



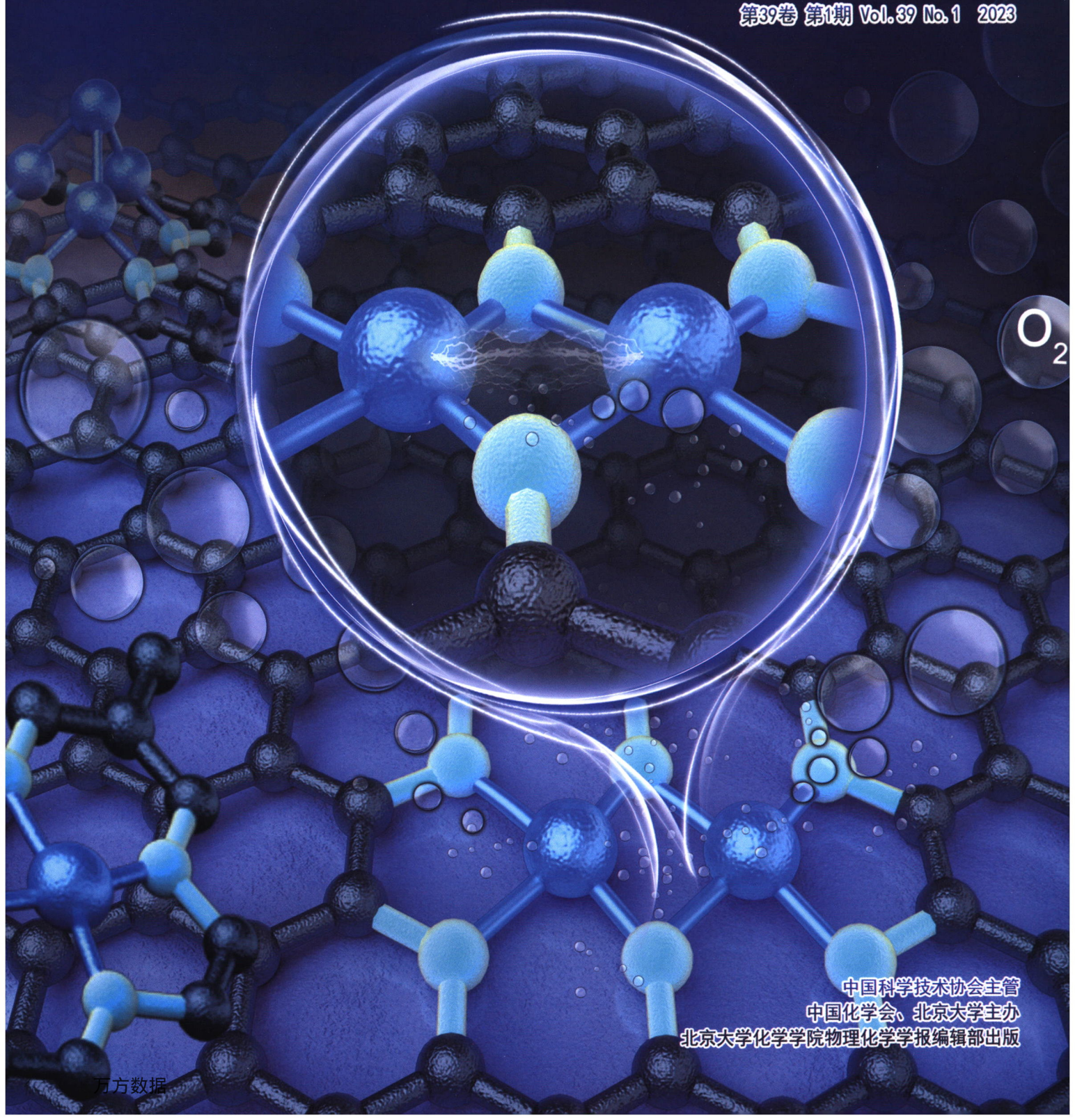
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物理化学学报

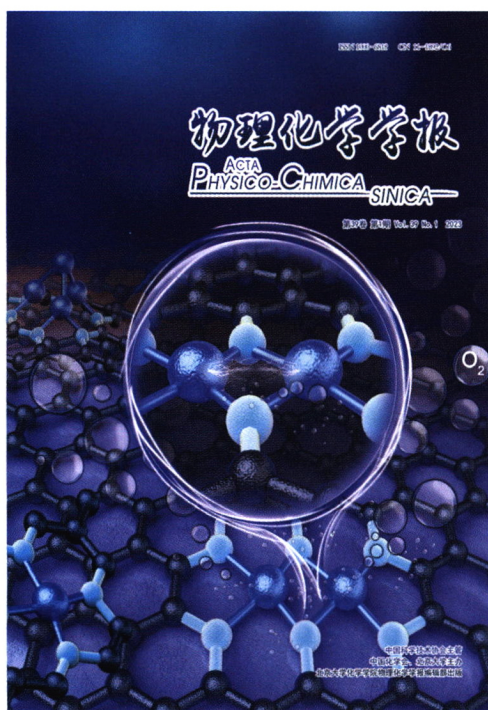
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COVER



The cover image presents the structure-activity relationship of the oxygen evolution reaction (OER) by an atomic-scale cobalt-based nitrogen-carbon catalyst. In article No. 2207007, Wu *et al.* designed various Co-N-C configurations based on first-principles calculations to interpret the origin of the active site activity of OER electrocatalysts and predicted the theoretical lowest overpotential of 0.23 V by volcanic curves.

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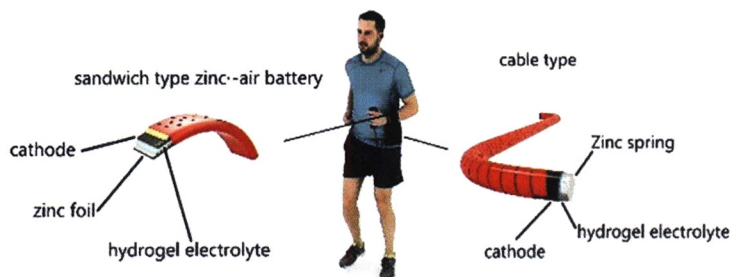
甲烷气相选择氧化反应硼基催化剂的研究(Boron-based Catalysts for Selective Oxidation of Methane in Gas Phase)	徐冰君(Bingjun Xu) (2012030)
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Recent Development and Perspectives of Flexible Zinc-Air Batteries

Hao-Tian Teng, Wen-Tao Wang, Xiao-Feng Han, Xiang Hao, Ruizhi Yang, Jing-Hua Tian



Acta Phys. -Chim. Sin. **2023**, *39* (1), 2107017

doi: 10.3866/PKU.WHXB202107017

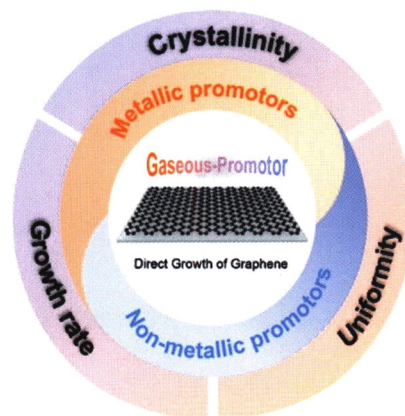
Cable type and sandwich type of flexible zinc air batteries show promising potential to be applied in wearable electronic devices.

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刘若娟, 刘冰之, 孙靖宇, 刘忠范

Gaseous-Promotor-Assisted Direct Growth of Graphene on Insulating Substrates: Progress and Prospects

Ruojuan Liu, Bingzhi Liu, Jingyu Sun, Zhongfan Liu



Acta Phys. -Chim. Sin. **2023**, *39* (1), 2111011

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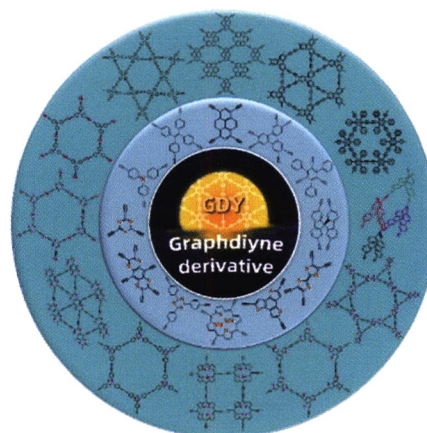
In gaseous-promotor-assisted strategies, graphene with high crystallinity, optimized uniformity, and enhanced growth rate can be directly grown on insulating substrates.

石墨炔衍生物的合成与应用

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Xiaohui Li, Xiaodong Li, Quanhu Sun, Jianjiang He, Ze Yang, Jinchong Xiao, Changshui Huang



Acta Phys. -Chim. Sin. **2023**, *39* (1), 2206029

doi: 10.3866/PKU.WHXB202206029

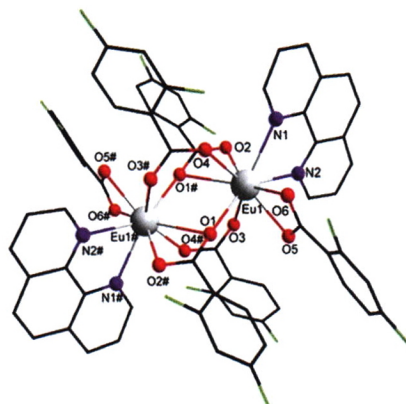
The design, synthesis, structural characterization, and potential applications of GDY derivatives have been examined.

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Construction, Thermochemistry, and Fluorescence Properties of Novel Lanthanide Complexes Synthesized from Halogenated Aromatic Carboxylic Acids and Nitrogen-Containing Ligands

Chenlu Wang, Suling Xu, Ning Ren, Jianjun Zhang



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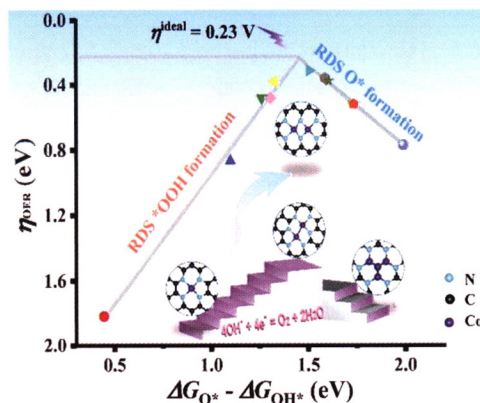
Five new Ln(III) complexes were synthesized, and their physicochemical, thermochemical, and fluorescence properties were investigated.

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Structure-Activity Relationship of Atomic-Scale Cobalt-Based N-C Catalysts in the Oxygen Evolution Reaction

Mingliang Wu, Yehui Zhang, Zhanzhao Fu, Zhiyang Lyu, Qiang Li Jinlan Wang



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doi: 10.3866/PKU.WHXB202207007

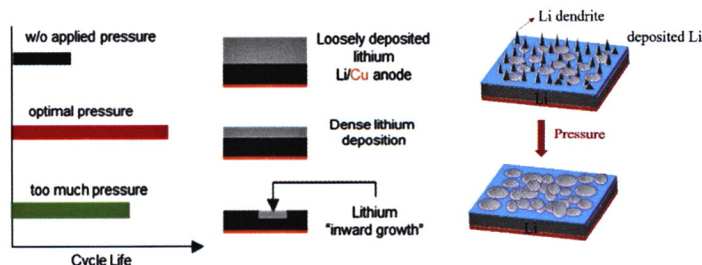
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Tracking Pressure Changes and Morphology Evolution of Lithium Metal Anodes

Yingying Zhu, Yong Wang, Miao Xu, Yongmin Wu, Weiping Tang, Di Zhu, Yu-Shi He, Zi-Feng Ma, Linsen Li



Acta Phys. -Chim. Sin. **2023**, *39* (1), 2110040

doi: 10.3866/PKU.WHXB202110040

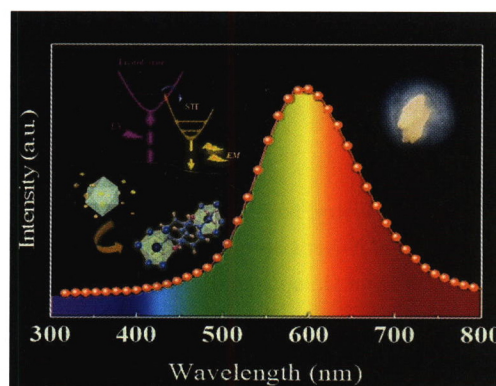
Moderate pressure is favorable for Li metal batteries, whereas excessive pressure will have a negative impact.

新型(4-HBA)SbX₅·H₂O 类钙钛矿单晶及其卤素结构对发光特性的调控

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Halogen Regulation for Enhanced Luminescence in Emerging (4-HBA)SbX₅·H₂O Perovskite-Like Single Crystals

Bihao Zhuang, Zicong Jin, Dehua Tian, Suiyi Zhu, Linqian Zeng, Jiandong Fan, Zaizhu Lou, Wenzhe Li



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Acta Phys. -Chim. Sin. **2023**, 39 (1), 2209007

doi: 10.3866/PKU.WHXB202209007

评论 EDITORIAL

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