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Academic Qualification:

Ph.D. in Chemistry, Tsinghua University, 2019

M.Sc. in Chemistry, Tsinghua University, 2016

B.Sc. in Chemistry, Tsinghua University, 2013

Teaching Area

Inorganic chemistry, Materials chemistry, Electron microscopy

Research Area

Nanomaterials—synthesis and characterization, Single atom catalysis, Electrochemistry, Small molecule activation,

Green chemistry, First-principle calculation

Working Experience

Assistant Professor, Macao University of Science and Technology, Macao SAR, 2022–Present

Lecturer (Macao Fellow), University of Macau, Macao SAR, 2019–2022

Selected Journal Papers

Gao HX[†], Wang S[†], **Cheong WCM**^{†,*}, Wang KX, Xu HF, Huang AJ, Ma JG, Li JZ, Ip WFA, Hui KS*, Dinh DA, Fan X, Bin F, Chen FM, Hui KN*. Topological defect and sp³/sp² carbon interface derived from ZIF-8 with linker vacancies for oxygen reduction reaction. *Carbon*, in press, DOI: 10.1016/j.carbon.2022.10.030.

Mateen M*, Akhtar MN, Gao L, **Cheong WCM***, Lv SS, Zhou Y, Chen Z*. Engineering electrophilic atomic Ir sites on CeO₂ colloidal spheres for selectivity control in hydrogenation of α,β -unsaturated carbonyl compounds. *Nano Research*, **2022**, *15*, 7107–7115.

Wu KL, Sun KA, Liu SJ, **Cheong WC**, Chen Z, Zhang C, Pan Y, Cheng YS, Zhuang ZW, Wei XW, Wang Y, Zheng LR, Zhang QH, Wang DS, Peng Q, Chen C, Li YD. Atomically dispersed Ni–Ru–P interface sites for high-efficiency pH-universal electrocatalysis of hydrogen evolution. *Nano Energy* **2021**, *80*, 105467.

Jiang BB[†], **Cheong WC**[†], Tu RY, Sun KA, Liu SJ, Wu KL, Shang HS, Huang AJ, Wang M, Zheng LR, Wei XW, Chen C. Regulating the electronic structure of NiFe layered double hydroxide/reduced graphene oxide by Mn incorporation for high-efficiency oxygen evolution reaction. *Science China–Materials*, **2021**, *64*, 2729–2738.

Zhao D, Sun KA, **Cheong WC**, Zheng LR, Zhang C, Liu SJ, Cao X, Wu KL, Pan Y, Zhuang ZW, Hu BT, Wang DS, Peng Q, Chen C, Li YD. Synergistically Interactive Pyridinic-N–MoP Sites: Identified Active Centers for Enhanced Hydrogen Evolution in Alkaline Solution. *Angewandte Chemie International Edition*, **2020**, *59*, 8982–8990.

Dai RY, **Cheong WC**, Jiao JQ, Zhang C, Zhang Y, Chen Z, Nan CY, Chen C. Optimized Self-Templating Synthesis Method for Highly Crystalline Hollow Cu₂O Nanoboxes. *Small Methods*, **2020**, *4*, 2000521.

Jiao JQ[†], Lin R[†], Liu SJ[†], **Cheong WC**[†], Zhang C, Chen Z, Pan Y, Tang JG, Wu KL, Hung SF, Chen HM, Zheng LR, Lu Q, Yang X, Xu BJ, Xiao H, Li J, Wang DS, Peng Q, Chen C, Li YD. Copper atom-pair catalyst anchored on alloy nanowires for selective and efficient electrochemical reduction of CO₂. *Nature Chemistry*, **2019**, *11*, 222–228.

Cheong WC[#], Yang WJ[#], Zhang J[#], Li Y, Zhao D, Liu SJ, Wu KL, Liu QG, Zhang C, Wang DS, Peng Q, Chen C, Li YD. Isolated Iron Single-Atomic Site-Catalyzed Chemoselective Transfer Hydrogenation of Nitroarenes to Arylamines. *ACS Applied Materials & Interfaces*, **2019**, *11*, 33819–33824.

Wei SJ, Li A, Liu JC, Li Z, Chen WX, Gong Y, Zhang QH, **Cheong WC**, Wang Y, Zheng LR, Xiao H, Chen C, Wang DS, Peng Q, Gu L, Han XD, Li J, Li YD. Direct observation of noble metal nanoparticles transforming to thermally stable single atoms. *Nature Nanotechnology*, **2018**, *13*, 856–861.

Cao X, Chen Z, Lin R, **Cheong WC**, Liu SJ, Zhang J, Peng Q, Chen C, Han T, Tong XJ, Wang Y, Shen RA, Zhu W, Wang DS, Li YD. A photochromic composite with enhanced carrier separation for the photocatalytic activation of benzylic C–H bonds in toluene. *Nature Catalysis*, **2018**, *1*, 704–710.

Pan Y, Sun KA, Liu SJ, Cao X, Wu KL, **Cheong WC**, Chen Z, Wang Y, Li Y, Liu YQ, Wang DS, Peng Q, Chen C, Li YD. Core–Shell ZIF-8@ZIF-67-Derived CoP Nanoparticle-Embedded N-Doped Carbon Nanotube Hollow Polyhedron for Efficient Overall Water Splitting. *Journal of the American Chemical Society*, **2018**, *140*, 2610–2618.

Cheong WC, Liu CH, Jiang ML, Duan HH, Wang DS, Chen C, Li YD. Free-standing palladium-nickel alloy wavy nanosheets. *Nano Research*, **2016**, *9*, 2244–2250.

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Selected Conference Papers

Professional Society Membership