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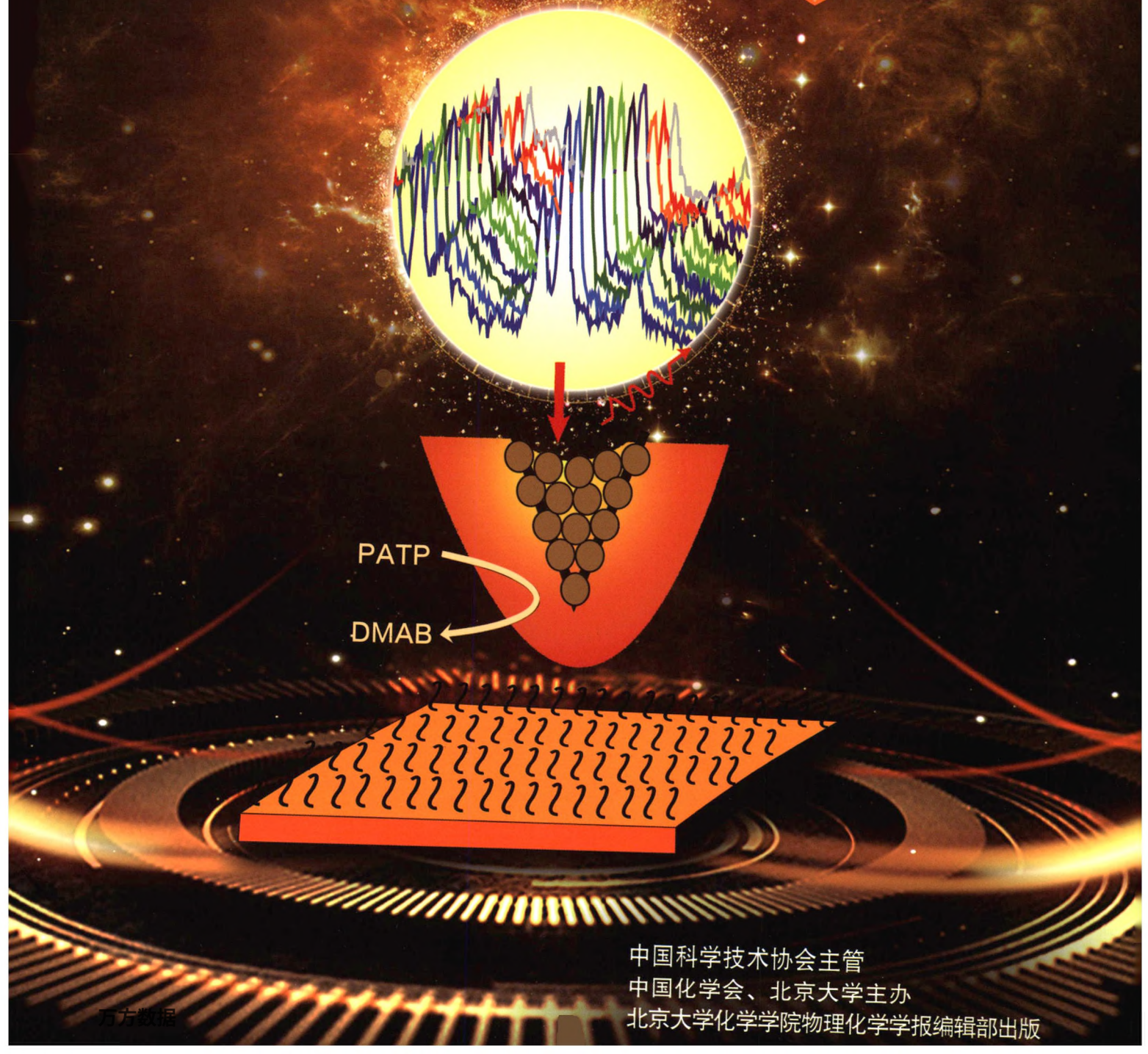

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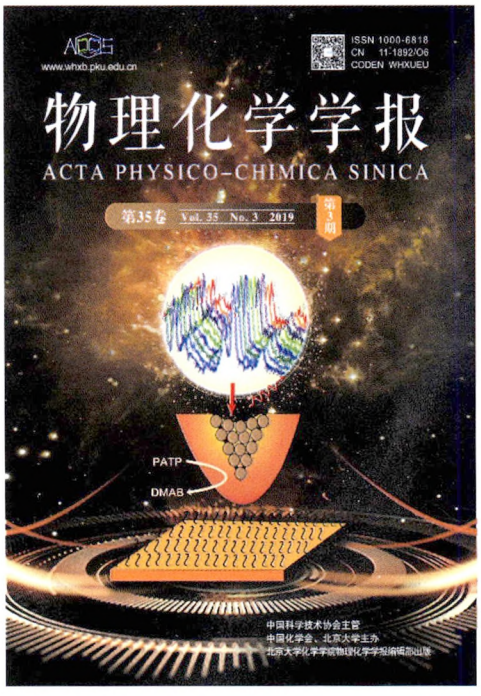
ACTA PHYSICO-CHIMICA SINICA, Vol. 35, No. 3

COVER



The cover image presents a plasmonic catalytical reaction on the AgNPs modified fiber probe. On page 307, ZHANG *et al.* demonstrate the application of the LSPR fiber probe with internal excitation for plasmonic catalysis.

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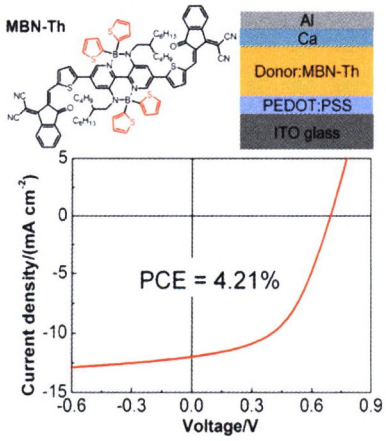
刘方彬，刘俊，王利祥



An Organoboron Compound with a Thienyl Substituent as an Electron Acceptor for Organic Solar Cells

LIU Fangbin, LIU Jun, WANG Lixiang

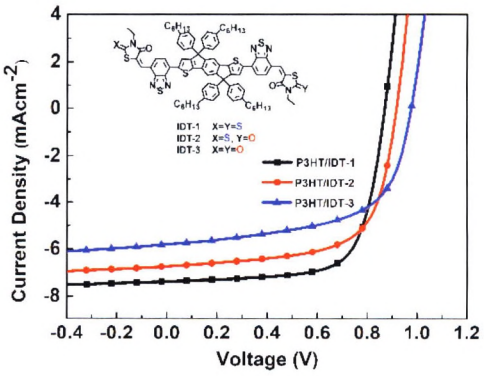
Acta Phys. -Chim. Sin. **2019,** *35* (3), 251–256

An organoboron compound with a thienyl substituent on the boron atom was synthesized to produce a small molecular electron acceptor, which exhibited a wide absorption spectrum and excellent photovoltaic performance.

论文　ARTICLE

以绕丹宁和噻唑烷-2,4-二酮为端基的不对称结构有机受体分子的设计合成与构性关系探讨

杨阳，蒋秀，占肖卫，陈兴国



Designing an Organic Acceptor with Unsymmetrical Structure Based on Rhodanine and Thiazolidine-2,4-dione Units to Study the Structure–Property Relationship

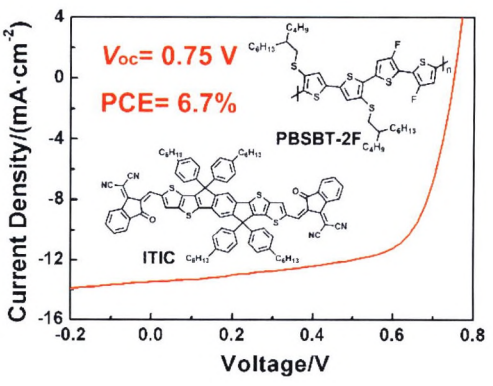
YANG Yang, JIANG Xiu, ZHAN Xiaowei, CHEN Xingguo

Acta Phys. -Chim. Sin. **2019,** *35* (3), 257–267

An unsymmetrical small molecular acceptor using rhodanine and thiazolidine-2,4-dione units as the terminal groups has been designed to study the structure-property relationship.

基于一种新型聚噻吩衍生物为给体的非富勒烯聚合物太阳能电池

许青青，常春梅，李万宾，郭冰，国霞，张茂杰



Non-Fullerene Polymer Solar Cells Based on a New Polythiophene Derivative as Donor

XU Qingqing, CHANG Chunmei, LI Wanbin, GUO Bing, GUO Xia, ZHANG Maojie

Acta Phys. -Chim. Sin. **2019,** *35* (3), 268–274

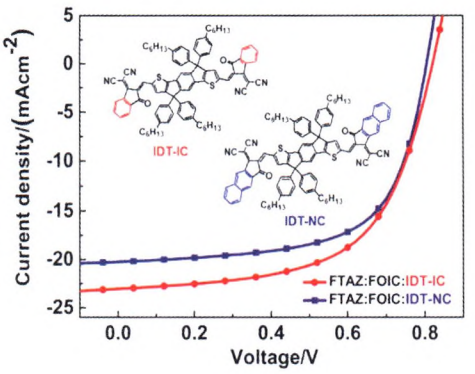
Polymer solar cells based on a new polythiophene derivative (PBSBT-2F) as the donor exhibited a PCE of 6.7%.

第三组份端基对有机太阳能电池性能的影响

薛佩瑶，张俊祥，辛景明，RECH Jeromy，
李腾飞，孟凯鑫，王嘉宇，马伟，尤为，
MARDER Seth R.，韩平畴，占肖卫

Effects of Terminal Groups in Third Components on Performance of Organic Solar Cells

XUE Peiyao, ZHANG Junxiang, XIN Jingming,
RECH Jeromy, LI Tengfei, MENG Kaixin,
WANG Jiayu, MA Wei, YOU Wei,
MARDER Seth R., HAN Ray P. S., ZHAN Xiaowei



Acta Phys. -Chim. Sin. **2019,** *35* (3), 275–283

Effects of terminal groups in third components on performance of non-fullerene ternary-blend organic solar cells are investigated.

氧分压对固体氧化物电解池性能的影响

侯权，关成志，肖国萍，王建强，朱志远

Effect of Oxygen Partial Pressure on Solid Oxide Electrolysis Cells

HOU Quan, GUAN Chengzhi, XIAO Guoping,
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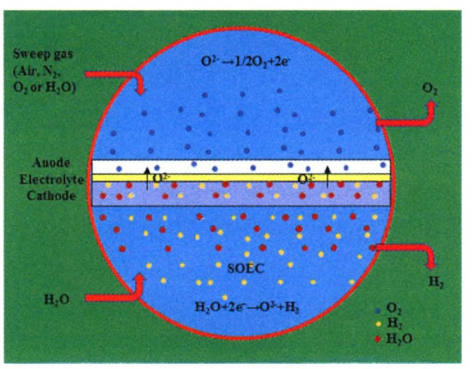


Acta Phys. -Chim. Sin. **2019,** *35* (3), 284–291

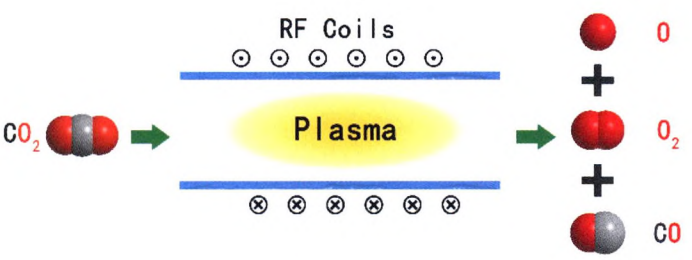
The composition and oxygen pressure of the sweep gas significantly affect the performance of an SOEC cell.

射频放电等离子体中 CO_2 及 CO_2-H_2 混合气转化反应的原位研究

杨瑞龙，张笛宇，朱康伟，周寰林，叶小球，
KLEYN Aart W.，胡殷，黄强

In Situ Study of the Conversion Reaction of CO_2 and CO_2-H_2 Mixtures in Radio Frequency Discharge Plasma

YANG Ruilong, ZHANG Diyu, ZHU Kangwei,
ZHOU Huanlin, YE Xiaoqiu, KLEYN Aart W.,
HU Yin, HUANG Qiang



Acta Phys. -Chim. Sin. **2019,** *35* (3), 292–298

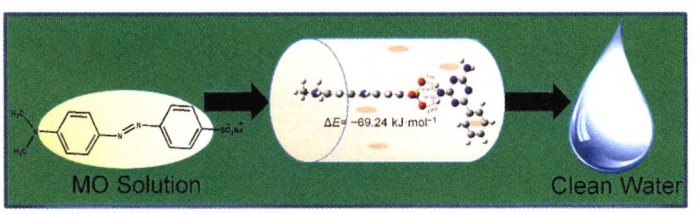
Non-thermal plasma could achieve CO_2 conversion near room temperature without catalysts or the use of non-earth-abundant materials.

新型芳香三嗪超交联多孔聚合物去除水溶液中甲基橙

何妍，李豪，周莉，徐婷，彭昌军，刘洪来

Removal of Methyl Orange from Aqueous Solutions by a Novel Hyper-Cross-Linked Aromatic Triazine Porous Polymer

HE Yan, LI Hao, ZHOU Li, XU Ting,
PENG Changjun, LIU Honglai



Acta Phys. -Chim. Sin. **2019,** *35* (3), 299–306

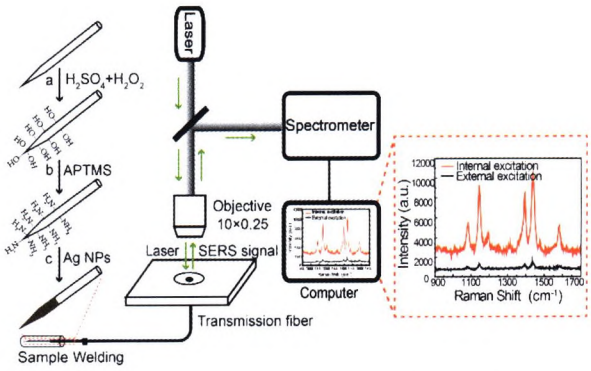
A novel hyper-cross-linked aromatic triazine porous polymer (HAPP) can strongly adsorb methyl orange (MO) from aqueous solutions.

Ag 纳米粒子修饰光纤探针在等离激元催化反应中的应用

张书山，周剑章，吴德印，田中群

Application of Ag Nanoparticle-Modified Fiber Probe for Plasmonic Catalysis Reaction

ZHANG Shushan, ZHOU Jianzhang, WU Deyin, TIAN Zhongqun



An Ag NP-modified fiber probe with internal excitation demonstrates feasibility and superiority for application in plasmonic catalysis.

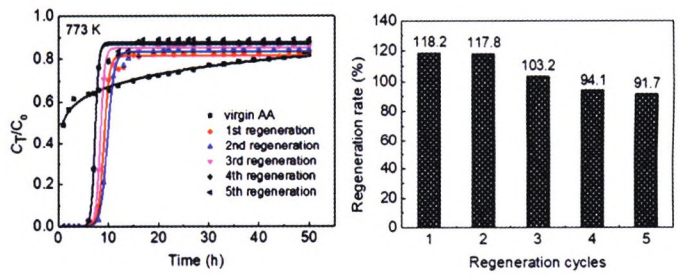
Acta Phys. -Chim. Sin. **2019,** *35* (3), 307–316

活性氧化铝及其再生氧化铝对水中氟离子的吸附

徐向宇，廖艳清，孙建川，王旭辉，陈帅奇，吕志，宋家庆

Removal of Fluorides from Aqueous Solutions Using Fresh and Regenerated Activated Alumina

XU Xiangyu, LIAO Yanqing, SUN Jianchuan, WANG Xuhui, CHEN Shuaiqi, LV Zhi, SONG Jiaqing



The adsorption capacity of activated alumina increased because the amount of Al—OH during adsorption increased after regeneration.

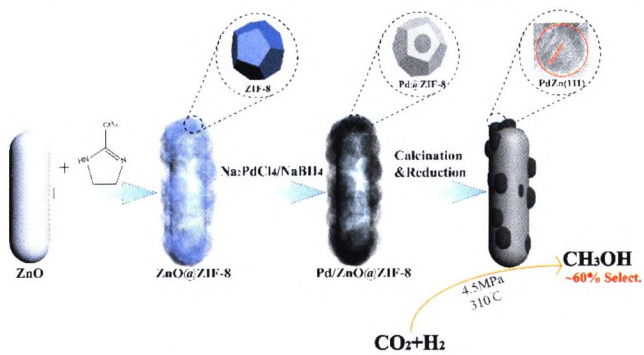
Acta Phys. -Chim. Sin. **2019,** *35* (3), 317–326

利用 ZnO@ZIF-8 核壳结构构建高选择性、高稳定性的 Pd/ZnO 催化剂用于 CO_2 加氢制甲醇

尹雅芝，胡兵，刘国亮，周晓海，洪昕林

ZnO@ZIF-8 Core-Shell Structure as Host for Highly Selective and Stable Pd/ZnO Catalysts for Hydrogenation of CO_2 to Methanol

YIN Yazhi, HU Bing, LIU Guoliang, ZHOU Xiaohai, HONG Xinlin



Non-thermal plasma could achieve CO_2 conversion near room temperature without catalysts or the use of non-earth-abundant materials.

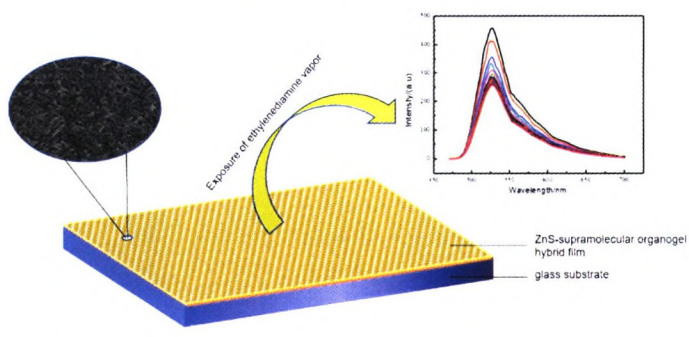
Acta Phys. -Chim. Sin. **2019,** *35* (3), 327–336

基于 ZnS 纳米粒子的有机凝胶荧光薄膜的制备及其传感性能

夏慧芸，耿通，赵旭，李芳芳，王凤燕，高莉宁

Preparation and Sensing Properties of Organic Gel Fluorescence Films Based on ZnS Nanoparticles

XIA Huiyun, GENG Tong, ZHAO Xu, LI Fangfang, WANG Fengyan, GAO Lining



A selectively photoluminescent ZnS-organogel hybrid film was fabricated for sensing volatile organic amine vapors.

Acta Phys. -Chim. Sin. **2019,** *35* (3), 337–344

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