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## IN THIS ISSUE

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### Cover

See Jesse V. Jokerst *et al.*, pp. 7681–7741. Image reproduced by permission of Jesse V. Jokerst and Zhicheng Jin from *Chem. Soc. Rev.*, 2024, 53, 7681. Artwork by Zhicheng Jin.



### Inside cover

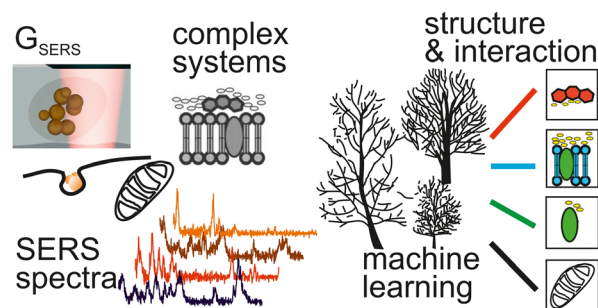
See Janina Kneipp *et al.*, pp. 7641–7656. Image reproduced by permission of Heinrich Kittel and Janina Kneipp from *Chem. Soc. Rev.*, 2024, 53, 7641.

## TUTORIAL REVIEWS

7641

### SERS microscopy as a tool for comprehensive biochemical characterization in complex samples

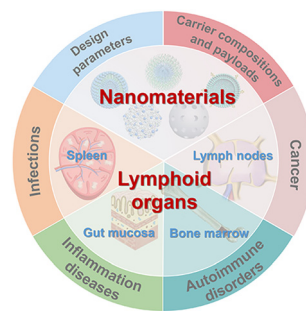
Janina Kneipp,\* Stephan Seifert and Florian Gärber



7657

### Lymphoid organ-targeted nanomaterials for immunomodulation of cancer, inflammation, and beyond

Jessica C. Hsu, Peng Liu, Yangmeihui Song, Wenyu Song, Rachel J. Saladin, Ying Peng, Shuo Hu, Xiaoli Lan and Weibo Cai\*



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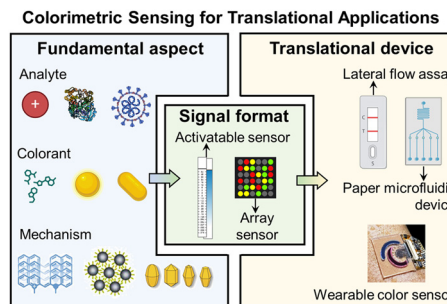


## REVIEW ARTICLES

7681

### Colorimetric sensing for translational applications: from colorants to mechanisms

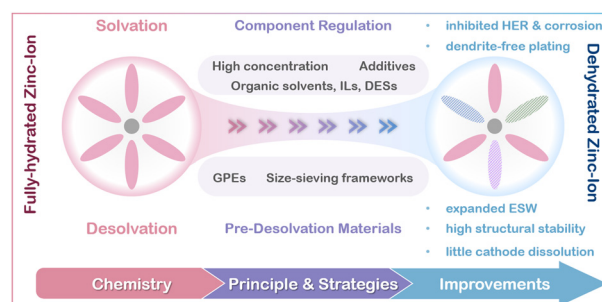
Zhicheng Jin, Wonjun Yim, Maurice Retout, Emily Housel, Wenbin Zhong, Jiajing Zhou, Michael S. Strano and Jesse V. Jokerst\*



7742

### Recent advances in zinc-ion dehydration strategies for optimized Zn–metal batteries

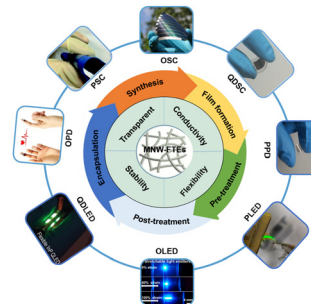
Haoyu Li, Sijie Li, Ruilin Hou, Yuan Rao, Shaohua Guo, Zhi Chang\* and Haoshen Zhou\*



7784

### Metal nanowire-based transparent electrode for flexible and stretchable optoelectronic devices

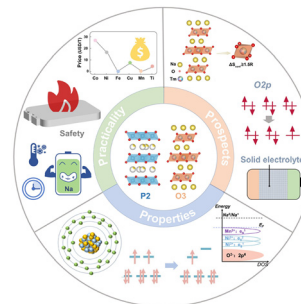
Yu Ding, Sixing Xiong, Lulu Sun, Yiying Wang, Yinhua Zhou, Yaowen Li, Jun Peng, Kenjiro Fukuda,\* Takao Someya,\* Ruiyuan Liu\* and Xiaohong Zhang\*



7828

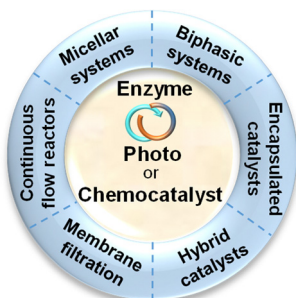
### Sodium layered oxide cathodes: properties, practicality and prospects

Yu-Jie Guo, Ruo-Xi Jin, Min Fan, Wen-Peng Wang, Sen Xin,\* Li-Jun Wan and Yu-Guo Guo\*



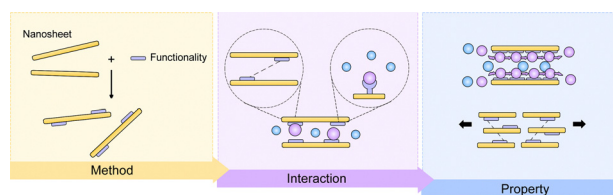
## REVIEW ARTICLES

7875

**One-pot chemo- and photo-enzymatic linear cascade processes**

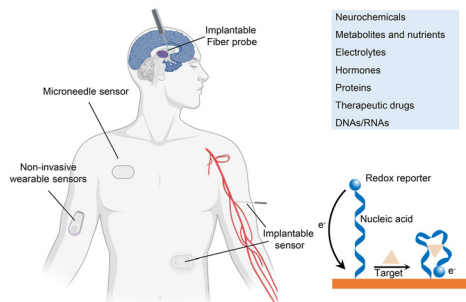
J. M. Carceller, K. S. Arias, M. J. Climent, S. Iborra\* and A. Corma\*

7939

**Functionalized 2D membranes for separations at the 1-nm scale**

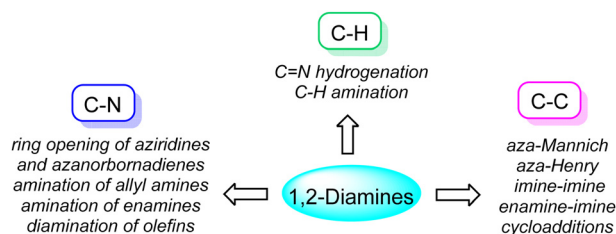
Yuan Kang, Yuqi Wang, Hao Zhang, Zhouyou Wang, Xiwang Zhang\* and Huanting Wang\*

7960

**Nucleic acid-based wearable and implantable electrochemical sensors**

Cui Ye, Heather Lukas, Minqiang Wang, Yerim Lee and Wei Gao\*

7983

**Catalytic asymmetric synthesis of 1,2-diamines**Francisco Foubelo, Carmen Nájera,\*  
M<sup>a</sup> Gracia Retamosa, José M. Sansano and Miguel Yus