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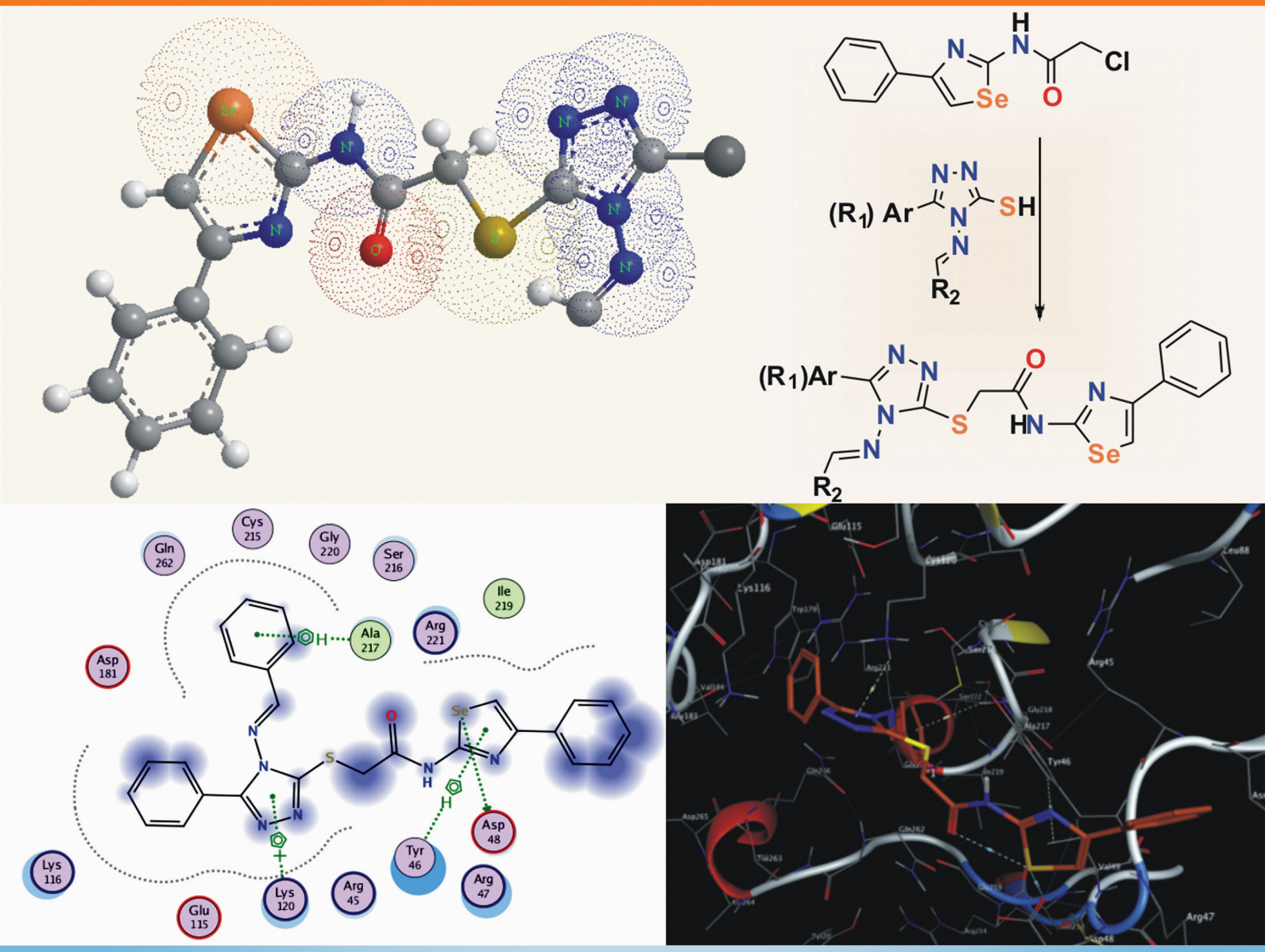

A novel potential PTP1B inhibitors containing 1,3-selenazole unit were synthesized. The result of inhibitory activities and molecular docking simulation show that excellent inhibitory activities are obtained and hydrogen bonds are performed between the molecule and the enzyme.

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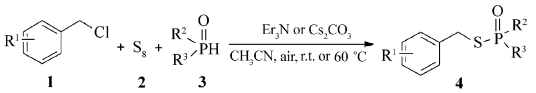
Synthesis of *S*-Alkyl Phosphorothioates from Alkyl Cholorides, Phosphites and Sulfur Powder

LIANG Hongwen, ZHANG Liangliang, TANG Guo *

2019, **36**(7): 764-772



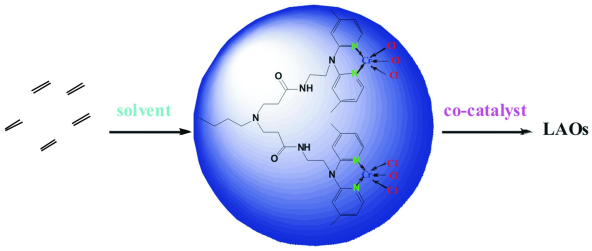
- transition metal-free and S8 as sulfur source
- multicomponent reaction in one-step
- formation of P-S and C-S bonds in one reaction

Various pharmacologically-important *S*-alkyl phosphorothioates were synthesized from reactions of alkyl halides with sulfur powder(S_8) and commercial available phosphites under air without any transition metal catalysts

Synthesis and Ethylene Oligomerization Behavior of Hyperbranched Bispyridineimine Chromium Catalyst

WANG Jun *, LIU Jinyi, CHEN Liduo, LAN Tianyu, WANG Libo

2019, **36**(7): 773-781

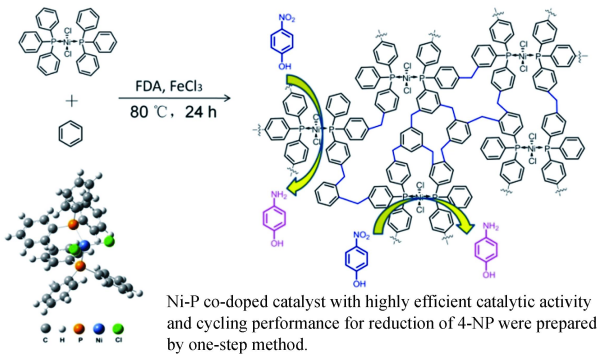


A novel hyperbranched bispyridineimine chromium catalyst has been designed to get linear α-olefins(LAOs) in ethylene oligomerization.

Preparation of Ni-P Co-doped Hyper-Crosslinked Polymer and Used for Reduction of 4-Nitrophenol

TANG Cheng, ZOU Zhijuan, SONG Kunpeng *

2019, **36**(7): 782-789

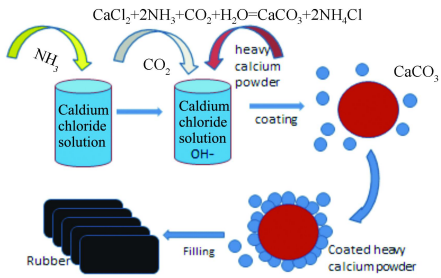


Ni-P co-doped catalyst with highly efficient catalytic activity and cycling performance for reduction of 4-NP were prepared by one-step method.

Processing and Properties of Rubber Modified by Coated Heavy Calcium Powder as the Filler

FAN Tianbo, CHEN Si, JIANG Yu, CAI Xun, KANG Ping, LI Li, ZHANG Li, LIU Yunyi *

2019, **36**(7): 790-797

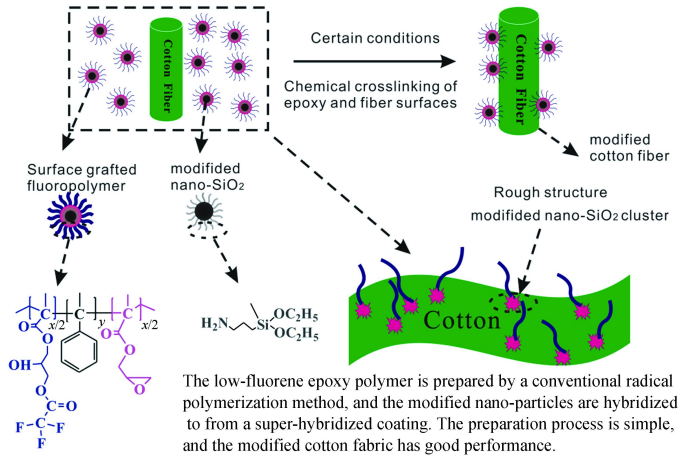


The rubber filled with coated heavy calcium powders has obvious improvement in hardness, tensile strength and modulus.

Preparation and Performance of Hybrid Superhydrophobic Materials from Fluorinated Epoxy Resin and Silica Nanoparticles

HOU Chengmin *, LI Na, DONG Haitao, KOU Yanping

2019, **36**(7): 798-806

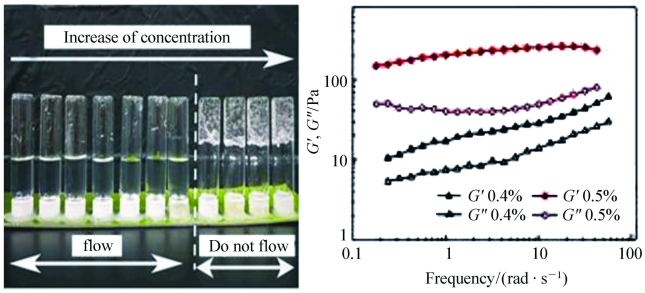


The low-fluorene epoxy polymer is prepared by a conventional radical polymerization method, and the modified nano-particles are hybridized to from a super-hybridized coating. The preparation process is simple, and the modified cotton fabric has good performance.

Relationship Between Particle Size and Distribution of Commercial Polyacrylic Superabsorbent Resin and Its Gelation Concentration

MA Rui, LI Shuangshuang, WANG Xiaowei, FU Zhilei, PAN Ge, FU Bo, SHI Tongfei, HUANG Yineng, TANG Huaqing, LI Sijia, XU Donghua*, ZHOU Hengwei*

2019,**36**(7):807-814

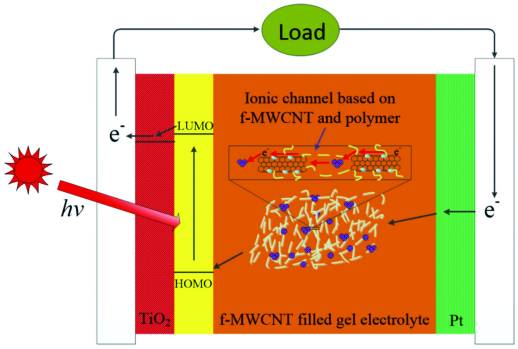


The critical gelation concentration of the six commercial superabsorbent resins decreases with the increase of particle size in the uniform range, providing a reference for the amount of superabsorbent resin added to hydrogel fire extinguishing agents to improve its ability to adhere

Application of Functionalized Multi-walled Carbon Nanotubes Filled Gel Electrolyte in Dye-Sensitized Solar Cells

SHENG Lei, LI Tingyu, GUO Lifang, LI Gang*, ZHANG Wendong,

2019,**36**(7):815-822

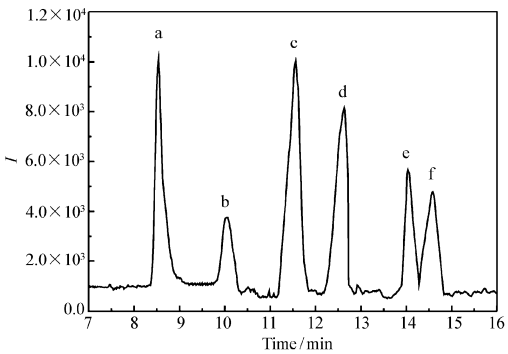


With the addition of f-MWCNT in PVDF-HFP electrolyte, ionic channels for iodide/tri-iodide are built, which improve the performance of electrolytes *via* enhancing charge transport and ionic diffusion.

Separation and Analysis of Mixed Amino Acid Enantiomers by Capillary Electrochromatography-Electrospray-Time of Flight/Mass Spectrometry

LI Yingjie, LIN Xiaotong, GAO Lidi*, QIN Shili, TANG Yimin, JIN Zhixiang, ZHANG Shuai

2019,**36**(7):823-831

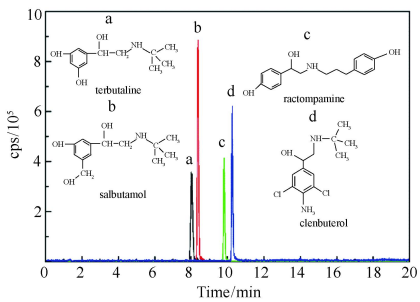


A simple and efficient capillary electrochromatography-electrospray-time of flight/mass spectrometry(CEC-ESI-TOF/MS) method for the separation and analysis of mixed amino acids enantiomers is established.

QuEChERS Purification with HPLC-MS/MS for Rapid Confirmation in Acute Clenbuterol Poisoning Case Sample

CAI Zhibin*, SUN Jinying, XU Xiaoyan, ZHANG Ying, LAI Jianhui, LIU Jinming

2019,**36**(7):832-838

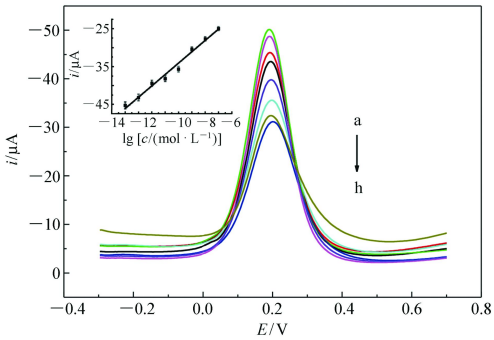


The combined use of acid/enzymatic hydrolysis extraction and QuEChERS promote the emergency determination of four β_2-agonists in food of animal origin by HPLC-MS/MS.

Electrochemical Determination of the Specific Genetic Sequence in Transgenic Maize Using Reduced Graphene Oxide and Nano Zirconia Composites as a Platform for Immobilizing DNA

WANG Xueliang*, WANG Zhaoxia, WANG Tao, DAI Xiaohui

2019, **36**(7): 839-846

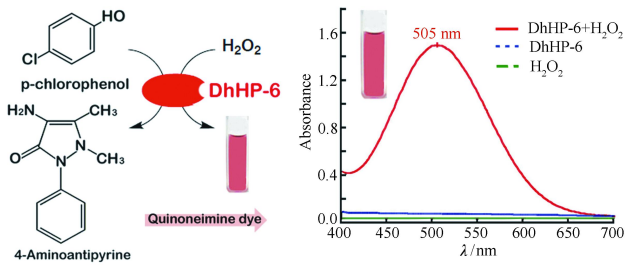


The electrochemically reduced graphene oxide and nano zirconia composites are used to fabricate an electrochemical DNA sensor for the determination of the specific genetic sequence in transgenic maize with high stability and sensitivity.

Hydrogen Peroxide and Glucose Sensitive Colorimetric Method Based on Deuterohemin-Ala His Thr Val Glu Lys

SHI Xin, LIU Chuanzhi, GONG Ping, LI wei, HOU Yue*

2019, **36**(7): 847-854



As a mimic of enzyme, DhHP-6 has the function of catalyzing the decomposition of H_2O_2.

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