

## Representative Publication of Prof. Hui PAN

1. Mingpeng Chen, Bing Ji, Ziyi Dai, Xinyu Du, Bingchen He, Ge Chen, Dong Liu, Shi Chen, Kin Ho Lo, Shuangpeng Wang\*, Bingpu Zhou\* and **Hui Pan\***, Vertically-aligned 1T/2H-MS<sub>2</sub> (M= Mo, W) nanosheets for surface-enhanced Raman scattering with long-term stability and large-scale uniformity. **Appl. Surf. Sci.** **527**, 146769 (2020).
2. Xinyu Du, Haoqiang Ai, Mingpeng Chen, Dong Liu, Shi Chen, Xuesen Wang, Kin Ho Lo\* and **Hui Pan\***, PLD-fabricated perovskite oxide nanofilm as efficient electrocatalyst with highly enhanced water oxidation performance. **Appl. Catal. B** **272**, 119046 (2020).
3. Dong Liu, Rui Tong, Yuanju Qu, Qing Zhu, Xiongwei Zhong, Mingliang Fang, Kin Ho Lo, Feifei Zhang, Yinchao Ye, Yuxing Tang, Shi Chen\*, Guichuang Xing\* and **Hui Pan\***, Highly Improved Electrocatalytic Activity of NiS<sub>x</sub>: Effects of Cr-doping and Phase Transition. **Appl. Catal. B** **267**, 118721 (2020).
4. Zhiqin Ying, Xi Yang, Rui Tong, Qing Zhu, Tian Chen, Zhubing He\*, and **Hui Pan\***, Enhancing the efficiency and stability of NiO<sub>x</sub> based silicon photoanode via interfacial engineering. **ACS Appl. Energy Mater.** **2**, 6883–6890 (2019).
5. Yangfan Shao, Mengmeng Shao, Yoshiyuki Kawazoe, Xingqiang Shi\*, and **Hui Pan\***, Exploring new two-dimensional monolayers: pentagonal transitional metal borides/carbides (penta-TMB/Cs), **J. Mater. Chem. A** **6**, 10226–10232 (2018).
6. Mengmeng Shao, Yangfan Shao, Jianwei Chai, Yuanju Qu, Mingyang Yang, Zeli Wang, Ming Yang, Weng Fai Ip, Chi Tat Kwok, Xingqiang Shi, Zhouguang Lu, Shijie Wang, Xuesen Wang, and **Hui Pan\***, Synergistic Effect of 2D Ti<sub>2</sub>C and g-C<sub>3</sub>N<sub>4</sub> for efficient photocatalytic hydrogen production. **J. Mater. Chem. A**, **5**, 16748–16756 (2017).
7. Yangfan Shao, Xingqiang Shi\*, and **Hui Pan\***, Electronic, Magnetic, and Catalytic Properties of Thermodynamically Stable Two-Dimensional Transition-Metal Phosphides. **Chem. Mater.** **29**, 8892–8900 (2017).
8. Yuanju Qu, Mingyang Yang, Jianwei Chai, Zhe Tang, Chi Tat Kwok, Ming Yang, Zhenyu Wang, Daniel Chua, Shijie Wang, Zhouguang Lu and Hui Pan\*, Facile Synthesis of Vanadium-Doped Ni<sub>3</sub>S<sub>2</sub> Nanowire Arrays as Active Electrocatalyst for Hydrogen Evolution Reaction. **ACS Appl. Mater. Interfaces** **9**, 5959–5967 (2017).
9. **Hui Pan\***, Ultra high electrochemical catalytic activity of MXenes. **Scientific Reports** **6**, 32531 (2016).
10. **Hui Pan\***, Principles on design and fabrication of nanomaterials as photocatalyst for water-splitting. **Renew. Sust. Energy Rev.** **57**, 584–601 (2016).
11. **Hui Pan\***, Metal dichalcogenides monolayers: Novel catalysts for electrochemical hydrogen production, **Scientific Reports** **4**, 5348 (2014).
12. **Hui Pan**, and Yuan Ping Feng\*, Semiconductor Nanowires and Nanotubes: Effects of Size and Surface-to-Volume Ratio, **ACS Nano** **2**, 2410-2414 (2008).
13. **Hui Pan**, Jiabao Yi, Lei Shen, Rongqin Wu, Junhua Yang, Jianyi Lin, Yuan Ping Feng\*, Jun Ding\*, L. H. Van, J. H. Yin, Room Temperature Dilute Magnetic Semiconductor in Carbon-Doped ZnO, **Phys. Rev. Lett.** **99**, 127201 (2007) (highlighted by physicsworld.com (3 Oct. 2007)).