
Dr Hongmei Chen

Address: Laboratoire de Chimie des Processus Biologiques,
Collège de France, 11 place Marcelin Berthelot, 75 005 Paris, France
Phone Number: +33 749529411

E-mail: hongmei.chen@college-de-france.fr



Research Interests

- ◆ Porous materials (COFs, CTFs, CMPs, and MOFs)
- ◆ Organic/inorganic heterostructures
- ◆ Thermocatalysis (CO_2 hydrogenation)
- ◆ Photocatalysis (overall water splitting, hydrogen evolution, oxygen evolution)
- ◆ Surface chemistry, gas adsorption and separation

Publications

- [1]. W. Zhao, P. Yao, H. Yang, M. Bahri, A. James, **H. Chen**, L. Liu, B. Li, Z. Pang, R. Clowes, N. Browning, J. Ward, Y. Wu, A.I. Cooper. Using sound to synthesize covalent organic frameworks in water. **Nat Synth** 2022; 1: 87-95.
- [2]. **H. Chen**, X. Xu. Ruddlesden-Popper compounds in the double-perovskite family $\text{Sr}_2\text{FeTaO}_6(\text{SrO})_n$ ($n = 0, 1$ and 2) and their photocatalytic properties. **Appl Catal B** 2017, 206:35-43.
- [3]. **H. Chen**, X. Sun, X. Xu. Ruddlesden-Popper compounds $(\text{SrO})(\text{LaFeO}_3)_n$ ($n = 1$ and 2) as p-type semiconductors for photocatalytic hydrogen production. **Electrochim Acta** 2017; 252:138-46.
- [4]. F. Wu, M. Lv, X. Sun, Y. Xie, **H. Chen**, S. Ni, G. Liu, X. Xu. Efficient photocatalytic oxygen production over nitrogen-doped $\text{Sr}_4\text{Nb}_2\text{O}_9$ under visible-light irradiation. **ChemCatChem** 2016; 8(3): 615-23.
- [5]. **H. Chen**, Y. Xie, X. Sun, M. Lv, F. Wu, L. Zhang, L. Li, X. Xu. Efficient charge separation based on type-II g-C₃N₄/TiO₂-B nanowire/tube heterostructure photocatalysts. **Dalton Trans** 2015; 44(29):13030-9.
- [6]. X. Sun, Y. Xie, F. Wu, **H. Chen**, S. Ni, G. Liu, X. Xu. Photocatalytic hydrogen production over chromium doped layered perovskite Sr_2TiO_4 . **Inorg Chem** 2015; 54(15):7445-53.
- [7]. M. Lv, Y. Xie, Y. Wang, X. Sun, F. Wu, **H. Chen**, S. Wang, C. Shen, Z. Chen, S. Ni, G. Liu, X. Xu. Bismuth and chromium co-doped strontium titanates and their photocatalytic properties under visible light irradiation. **Phys Chem Chem Phys** 2015; 17(39):26320-9.