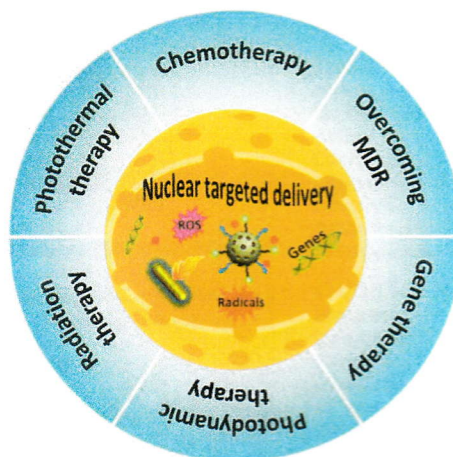


Chemistry Authors Up Close

481
Chemical Design of Nuclear-Targeting Mesoporous Silica Nanoparticles for Intra-nuclear Drug Delivery

Limin Pan, Jianlin Shi*

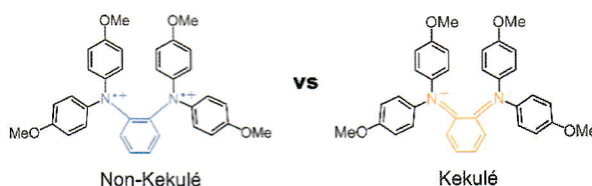


Nuclear-targeted delivery systems based on mesoporous silica nanoparticles were designed and constructed as efficient carriers of direct intra-nuclear delivery of therapeutic agents for *in situ* DNA damages. They are expected to provide new paradigms to efficient cancer therapy without side effects by the advanced nanotechnology.

Breaking Reports

487
Nitrogen Analogues of *o*-Quinodimethane with Unexpected non-Kekulé Diradical Character

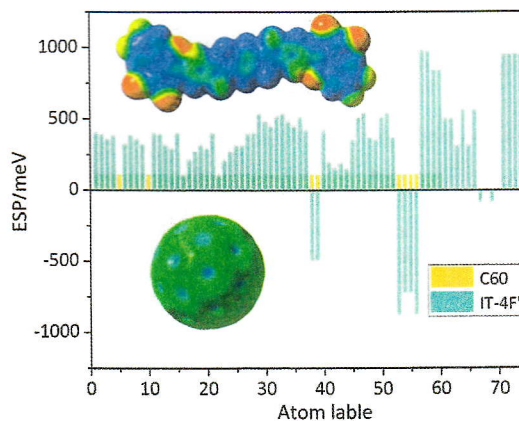
Tao Li, Cheng Cheng, Ningning Yuan, Lei Wang, Chao Chen, Gengwen Tan,* Xinping Wang*



Two-electron oxidations of three 1,2-di(bisphenylamino)-benzenes afforded a class of nitrogen analogues of *o*-quinodimethane, one of which features unexpected non-Kekulé diradical character, sharply different from *o*-quinodimethane.

491
Critical Role of Molecular Electrostatic Potential on Charge Generation in Organic Solar Cells

Huifeng Yao, Deping Qian, Hao Zhang, Yunpeng Qin, Bowei Xu, Yong Cui, Runnan Yu, Feng Gao,* Jianhui Hou*



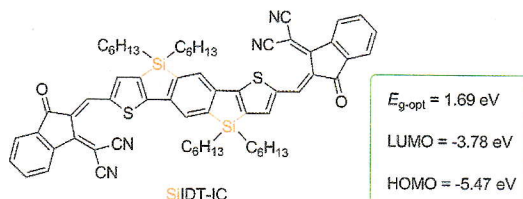
Non-fullerene acceptors show much larger and uneven ESP distributions than fullerene acceptors, which should play a crucial role in affecting the charge generation in OSCs.

Comprehensive Reports

495

Silaindacenodithiophene-Based Fused-Ring Non-Fullerene Electron Acceptor for Efficient Polymer Solar Cells

Yaowen Nian, Zhen Wang, Haiying Jiang, Shizhen Feng, Suhan Li, Lianjie Zhang, Yong Cao, Junwu Chen*



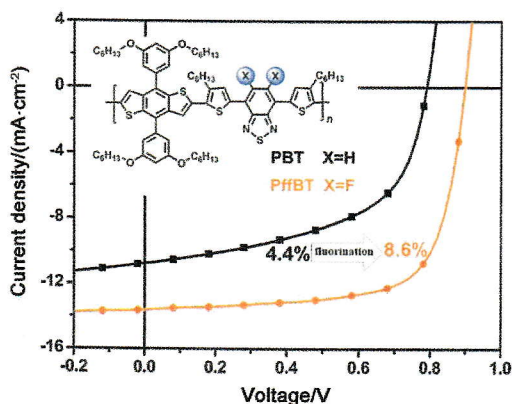
Silaindacenodithiophene (SiIDT), a Si-bridged fused ring, is introduced to construct a new narrow band gap non-fullerene acceptor. Its polymer solar cells combining a well-known PBDB-T donor can show a power conversion efficiency up to 8.16%.

Concise Reports

502

Effect of Fluorination on the Photovoltaic Properties of Medium Bandgap Polymers for Polymer Solar Cells

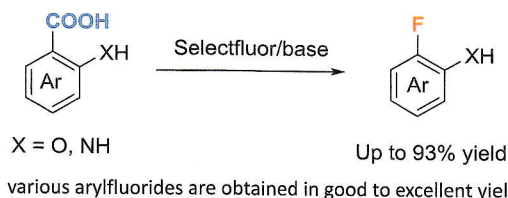
Huan Guo, Wanbin Li, Chunmei Chang, Xia Guo,* Maojie Zhang*



507

Decarboxylative Fluorination of Arylcarboxylic Acids Promoted by *ortho*-Hydroxy and Amino Groups

Dinghai Wang, Zheliang Yuan, Qilun Liu, Pinhong Chen, Guosheng Liu*

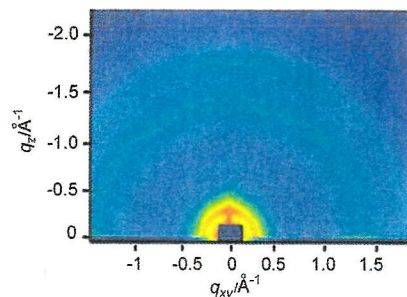
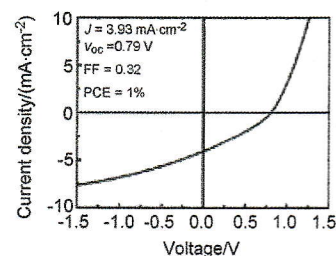
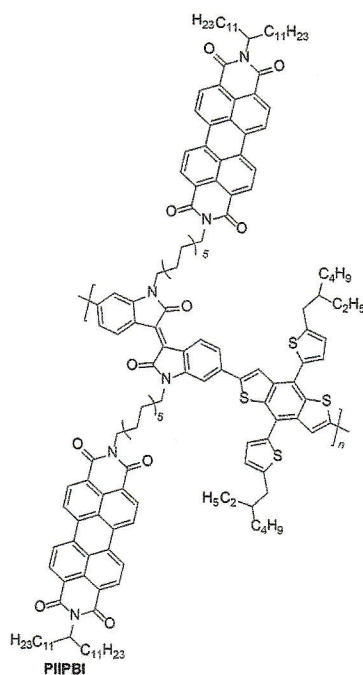


A novel decarboxylative fluorination process has been developed for the synthesis of *ortho*-hydroxy/amino arylfluorides from salicylic acid analogs, in which the *ortho*-hydroxy/amino groups play an important role in the transformation. In addition,

515

An Isoindigo-Based “Double-Cable” Conjugated Polymer for Single-Component Polymer Solar Cells

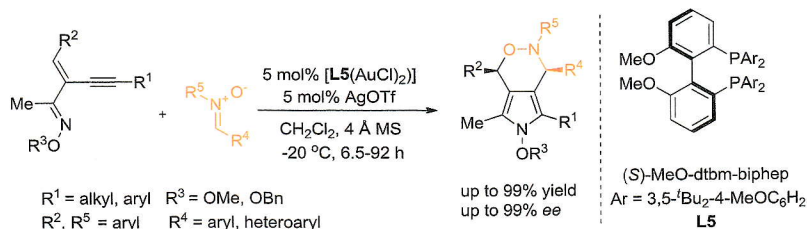
Changshi Yu, Yunhua Xu,* Cheng Li, Guitao Feng, Fan Yang, Junyu Li,* Weiwei Li*



An isoindigo-based conjugated polymer with perylene bisimide side chains was developed for application in single-component polymer solar cells.

519

Gold(I)-Catalyzed Diastereo- and Enantioselective Synthesis of Polysubstituted Pyrrolo[3,4-*d*]-[1,2]oxazines

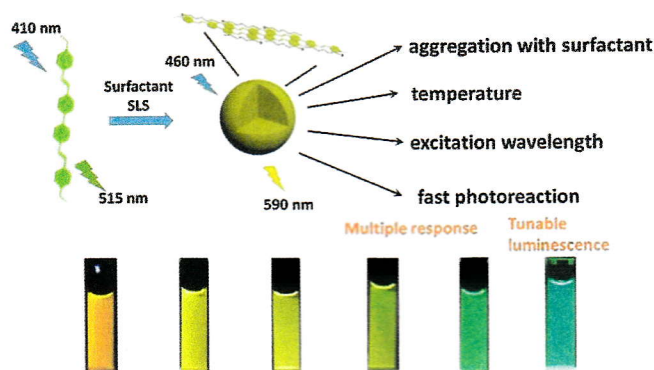


Mei Zhang, Xiaoyu Di, Mingrui Zhang, Junliang Zhang*

A gold(I)-catalyzed highly diastereo- and enantioselective 1,3-dipolar cycloaddition of oxime ethers with nitrones under mild conditions was developed, which provides an access to optically pure polysubstituted pyrrolo[3,4-*d*][1,2]oxazines.

526

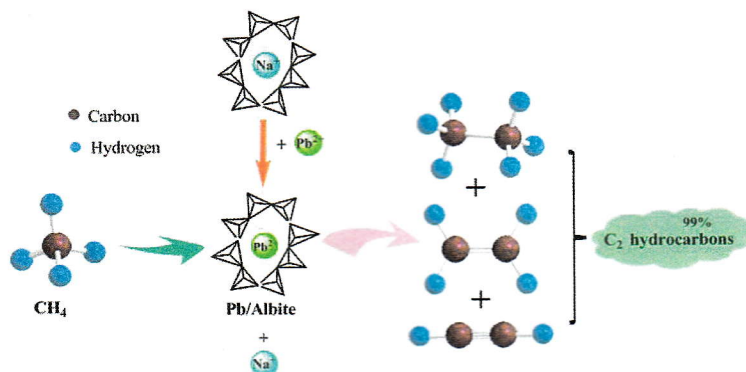
Multiple-Stimuli Responsive and Tunable Luminescent Supramolecular Assembly by Oligo(*p*-phenylvinylene) and Surfactant



Xu-Man Chen, Yong Chen, Yu Liu*

531

Non-Oxidative Methane Conversion Using Lead- and Iron-Modified Albite Catalysts in Fixed-Bed Reactor

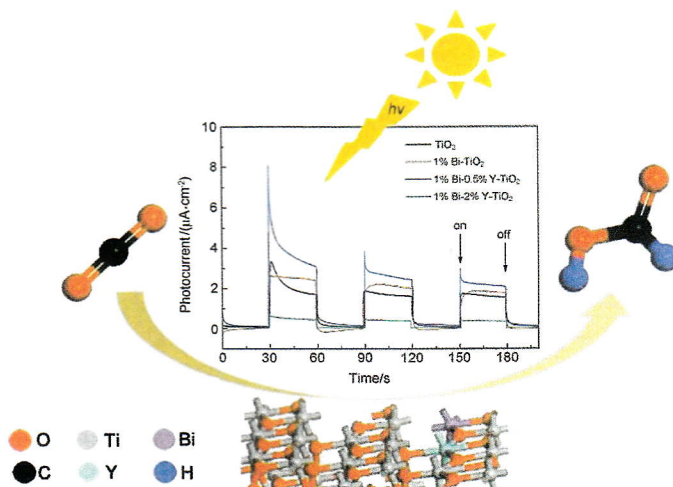


Ye Chen, Xin Wang, Xuegang Luo, Xiaoyan Lin, Yu Zhang*

Over the modified Pb/Albite catalyst, methane was converted into C₂ hydrocarbons with a selectivity of 99%.

538

Bi-, Y-Codoped TiO₂ for Carbon Dioxide Photocatalytic Reduction to Formic Acid under Visible Light Irradiation



Pengju Du, Tongming Su, Xuan Luo,* Xiantai Zhou, Zuzeng Qin,* Hongbing Ji, Jianhua Chen

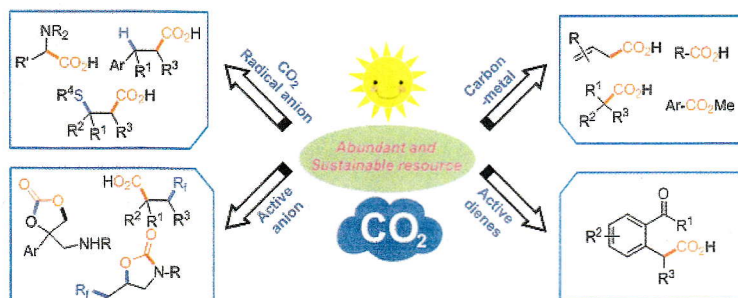
The HCOOH yield by using 1% Bi-0.5% Y-TiO₂ as a photocatalyst was 1.17 times that by using 1% Bi-TiO₂, and 2.16 times that by using pure TiO₂.

Recent Advances

545

Homogeneous Light-Driven Catalytic Direct Carboxylation with CO₂

Fen Tan,* Guoyin Yin*



Meeting Our New Members of Editorial Board of Rising Stars (pages 555–562)