A good resume example for Post-Doc

SHANGHAI JIAO TONG UNIVERSITY

Tiantian Duan

Mobile: (+86) 13111124361

Email: duantiantian@sjtu.edu.cn

Skype: sweetviver

Address: Shanghai Jiao Tong University No. 800 Dongchuan Road (200240)

Education

2015-present PhD candidate (Advisor: Prof. Che), Chemistry, Shanghai Jiao Tong University
2012-2015 Master (Advisor: Prof. Yan), Inorganic Chemistry, Tongji University
2008-2012 Bachelor, Chemistry, Tongji University

Research Experience

Discovery of chiral dislocation structure and spontaneous chiral self-assembly of helical CdSe/CdS nanorods
The antipodal helical CdSe/CdS nanorods were generated by chiral dislocation, and their highly ordered chiral assembly showed concentrically banded distribution with stochastic chirality between batches.

Synthesis and assembly of chiral CdSe/CdS nanorods with cholic acid for circularly polarized luminescence
The right-handed helical CdSe/CdS nanorods were formed with cholic acid, and their chiral nematic-like film exhibited circularly polarized luminescence property.

Assembly of chiral CdSe/CdS nanorods via spin coating for circularly polarized electroluminescence
The right-handed helical assembly of chiral CdSe/CdS nanorods were formed *via* spin coating, which could be served as emitting layer in QLED for circularly polarized electroluminescence.

Microporous (zeolite or MOF)-based rare earth hybrid materials for luminescence and sensing
Zeolite Y, MOF-76(Y) and Zn(2,5-pyridinedicarboxylate)-based rare earth hybrid materials were synthesized *via* hydrothermal method for luminescence and sensing application.

Skills

Operating SEM, TEM, STEM, EDS, XRD, UV-Vis, FTIR, PL, CD, CPL; Analyzing data *via* Smile View, Digital Micrograph, Jade; Modelling *via* CrystalMaker, Material Studio, Vesta; Plotting and drafting *via* Origin, C4D, PS.

Publications

1. T. Duan, J. Ai, X. Cui, X. Feng, Y. Duan*, L. Han*, J. Jiang* and S. Che*, Spontaneous chiral self-assembly of CdSe@CdS nanorods, *Chem*, 2021. https://doi.org/10.1016/j.chempr.2021.06.009
2. T. Duan, J. Ai, Y. Duan*, L. Han*, and S. Che*, Self-assembly of chiral nematic-like films with chiral nanorods directed by chiral molecules, *Chemistry of Materials*, 2021, in press.
3. T. Duan, B. Yan*. Lanthanide ions (Eu^{3+}, Tb^{3+}, Sm^{3+}, Dy^{3+}) activated ZnO embedded zinc 2, 5-pyridinedicarboxylic metal-organic frameworks for luminescence application, *Journal of Materials Chemistry C*, 2015, 3(12): 2823-2830.
4. T. Duan, B. Yan*, H. Weng. Europium activated yttrium hybrid microporous system for luminescent sensing toxic anion of Cr (VI) species, *Microporous and Mesoporous Materials*, 2015, 217: 196-202.
5. T. Duan, B. Yan*. Hybrids based on lanthanide ions activated yttrium metal–organic frameworks: functional assembly, polymer film preparation and luminescence tuning, *Journal of Materials Chemistry C*, 2014, 2(26): 5098-5104.
6. T. Duan, B. Yan*. Novel luminescent hybrids prepared by incorporating a rare earth ternary complex into CdS QD loaded zeolite Y crystals through coordination reaction, *CrystEngComm*, 2014, 16(16): 3395-3402.
7. T. Duan, B. Yan*. Photophysical Properties of Metal Ion Functionalized NaY Zeolite, *Photochemistry and photobiology*, 2014, 90(3): 503-510.

Other Experience

2017.09-2019.09 RA for operating TEM for School of Chemistry in SJTU
2016.12-2017.09 Conference Secretary of International Conference on Nanospace Materials 2017 (chaired by Prof. Shunai Che)
2016.03-2016.07 TA of my advisor on Frontiers of Chemistry for Zhiyuan College in SJTU

Honor

2015 Excellent Graduates in Shanghai, China; 2014 Chinese National Scholarship for Graduates Students; 2013 Dow Chemical Scholarship.

Dear Prof. YOU,

I’m writing to inquire the possibility of becoming a postdoctorate in your laboratory. I’m about to obtain my PhD in Chemistry (Advisor: Prof. SHE) in September from School of Chemical Engineering, Shanghai Jiao Tong University, China. After a detailed survey of your fundamental research on *nanocrystal growth and assembly*, I believe that there would be a good fit between my research experiences / interests and your current academic projects.

The highlight of my PhD work is *discovery of chiral dislocation structure and spontaneous chiral self-assembly of helical CdSe/CdS nanorods.* Although the spontaneous formation of chiral inorganics with chiral space groups has been extensively investigated, enantiomeric excess has rarely been considered. My research reveals that in chiral molecule free environment the helical CdSe/CdS nanorods with opposite handedness were generated due to chiral dislocation structure, and their highly ordered chiral assembly showed concentrically banded distribution with stochastic chiral optical activity between batches. The stability of chiral dislocation structures was supported by a theoretical analysis of their binding energies, and the mechanism for spontaneously chiral assembly was speculated to be originated from the enantiomeric excess of seed-assembly. This finding was published on *Chem* this year (https://doi.org/10.1016/j.chempr.2021.06.009).

During the course of my PhD work, I become very interested in *synthesis, assembly and application of semiconductor nanocrystals* – your work used to provide me a lot of inspirations, such as your remarkable work on *dislocation mechanism of nanocrystal growth, superlattices assembly and in-depth study of band structure of nanocrystals.* Thus, I am quite passionate to go on this work in your group, should you provide me a chance to do so.

The enclosed resume describes more details of my qualifications. I am looking forward to hearing positive news from you.

Sincerely yours,
ME

PhD Candidate in Chemistry
School of Chemical Engineering, Shanghai Jiao Tong University, Shanghai, China
Tel: (+86) 123-4567-8900
Email: me@sjtu.edu.cn