[1]rotaxanes exhibited a dynamic fast assembly process upon adding NaBF<sub>4</sub>, resulting in the formation of Na<sup>+</sup>-induced *pseudorotaxanes*.

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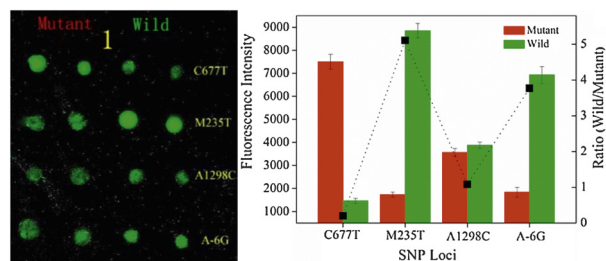


### Multiple genotyping based on multiplex PCR and microarray

Xian-Bo Mou<sup>a</sup>, Zeeshan Ali<sup>a</sup>, Bo Li<sup>a</sup>, Tao-Tao Li<sup>a</sup>, Huan Yi<sup>a</sup>, Hong-Ming Dong<sup>b</sup>, Nong-Yue He<sup>a,b</sup>, Yan Deng<sup>b</sup>, Xin Zeng<sup>c</sup><sup>a</sup>State Key Laboratory of Bioelectronics, Southeast University, Nanjing 210096, China<sup>b</sup>Economical Forest Cultivation and Utilization of 2011 Collaborative Innovation Center in Hunan Province, Hunan Key Laboratory of Green Packaging and Application of Biological Nanotechnology, Hunan University of Technology, Zhuzhou 412007, China<sup>c</sup>Nanjing Maternity and Child Health Care Hospital, Nanjing 210029, China

Multiple genotypes were recognized by spotting locations on microarray/glass slide and fluorescence intensity ratios based on multiplex PCR amplification.

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## Quantification of flupirtine maleate polymorphs using X-ray powder diffraction

Yu-Mei Zhao<sup>a,b</sup>, Zhi-Bing Zheng<sup>a</sup>, Song Li<sup>a,c</sup>

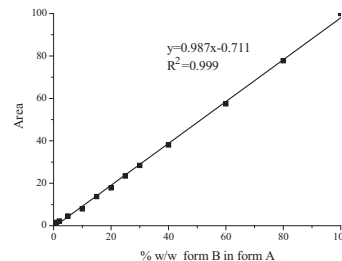
<sup>a</sup>Laboratory of Computer-Aided Drug Design & Discovery, Beijing Institute of Pharmacology and Toxicology, Beijing 100850, China

<sup>b</sup>Laboratory of Structure Identification, Beijing Institute of Pharmacology and Toxicology, Beijing 100850, China

<sup>c</sup>State Key Laboratory of Toxicology and Medical Countermeasures, Beijing Institute of Pharmacology and Toxicology, Beijing 100850, China

An XRPD method for quantifying flupirtine maleate polymorphs was established by systematically optimizing the instrumental parameters and validating the analytical methodology. The calibration curve was found to be a linear fit across the entire range from 0–100% (w/w) with an LoD as low as 0.15% and an LoQ of 0.5%.

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## A colorimetric and ratiometric fluorescent chemosensor based on furan-pyrene for selective and sensitive sensing Al<sup>3+</sup>

Yuan Zhang<sup>a</sup>, Yuan Fang<sup>a</sup>, Nai-Zhang Xu<sup>a</sup>, Ming-Qun Zhang<sup>a</sup>, Guan-Zhi Wu<sup>c</sup>, Cheng Yao<sup>a,b</sup>

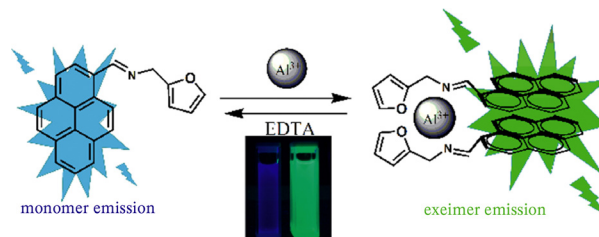
<sup>a</sup>College of Chemistry and Molecular Engineering, Nanjing Tech University, Nanjing 211816, China

<sup>b</sup>State Key Laboratory of Coordination Chemistry, Nanjing University, Nanjing 210093, China

<sup>c</sup>College of Overseas Education, Nanjing Tech University, Nanjing 211816, China

A new pyrene derivative BF bearing a furan group was synthesized via a one-step reaction as a colorimetric and ratio metric chemosensor for Al<sup>3+</sup> in ethanol–H<sub>2</sub>O (9:1, v/v, pH 7.2, HEPES buffer) solution.

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## Effect of organic moieties (phenyl, naphthalene, and biphenyl) in Zr-MIL-140 on the hydrogenation activity of Pd nanoparticles

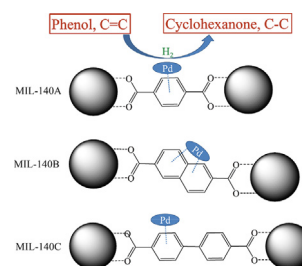
Jie Yang<sup>a</sup>, Jian-Jun Ma<sup>a</sup>, Da-Min Zhang<sup>b</sup>, Teng Xue<sup>b</sup>, Ye-Jun Guan<sup>b</sup>

<sup>a</sup>School of Mathematics and Physics, Shanghai University of Electric Power, Shanghai 200090, China

<sup>b</sup>Shanghai Key Laboratory of Green Chemistry and Chemical Processes, East China Normal University, Shanghai 200062, China

The hydrogenation activity of Pd nanoparticles Pd NPs supported on MIL-140 analogs consisting of different aromatic moieties have been explored and the results show that catalysts comprising Pd and a phenyl groups exhibit superior performance to those containing Pd and naphthalene or biphenyl groups.

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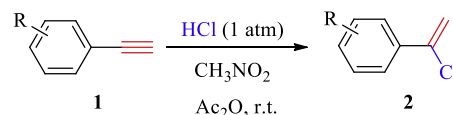
## Catalyst-free hydrochlorination protocol for terminal arylalkynes with hydrogen chloride

Cai-Xia Xu, Cun-Hua Ma, Fu-Rong Xiao, Hong-Wei Chen, Bin Dai

School of Chemistry and Chemical Engineering, Shihezi University/Key Laboratory for Green Processing of Chemical Engineering of Xinjiang Bingtuan, Shihezi 832003, China

Vinyl chlorides were synthesized via a simple and straightforward protocol for hydrochlorination of terminal arylalkynes with hydrogen chloride. This protocol does not involve any metal catalysts or additives.

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