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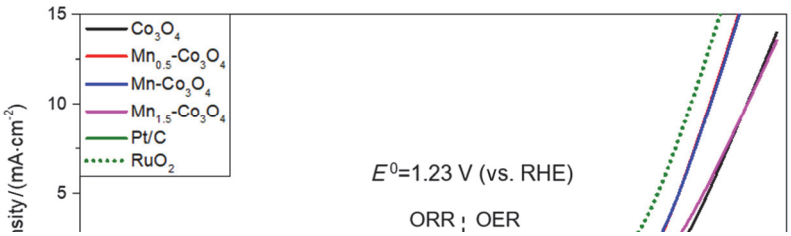
研究论文

综述

* 通信联系人.

Bifunctional Electrocatalysts of Mn-doped Co_3O_4 for Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Medium



Shui, Ziyi; Yu, Sile; Lu, Wei; Xu, Liuyun; Liu, Qingye; Zhao, Wei*; Liu, Yilun

Acta Chim. Sinica **2024**, *82*(10), 1039-1049

Mn-Co_3O_4 bimetallic oxide is fabricated by accurately controlling the material microstructure and adjusting the Co/Mn electron environment.

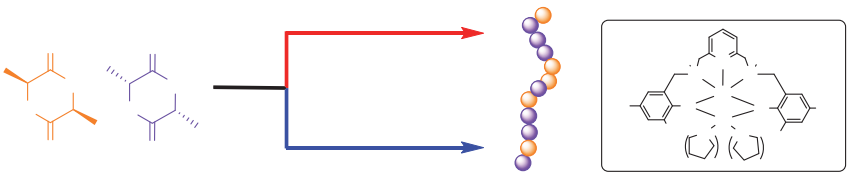
Theoretical Study of Hydroxyl- and Amino-substituted Amidoxime Ligands for Extraction of Uranium from Seawater

Huang, Yichen; Nie, Changming*; Wang, Congzhi*; Chen, Shusen; Song, Yan; Li, Hao; Shi, Weiqun*

Acta Chim. Sinica **2024**, *82*(10), 1050-1057

The mechanism of uranium extraction from seawater by amino- and hydroxyl-substituted amidoxime derivatives has been theoretically investigated. The hydroxyl-substituted amidoxime ligand HL_1 is predicted to be a potential ligand for extraction of uranium from seawater.

Syntheses of Sodium and Potassium Complexes Based on Pyridine-2,6-diyl-bis(methylene)-bridged Bis-(aminophenolate) Ligands and Catalytic Ring-opening Polymerization of *rac*-Lactide



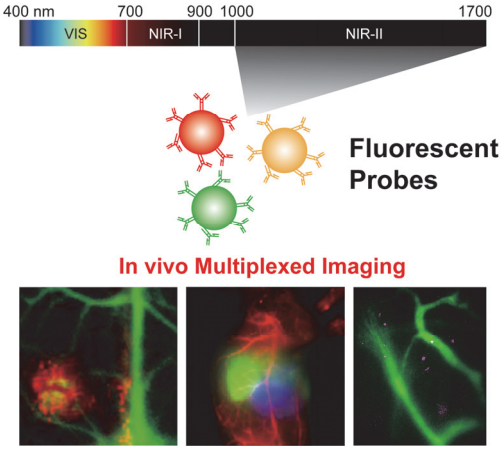
Wang, Jingyan; Ma, Haiyan*

Acta Chim. Sinica **2024**, *82*(10), 1058-1068

The syntheses and characterization of four novel binuclear sodium and potassium complexes supported by pyridine-2,6-diyl-bis(methylene)-bridged bis(aminophenolate) ligands were reported. In the presence of excess benzyl alcohol as co-initiator, these complexes showed high catalytic activities towards the ring-opening polymerization (ROP) of *rac*-lactide (*rac*-LA) with turnover frequency (TOF) values up to 46552 h^{-1}, producing isotactic bias PLAs with P_m=0.51～0.57 at ambient temperature, which could be further improved to P_m=0.62～0.65 at −50 ℃.

Review

Research Progress on Fluorescent Probes in the Second Near-Infrared Window for *In Vivo* Multiplexed Imaging

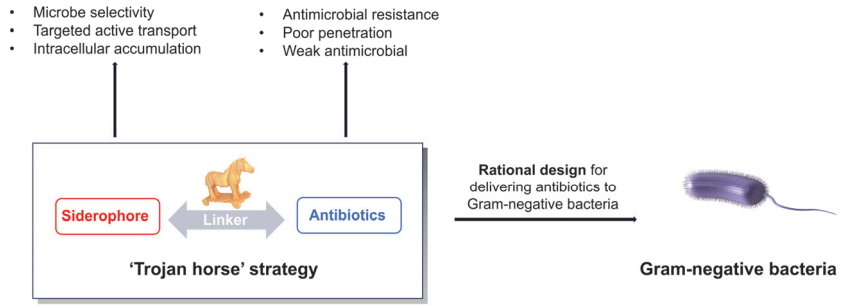


Jiang, Li; Chen, Zihan; Fan, Yong*

Acta Chim. Sinica **2024**, *82*(10), 1069-1085

This review summarizes the design of NIR-II fluorescent probes and multiplexed imaging techniques for NIR-II bioimaging applications.

Siderophore-Antibiotic Conjugates: Applications of the 'Trojan horse' Strategy in Anti-Gram-Negative Bacteria Infection



Liu, Chang; Wang, Wengui; Wang, Shoufeng*

Acta Chim. Sinica **2024**, *82*(10), 1086-1108

Recent advances in siderophore-antibiotic conjugates against Gram-negative bacteria based on "Trojan horse" strategy were reviewed in this article. Taking gram-negative bacteria such as *A. baumannii*, *E. coli* and *P. aeruginosa* as representatives, the review introduces in detail the relevant research on these conjugates against Gram-negative bacteria, and proposes the future development direction of the "Trojan Horse" strategy.

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