



## Graphical Abstracts/Chin Chem Lett 29 (2018) iii-xiv

## Special Column: Young Scientists at ICCAS

## Editorial

## A special column highlighting young scientists at Institute of Chemistry, Chinese Academy of Sciences (ICCAS)

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Zhixun Luo, Zhenzhong Yang

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## Review

## Recent advances of rhenium separation and enrichment in China: Industrial processes and laboratory trials

Chinese Chemical Letters 29 (2018) 345

Yin Wang<sup>a,b</sup>, Congyang Wang<sup>c,d</sup><sup>a</sup> Radiochemistry Laboratory, School of Nuclear Science and Technology, Lanzhou University, Lanzhou 730000, China<sup>b</sup> Key Laboratory of Special Function Materials and Structure Design, Ministry of Education, Lanzhou 730000, China<sup>c</sup> Beijing National Laboratory for Molecular Sciences, CAS Key Laboratory of Molecular Recognition and Function, CAS Research/Education Center for Excellence in Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China<sup>d</sup> University of Chinese Academy of Sciences, Beijing 100049, China

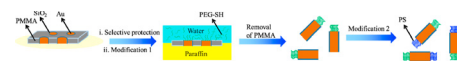
The recent progresses in the separation and enrichment of rhenium were reviewed in this paper, especially, the advances in China.



## Communications

Cable-like Au@SiO<sub>2</sub> Janus composite nanorods

Chinese Chemical Letters 29 (2018) 353

Tian-Hao Han<sup>a,b</sup>, Fu-Xin Liang<sup>a</sup>, Zhen-Zhong Yang<sup>a,b</sup><sup>a</sup> State Key Laboratory of Polymer Physics and Chemistry, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China<sup>b</sup> University of Chinese Academy of Sciences, Beijing 100190, ChinaCable-like Au@SiO<sub>2</sub> Janus composite nanorods are fabricated by selectively modifying two ends of nanorods which are obtained via membrane synthesis and skiving. This method can be easily extended to other systems with varied compositions, deriving a huge family of Janus composite nanorods.

## Ordering effects of cholesterol on sphingomyelin monolayers investigated by high-resolution broadband sum-frequency generation vibrational spectroscopy

Yiyi Li<sup>a,b</sup>, Rongjuan Feng<sup>a</sup>, Lu Lin<sup>a</sup>, Minghua Liu<sup>c</sup>, Yuan Guo<sup>a,b</sup>, Zhen Zhang<sup>a</sup>

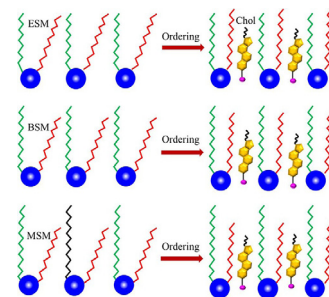
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After adding cholesterol, the sphingosine backbones (red) of the three nature SMs become more ordered, and the N-linked acyl chain (blue) remains unaltered.

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## Spectroscopic identification towards tunable mesoscale aggregates of zinc tetraphenylporphyrin for materials

Pan An<sup>a</sup>, Longtian Kang<sup>b</sup>, Zhen Tang<sup>c</sup>, Peifeng Su<sup>c</sup>, Zhixun Luo<sup>a</sup>

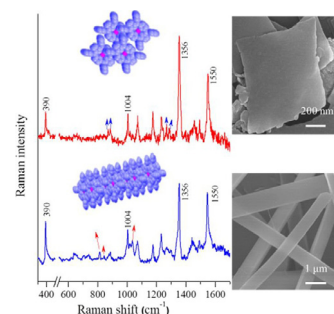
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We report a spectroscopic study towards the different aggregation states involved in Zinc tetraphenylporphyrin (ZnTPP) nanorods, and nanosheets. The molecular packing behavior of ZnTPP is illustrated, and weak intermolecular interactions dominate the ZnTPP aggregates in mesoscale.

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## Ovalbumin-stabilized gold nanoclusters with ascorbic acid as reducing agent for detection of serum copper

Yifan Chen<sup>a,c</sup>, Juan Qiao<sup>a,b</sup>, Qianrong Liu<sup>a,d</sup>, Li Qj<sup>a,b</sup>

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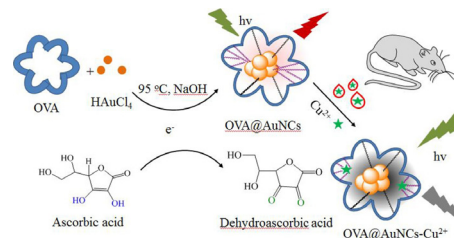
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OVA@AuNCs was successfully synthesized with ascorbic acid as a reducing agent. Based on the surface electron density decrease-induced fluorescence quenching principle, the resultant fluorescent probe provided high sensitivity and selectivity for sensing rat serum copper ions.

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## A near-infrared porphyrin-based electron acceptor for non-fullerene organic solar cells

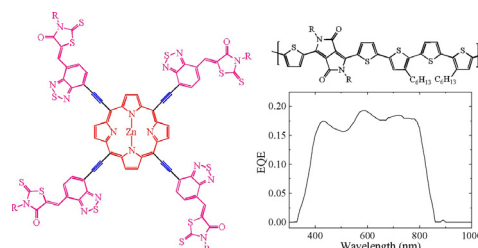
Yiting Guo<sup>a,b</sup>, Andong Zhang<sup>a,b</sup>, Cheng Li<sup>a</sup>, Weiwei Li<sup>a</sup>, Daoben Zhu<sup>a</sup>

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A star-shaped electron acceptor with porphyrin as core and rhodanine-benzothiadiazole as end groups linked with ethynyl units was developed for non-fullerene solar cells, in which a PCE of 1.9% with broad photo response was achieved when combining with a diketopyrrolopyrrole-polymer as electron donor.

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