

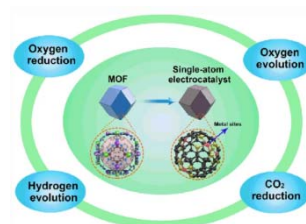
# The high-impact papers in 2020

1. [Metal organic frameworks derived single atom catalysts for electrocatalytic energy conversion](#)

Dingsheng Wang\*

*Nano Research* **2019**, *12*, 2067–2080.

(<https://doi.org/10.1007/s12274-019-2345-4>)

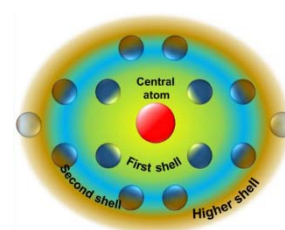


2. [Modulating the local coordination environment of single-atom catalysts for enhanced catalytic performance](#)

Hongpan Rong\* and Dingsheng Wang\*

*Nano Research* **2020**, *13*, 1842–1855.

(<https://doi.org/10.1007/s12274-020-2755-3>)

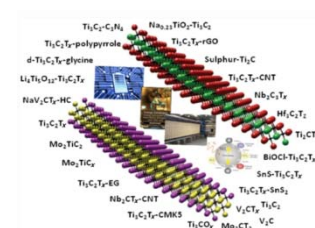


3. [Review of MXenes as new nanomaterials for energy storage/delivery and selected environmental applications](#)

Jonghun Han\* and Yeomin Yoon\*

*Nano Research* **2019**, *12*, 471–487.

(<https://doi.org/10.1007/s12274-018-2225-3>)

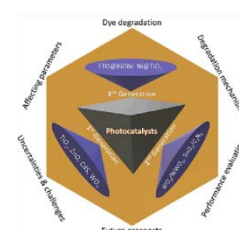


4. [Photocatalysts for degradation of dyes in industrial effluents: Opportunities and challenges](#)

Ki-Hyun Kim\* and Jae-Woo Park\*

*Nano Research* **2019**, *12*, 955–972.

(<https://doi.org/10.1007/s12274-019-2287-0>)

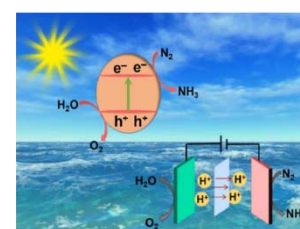


5. [Review on photocatalytic and electrocatalytic artificial nitrogen fixation for ammonia synthesis at mild conditions: Advances, challenges and perspectives](#)

Zhong Jin\*

*Nano Research* **2019**, *12*, 1229–1249.

(<https://doi.org/10.1007/s12274-018-2268-5>)

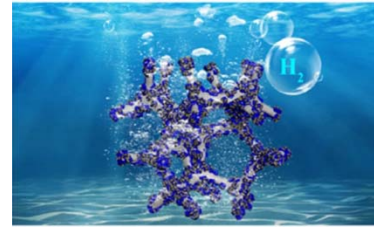


6. [Nickel cobalt phosphide with three-dimensional nanostructure as a highly efficient electrocatalyst for hydrogen evolution reaction in both acidic and alkaline electrolytes](#)

Yantao Chen\* and Zhihao Yuan\*

*Nano Research* **2019**, *12*, 375–380.

(<https://doi.org/10.1007/s12274-018-2226-2>)



7. [Single-atom catalysis enables long-life, high-energy lithium-sulfur batteries](#)

Dingsheng Wang\* and Yadong Li\*

*Nano Research* **2020**, *13*, 1856–1866.

(<https://doi.org/10.1007/s12274-020-2827-4>)

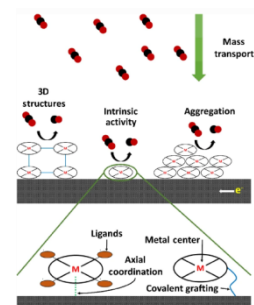


8. [Heterogeneous molecular catalysts for electrocatalytic CO<sub>2</sub> reduction](#)

Karthish Manthiram\*

*Nano Research* **2019**, *12*, 2093–2125.

(<https://doi.org/10.1007/s12274-019-2403-y>)

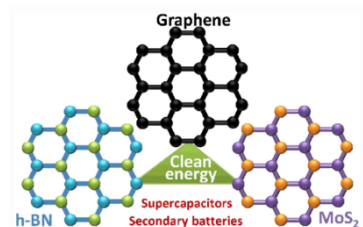


9. [A review on synthesis of graphene, h-BN and MoS<sub>2</sub> for energy storage applications: Recent progress and perspectives](#)

Rajesh Kumar\* and Atsunori Matsuda\*

*Nano Research* **2019**, *12*, 2655–2694.

(<https://doi.org/10.1007/s12274-019-2467-8>)

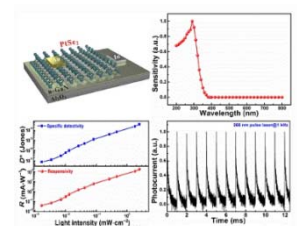


10. [In-situ fabrication of PtSe<sub>2</sub>/GaN heterojunction for self-powered deep ultraviolet photodetector with ultrahigh current on/off ratio and detectivity](#)

Di Wu\*, Xinjian Li\*, and Yuen Hong Tsang\*

*Nano Research* **2019**, *12*, 183–189.

(<https://doi.org/10.1007/s12274-018-2200-z>)

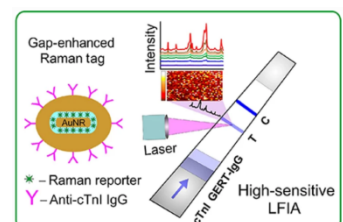


11. [SERS-based lateral flow immunoassay of troponin I by using gap-enhanced Raman tags](#)

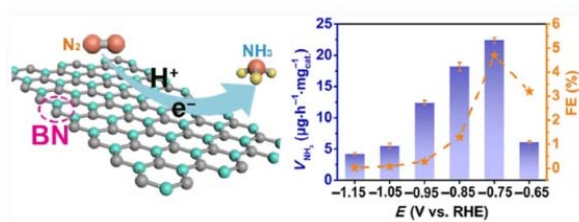
Boris N. Khlebtsov\* and Nikolai G. Khlebtsov\*

*Nano Research* **2019**, *12*, 413–420.

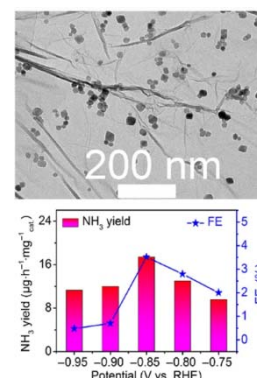
(<https://doi.org/10.1007/s12274-018-2232-4>)



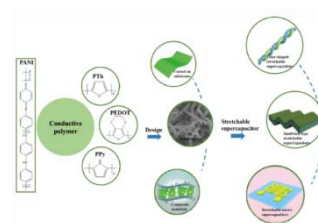
12. [Hexagonal boron nitride nanosheet for effective ambient N<sub>2</sub> fixation to NH<sub>3</sub>](#)  
 Fengli Qu\*, Liang Chen\*, and Xuping Sun\*  
*Nano Research* **2019**, *12*, 919–924.  
 (<https://doi.org/10.1007/s12274-019-2323-x>)



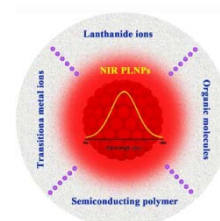
13. [Mn<sub>3</sub>O<sub>4</sub> nanoparticles@reduced graphene oxide composite: An efficient electrocatalyst for artificial N<sub>2</sub> fixation to NH<sub>3</sub> at ambient conditions](#)  
 Xuping Sun\*  
*Nano Research* **2019**, *12*, 1093–1098.  
 (<https://doi.org/10.1007/s12274-019-2352-5>)



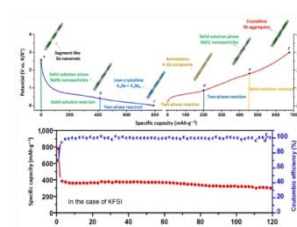
14. [Conductive polymers for stretchable supercapacitors](#)  
 Yaqun Wang\* and Guihua Yu\*  
*Nano Research* **2019**, *12*, 1978–1987.  
 (<https://doi.org/10.1007/s12274-019-2296-9>)



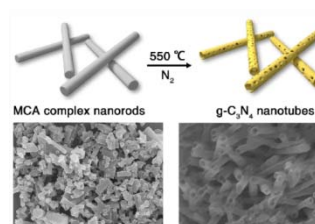
15. [Recent progress in engineering near-infrared persistent luminescence nanoprobe for time-resolved biosensing/bioimaging](#)  
 Quan Yuan\*  
*Nano Research* **2019**, *12*, 1279–1292.  
 (<https://doi.org/10.1007/s12274-019-2343-6>)



16. [Encapsulating segment-like antimony nanorod in hollow carbon tube as long-lifespan, high-rate anodes for rechargeable K-ion batteries](#)  
 Liqiang Mai\*  
*Nano Research* **2019**, *12*, 1025–1031.  
 (<https://doi.org/10.1007/s12274-019-2335-6>)



17. [Supramolecular precursor strategy for the synthesis of holey graphitic carbon nitride nanotubes with enhanced photocatalytic hydrogen evolution performance](#)  
 Tierui Zhang\*  
*Nano Research* **2019**, *12*, 2385–2389.  
 (<https://doi.org/10.1007/s12274-019-2357-0>)

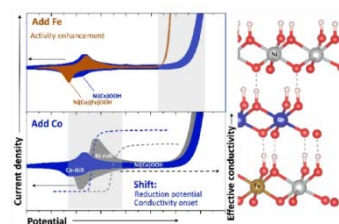


18. [Ternary Ni-Co-Fe oxyhydroxide oxygen evolution catalysts: Intrinsic activity trends, electrical conductivity, and electronic band structure](#)

Maytal Caspary Toroker\* and Shannon W. Boettcher\*

*Nano Research* **2019**, *12*, 2288–2295.

(<https://doi.org/10.1007/s12274-019-2391-y>)



19. [Crystal phase engineering on photocatalytic materials for energy and environmental applications](#)

Song Bai\* and Yujie Xiong\*

*Nano Research* **2019**, *12*, 2031–2054.

(<https://doi.org/10.1007/s12274-018-2267-6>)

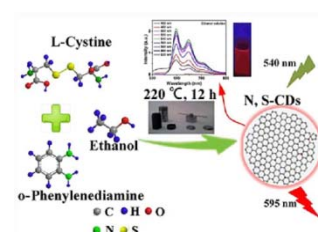


20. [Red/orange dual-emissive carbon dots for pH sensing and cell imaging](#)

Lulu Cai\* and Quan Xu\*

*Nano Research* **2019**, *12*, 815–821.

(<https://doi.org/10.1007/s12274-019-2293-z>)

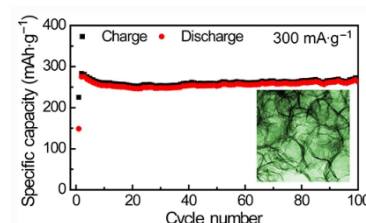


21. [Inverse opal manganese dioxide constructed by few-layered ultrathin nanosheets as high-performance cathodes for aqueous zinc-ion batteries](#)

Srinivasan Madhavi\* and Qingyu Yan\*

*Nano Research* **2019**, *12*, 1347–1353.

(<https://doi.org/10.1007/s12274-019-2303-1>)

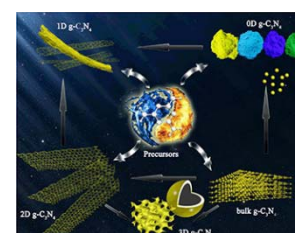


22. [Graphitic carbon nitride with different dimensionalities for energy and environmental applications](#)

Bing-Jie Ni\*

*Nano Research* **2020**, *13*, 18–37.

(<https://doi.org/10.1007/s12274-019-2589-z>)

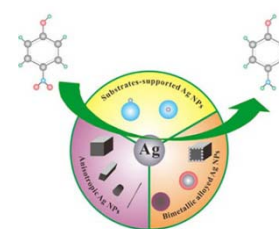


23. [Unlocking the door to highly efficient Ag-based nanoparticles catalysts for NaBH₄-assisted nitrophenol reduction](#)

Zushun Xu\*, Haiyang Gao\*, and Baizeng Fang\*

*Nano Research* **2019**, *12*, 2407–2436.

(<https://doi.org/10.1007/s12274-019-2441-5>)

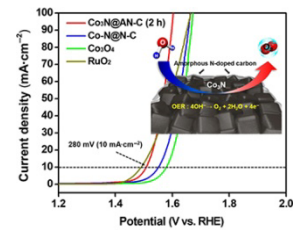


24. [In-situ formation of MOF derived mesoporous Co<sub>3</sub>N/amorphous N-doped carbon nanocubes as an efficient electrocatalytic oxygen evolution reaction](#)

Dae Ho Yoon\*

*Nano Research* **2019**, *12*, 1605–1611.

(<https://doi.org/10.1007/s12274-019-2399-3>)

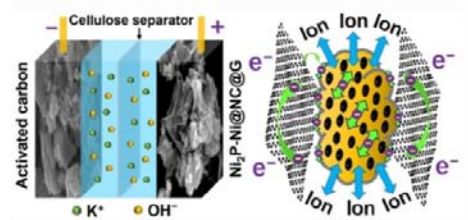


25. [N-doped-carbon coated Ni<sub>2</sub>P-Ni sheets anchored on graphene with superior energy storage behavior](#)

Li Sun\* and Yihe Zhang\*

*Nano Research* **2019**, *12*, 607–618.

(<https://doi.org/10.1007/s12274-018-2265-8>)

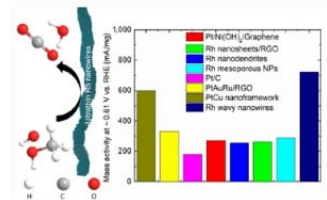


26. [Ultrathin wavy Rh nanowires as highly effective electrocatalysts for methanol oxidation reaction with ultrahigh ECSA](#)

Yu Huang\* and Xiangfeng Duan\*

*Nano Research* **2019**, *12*, 211–215.

(<https://doi.org/10.1007/s12274-018-2204-8>)



27. [Convenient fabrication of BiOBr ultrathin nanosheets with rich oxygen vacancies for photocatalytic selective oxidation of secondary amines](#)

Qing Peng\* and Yadong Li\*

*Nano Research* **2019**, *12*, 1625–1630.

(<https://doi.org/10.1007/s12274-018-2404-x>)



28. [Fe<sub>2</sub>N nanoparticles boosting FeN<sub>x</sub> moieties for highly efficient oxygen reduction reaction in Fe-N-C porous catalyst](#)

Bo Yang\* and Hui Yang\*

*Nano Research* **2019**, *12*, 1651–1657.

(<https://doi.org/10.1007/s12274-019-2415-7>)

