

# 化学学报

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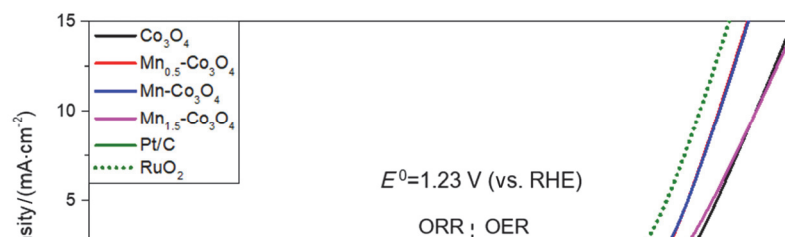
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\* 通信联系人.





### Bifunctional Electrocatalysts of Mn-doped $\text{Co}_3\text{O}_4$ for Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Medium



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

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

Mn- $\text{Co}_3\text{O}_4$  bimetallic oxide is fabricated by accurately controlling the material microstructure and adjusting the Co/Mn electron environment.

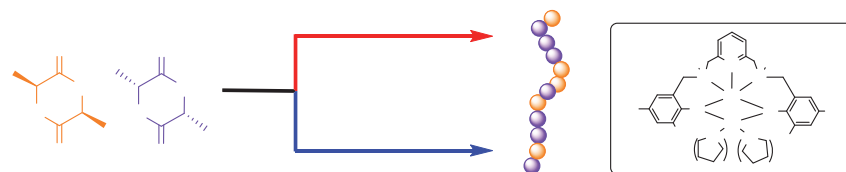
### Theoretical Study of Hydroxyl- and Amino-substituted Amidoxime Ligands for Extraction of Uranium from Seawater

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<sub>1</sub> 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



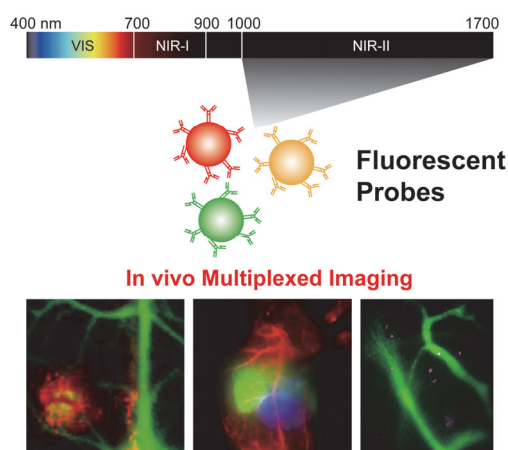
Wang, Jingyan; Ma, Haiyan\*

*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<sup>-1</sup>, producing isotactic bias PLAs with  $P_m=0.51\sim0.57$  at ambient temperature, which could be further improved to  $P_m=0.62\sim0.65$  at  $-50\text{ }^\circ\text{C}$ .

## Review

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



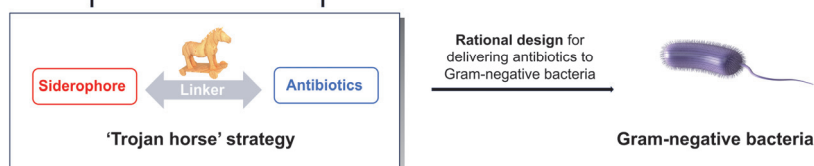
Jiang, Li; Chen, Zihan; Fan, Yong\*

*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

- Microbe selectivity
- Targeted active transport
- Intracellular accumulation
- Antimicrobial resistance
- Poor penetration
- Weak antimicrobial



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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