

Junjie Huang

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SUMMARY

- Curious mind, logic and critical thinking, creative solution finding, and collaborative spirit
- In-depth knowledge of inorganic chemistry, physical chemistry, and coordination chemistry
- Experienced in single crystals' growth, ligands' synthesis, analytics with IR, NMR, UV-Vis and Glovebox

EDUCATION

Lanzhou University, Cuiying Honors College, Lanzhou, Gansu, China

Bachelor of science, Chemistry (GPA:4.61/5.00 rank:12/241)

Expected 2018

Award: Third Prize Scholarship of Lanzhou University

2014-2016

NanYang Technological University, Singapore

Short-term student exchange program

Feb-Mar 2016

Standardized Tests

TOEFL iBT (Total: 104; Reading: 29; Listening: 27; Speaking: 23; Writing: 25)

GRE General Test (Total: 324; Verbal: 155; Quant: 169; Analytic Writing: 3.0)

GRE Chemistry Test (Score: 840; percentage: 88)

RESEARCH AND INTERNSHIP EXPERIENCE

Lanzhou University, College of Chemistry and Chemical Engineering

Aug 2015-May 2018

Research Assistant of Prof. Weisheng Liu

Project 1: Schiff base ligand with lanthanide metal center as a way of fixation to CO₂ molecule

- Conducted literature reviews of studies on the interaction between CO₂ and Schiff base metal complex
- Synthesized long-chain Schiff base lanthanide complexes to facilitate the process of CO₂ fixation
- Probed different CO₂ fixation efficiency influencing factors (such as the ligand structure and metal type) to improve the coordination system
- Summarized project results, visualized major findings, and drafted scientific reports and manuscripts

Project 2: Catalytic property of Schiff base-lanthanide complex ring cleavage reaction of epoxide with CO₂

- Synthesized Schiff base lanthanide complex to catalyze the organic reaction between CO₂ and epoxide
- Probed the metallic factors of catalytic behavior (single type lanthanide metal center and lanthanide-transition metal heteronucleus center)

Graduation Thesis: Synthesis of Eu(II)/Eu(III) crown ether complexes

Jan 2018-May 2018

- Synthesized a series of dibenzo crown ether functionalized with unsaturated acid or imine
- Synthesized corresponding Eu(II) complexes in the glovebox and attempted to prepare these single crystals by gel diffusion

Lanzhou University, Cuiying Honors College

June 2016-Dec 2017

Organizer of Cuiying Student Innovation Fund

Project: Schiff base-lanthanide complexes' structure and property based on the Schiff base ligand structure

- Conducted literature reviews for the grant proposal, designed and drafted the proposal
- Synthesized a series of Schiff base ligands with different structure characters (flexible or rigid carbon chains and different functional groups with different coordination atoms)
- Tested NIR and visible light emission property and CO₂ fixation catalytic property
- Organized weekly research group meetings and managed project data to discussing how different experimental factors influence the product structure

Lanzhou University and the Chinese University of Hong Kong

Aug 2016

Volunteer coordinator for students and teachers visit exchange program

SKILLS

Scientific Applications Origin, Chemdraw, EndNote, Diamond, Gaussian 09, Gaussian View

Office Applications Microsoft Word, PowerPoint, Excel