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Graphical Abstracts/Chin Chem Lett 25 (2014) iii-viii

Original articles

Reversible photoswitching aggregation and dissolution of spiropyran-functionalized copolymer and light-responsive FRET process

Lei-Xiao Yu, Yang Liu, Si-Chong Chen, Yue Guan, Yu-Zhong Wang

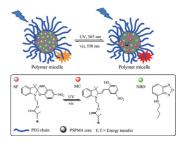
Center for Degradable and Flame-Retardant Polymeric Materials, State Key Laboratory of Polymer Materials Engineering, College of Chemistry, National Engineering Laboratory of Eco-Friendly Polymeric Materials (Sichuan), Sichuan University, Chengdu 610064, China

Well-defined amphiphilic diblock copolymer decorated with spiropyran exhibits good reversible photoswitchable and FRET light-responsive properties, which would have a potential application in drug delivery and cell imaging and tracking synchronously.

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Rh(I)-catalyzed borylation of primary alkyl chlorides

Tian-Jun Gong, Yuan-Ye Jiang, Yao Fu

Department of Chemistry, University of Science and Technology of China, Hefei 230026, China

Rhodium-catalyzed cross-coupling reactions of unactivated primary alkyl chlorides with diboron reagents have been developed as practical methods for the synthesis of alkylboronic esters. These reactions expands the concept and utility of Rh(I)-catalyzed cross-coupling of aliphatic electrophiles.

$$R \sim C1 + B_2 Pin_2$$
 $Cat. [Rh(I)]$ $R \sim BPin$ 11 examples 43-85% yield

A highly flexible green synthesis of 1*H*-pyrazolo[1,2-b]phthalazine-5,10-dione derivatives with CuI nanoparticles as catalyst under solvent-free conditions

Javad Safaei-Ghomi, Hossein Shahbazi-Alavi, Abolfazl Ziarati, Raheleh Teymuri, Mohammad Reza Saberi

Department of Organic Chemistry, Faculty of Chemistry, University of Kashan, Kashan 51167, Iran

Four-component reaction condensation of phthalic anhydride, hydrazine monohydrate, aromatic aldehydes and malononitrile or ethyl cyanoacetate catalyzed by nano CuI.

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A practical synthesis of bis(indolyl)methanes catalyzed by BF₃·Et₂O

Xia-Fei Xua, Yan Xionga,b, Xue-Ge Linga, Xi-Mi Xiea, Jie Yuana, Shu-Ting Zhanga, Zhong-Rong Songo

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$$\begin{array}{c} R_1 \\ \\ 2 \\ \\ \end{array} \begin{array}{c} H \\ \\ \\ \\ \end{array} \begin{array}{c} H \\ \\ \\ \\ \end{array} \begin{array}{c} BF_3 \cdot Et_2O \\ \\ \\ \\ \end{array} \begin{array}{c} R_1 \\ \\ \\ \end{array} \begin{array}{c} R_2 \\ \\ \\ \\ \end{array} \begin{array}{c} R_3 \\ \\ \\ \\ NH \end{array} \begin{array}{c} R_1 \\ \\ \\ \\ NH \end{array}$$

24 examples up to 96% yield

Practical BF, Et, O catalyzed reactions between indoles and a series of carbonyl compounds at room temperature are described, which afford bis(indolyl)methanes with isolated yields up to 96%.

A three-component one-pot synthesis of 2-alkoxy-4-amino-N-arylthiazole-5carboxamides

Hai-Long Zhao^{a,b}, Jie Zhou^a, Hong-Rui Song^b, Bai-Ling Xua

^aBeijing Key Laboratory of Active Substance Discovery and Druggability Evaluation, Institute of Materia Medica Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100050, China

^bDepartment of Pharmacy Engineering, Shenyang Pharmaceutical University, Shenyang 110016, China

A facile and efficient protocol was developed to access 2-alkoxy-4-amino-N-arylthiazole-5-carboxamides through a three-component one-pot reaction, which involved potassium methyl cyanimidodithiocarbonate, 2-halo-N-arylacetamides and alcohols.

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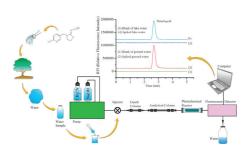
Analysis of insecticide thiacloprid by ion chromatography combined with online photochemical derivatisation and fluorescence detection in water samples

Qamar Subhania, Zhong-Ping Huanga, Zuo-Yi Zhua, Lu-Ye Liub, Yan Zhua

^aDepartment of Chemistry, Xixi Campus, Zhejiang University, Hangzhou 310028, China ^bThermofisher Scientific, Shanghai 2012303, China

A novel method was developed for the determination of thiacloprid by ion chromatography - online photochemical derivatisation - fluorescence detection. It was successfully employed for the analysis of thiacloprid in ground and lake water samples.

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An eco-friendly water mediated synthesis of 1,2,3-triazolyl-2-aminopyrimidine hybrids as highly potent anti-bacterial agents

Sangaraiah Nagarajana, Poovan Shanmugavelana, Murugan Sathishkumara, Ramasamy Selvia, Alagusundaram Ponnuswamya, Hariharan Harikrishnanb, Vellasamy Shanmugaiahb

^aDepartment of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai 625021, India

^bDepartment of Microbial Technology, School of Biological Sciences, Madurai Kamaraj University, Madurai 625021, India

An elegant green synthesis of 1,2,3-triazolyl linked 2-aminopyrimidine hybrids in water has been accomplished for the first time. Their antibacterial activities are comparable with that of tetracycline.

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