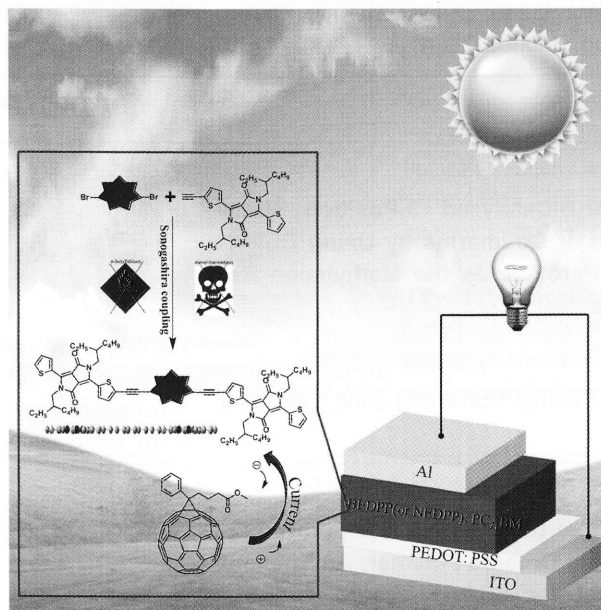


中国科学院科学出版基金资助出版

COVER PICTURE

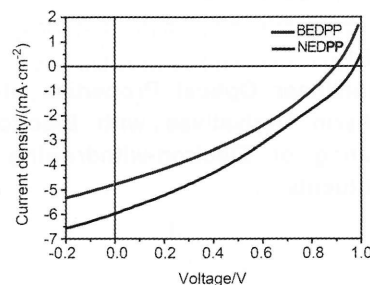
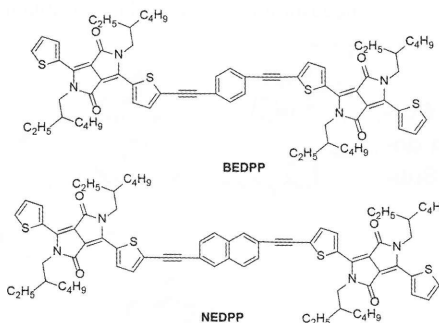
The cover picture shows that two simple small molecules **BEDPP** and **NEDPP** were designed and synthesized via Sonogashira reaction. The typical method of introducing acetylene linkages by Sonogashira reactions can avoid the usage of toxic stannyl intermediates and potentially dangerous lithiation reactions. The solution-processed BHJ OSCs based on **BEDPP** and **NEDPP** exhibit PCEs of 1.48% and 2.31% with very high V_{oc} values of 0.90 and 0.98 V without using solvent additive and without post-treatment. More details are discussed in the article by Peng *et al.* on page 353—358.



COMMUNICATIONS

353

A- π -D- π -A Type Small Molecules Using Ethynylene Linkages for Organic Solar Cells with High Open-circuit Voltages



Ke Gao, Liangang Xiao, Yuanyuan Kan, Lisheng Li, Yajing Yan, Huadong Huang, Junbiao Peng, Yong Cao, Xiaobin Peng*

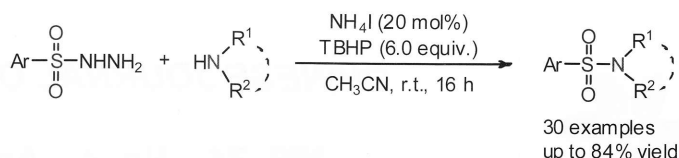
Two simple small molecules **BEDPP** and **NEDPP** are designed and synthesized via Sonogashira reaction. The solution-processed BHJ OSCs based on them exhibit PCEs of 1.48% and 2.31% with very high V_{oc} values of 0.90 and 0.98 V, respectively, without using solvent additive and without post-treatment.

CONTENT

359

NH₄I-Catalyzed Synthesis of Sulfonamides from Arylsulfonylhydrazides and Amines

Hui Yu,* Yonghao Zhang

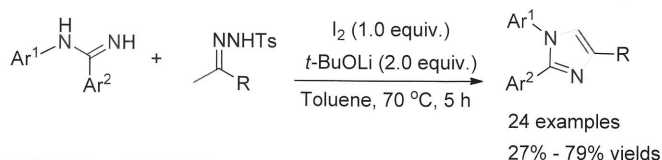


Sulfonimides were synthesized through the oxidation coupling of arylsulfonylhydrazides and amines by TBHP/NH₄I system in moderate to good yields.

363

A Transition-Metal-Free Synthesis of Multisubstituted Imidazoles

Ping Wu, Lutao Zhang, Xueguo Zhang, Xin Guo, Baohua Chen*



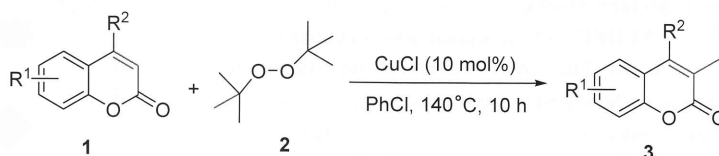
A novel and simple *t*-BuOLi/I₂-mediated synthesis of 1,2,4-trisubstituted imidazoles was developed without transition-metal added. The transition-metal-free strategy tolerated a range of substrates and provided products in moderate to good yields with 100% regioselectivity.

FULL PAPERS

368

Copper(I)-Catalyzed 3-Position Methylation of Coumarins by Using Di-*tert*-butyl Peroxide as the Methylation Reagents

Huan Zhuang, Runsheng Zeng,* Jianping Zou*

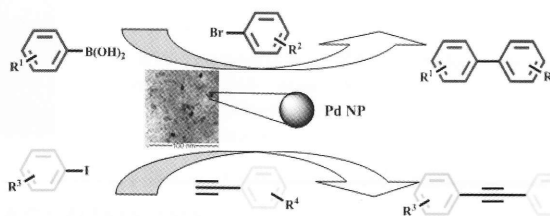


The copper-catalyzed methylation of coumarin by using di-*tert*-butyl peroxide (DTBP) has been described. The reaction provides direct access to a wide range of 3-methylcoumarins in moderate to good yields. In this procedure, it is noteworthy that DTBP was employed not only as the oxidant, but also as the methyl source.

373

Palladium Nanoparticles Supported on a Porous Organic Polymer: An Efficient Catalyst for Suzuki-Miyaura and Sonogashira Coupling Reactions

Xiaomeng Ren, Shengnan Kong, Qiding Shu, Mouhai Shu*

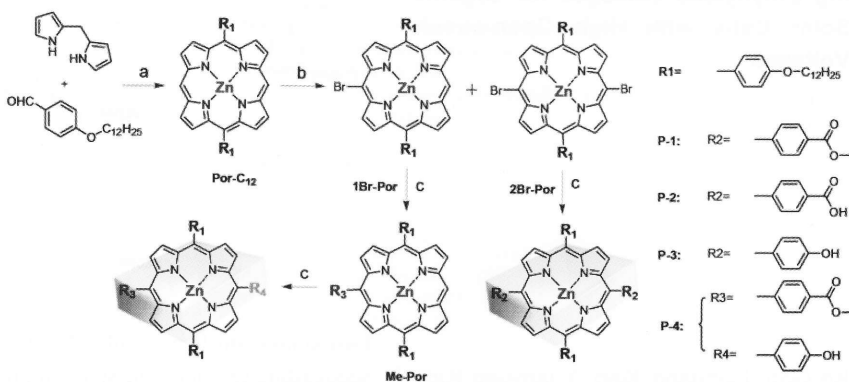


A new porous organic polymer (POP) was synthesized and applied in the preparation of Pd/POP catalyst. Pd/POP exhibits high catalytic activity for Suzuki-Miyaura and Sonogashira reactions and is reusable in these heterogeneous catalytic reactions.

381

Nonlinear Optical Properties of Porphyrin Derivatives with Electron-donating or Electron-withdrawing Substituents

Pengxia Liang, Yongsheng Mi, Jinshuai Duan, Zhou Yang,* Dong Wang,* Hui Cao,* Wanli He,* Huai Yang*

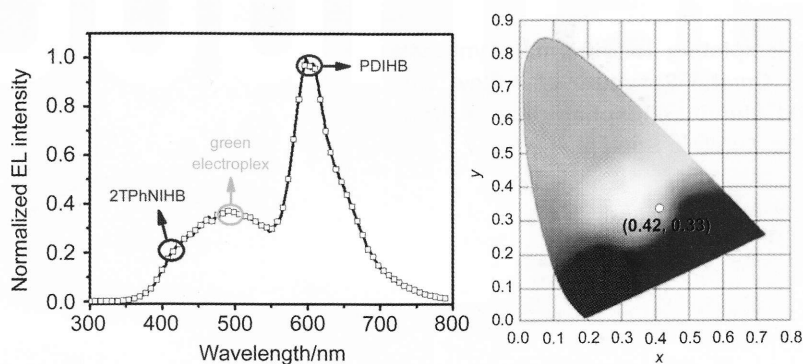


To investigate photoelectric properties of meso-extended porphyrin derivatives with electron-donating or electron-withdrawing substituents, a series of functionalized porphyrin materials have been designed and synthesized by Suzuki coupling reaction.

387

A Red-Emissive Sextuple Hydrogen-Bonding Self-Assembly Molecular Duplex Bearing Perylene Diimide Fluorophores for Warm-White Organic Light-Emitting Diode Application

Hui Zeng, Qingyu Huang, Jingjing Liu, Yan Huang, Jie Zhou, Suling Zhao,* Zhiyun Lu*

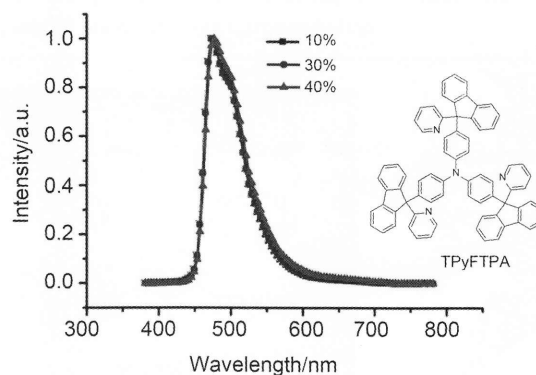


A red-emissive hydrogen-bonding self-assembly duplex was synthesized. The bulky self-assembly oligoamide strands are advantageous to the spatial isolation between the host and guest materials, hence trigger an inefficient energy transfer process. Based on it, a solution-processed warm-white OLED with simple device structure was acquired.

397

A Bulky Pyridinylfluorene/Triphenylamine Hybrid Used as Host Material for Heavily-Doped Blue Electrophosphorescent Devices

Xianghua Zhao,* Yukun Wu, Li Zhou, Nana Wu, Lin Tang, Yi Zhao,* Xiaosheng Li,* Dongxue Ding, Hui Xu

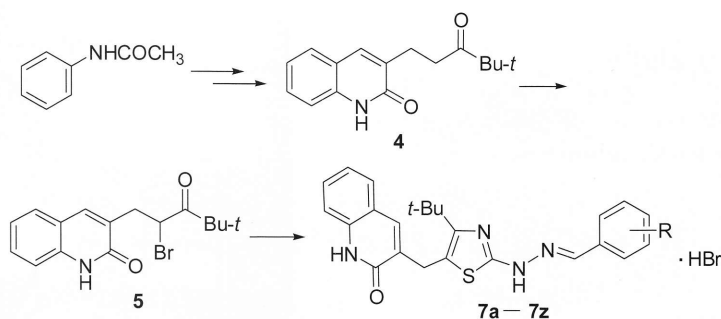


The performance of **TPYFPA**-based blue PhOLEDs show wide independent concentration ranging from 10% to 40%, which indicates the bulky **TPYFPA** might be a potential candidate for simplifying fabrication process and inexpensive devices.

403

Design, Synthesis, and Evaluation of 3-((4-(*t*-Butyl)-2-(2-benzylidenehydrazinyl)thiazol-5-yl)methyl)quinolin-2(1*H*)-ones as Neuraminidase Inhibitors

Yilin Fang, Mengwu Xiao, Aixi Hu,* Jiao Ye, Wenwen Lian, Ailin Liu*

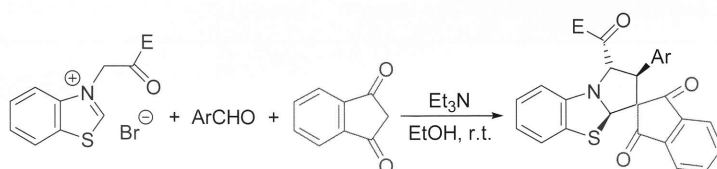


A series of novel 3-((4-(*t*-butyl)-2-(2-benzylidenehydrazinyl)thiazol-5-yl)methyl)quinolin-2(1*H*)-ones (**7a–7z**) were designed, synthesized and evaluated for their ability of inhibiting neuraminidase (NA) of influenza H1N1 virus. Compound **7i** with the scaffold of 2-(2-(2-methoxybenzylidene)hydrazinyl)thiazole was the best one, exhibiting moderate NA inhibitory activity with IC_{50} of 44.66 $\mu\text{mol/L}$.

412

Convenient Synthesis of Spiro[benzo[*d*]pyrrolo[2,1-*b*]thiazole-3,2'-indenes] Derivatives via Three-Component Reaction

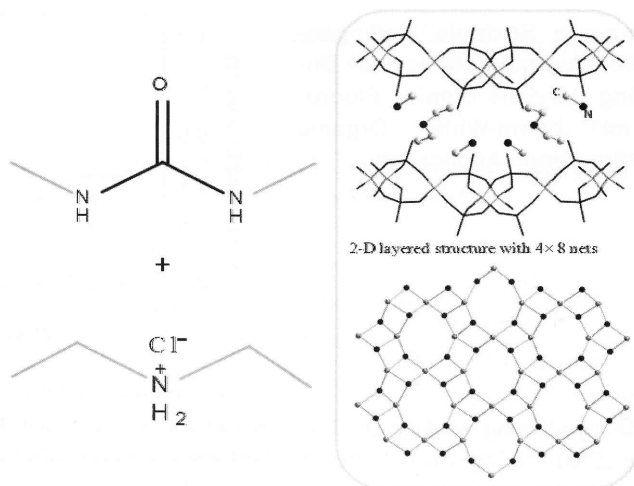
Guoliang Shen, Jing Sun, Chaoguo Yan*



The three-component reactions of *N*-phenacylbenzothiazolium bromides, aromatic aldehydes and indane-1,3-dione afforded functionalized spiro[benzo[*d*]pyrrolo[2,1-*b*]thiazole-3,2'-indenes] in good yields and with high diastereoselectivity.

419

Co-templating Ionothermal Synthesis and Crystal Structure of a New Layered Aluminophosphate from a Protic Deep Eutectic Solvent

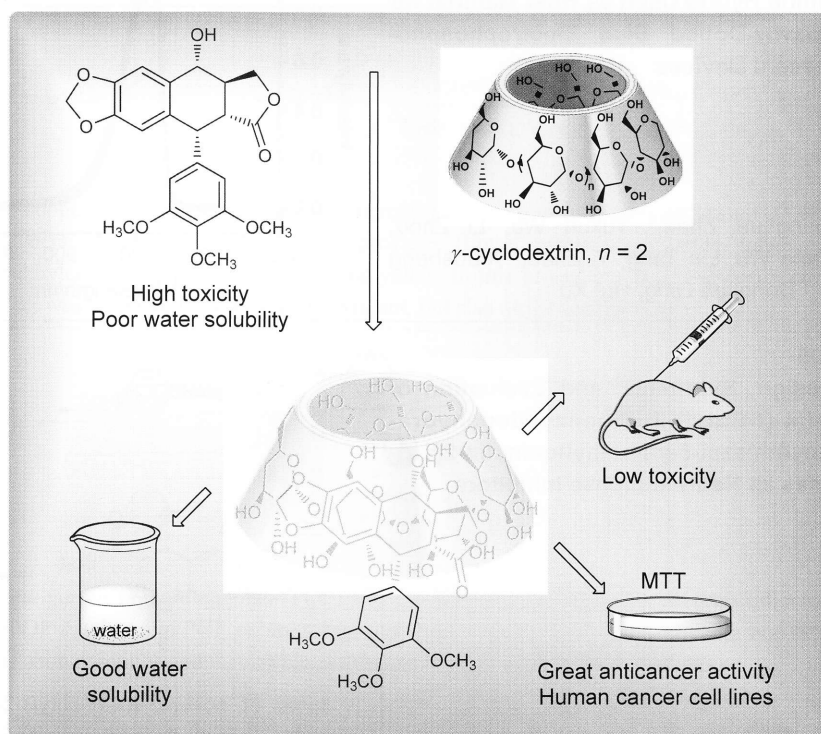


Yuan Li, Xiangdong Gong, Lei Liu,*
Jinxiang Dong

A new layered aluminophosphate with 4.8-network was synthesized via an *in situ* generated template as co-template for the first time from a protic deep eutectic mixture.

425

Inclusion Complex of Podophyllotoxin with γ -Cyclodextrin: Preparation, Characterization, Anticancer Activity, Water-Solubility and Toxicity



Yafei Guo, Yushun Zhang, Jiuling Li, Fen Zhao, Yang Liu, Min Su, Yubo Jiang, Yuqi Liu, Jihong Zhang,* Bo Yang,* Rui Yang*

Podophyllotoxin/ γ -cyclodextrin inclusion complex was successfully prepared and characterized. Compared with podophyllotoxin, the water solubility of the inclusion complex increased greatly; the toxicity reduced to a safety degree to mice; the anticancer activity was still great comparing with *cis*-platinum (control).