

Career Objective

To perform outstanding work as an Analytical Chemist/ Researcher/Technician in chemistry

Education

December
2013

Master of Science in Chemistry

Eastern New Mexico University (Department of Physical Science)

Major: Chemistry/Analytical Chemistry

July 2010

Bachelor of Science in Chemistry

Ludong University (Department of Chemistry)

Major: Chemistry

Professional Experience

Performed physical and chemical tests of finished products using standard operation procedure (SOP).

Communicated discrepancies directly to service engineer to facilitate timely corrections.

Executed analytical tests with appropriate methods and recorded comprehensive procedures, results, and analysis.

Completed routine laboratory maintenance and daily miscellaneous operations.

Developed new methods and optimized current methods performed.

Experienced and skilled at performing Cyclic Voltammetry (CV), High Performance Liquid Chromatography (HPLC), Ion Chromatography (IC), Gas Chromatography-Mass Spectrometry (GC-MS), Nuclear Magnetic Resonance (NMR), Fourier Transform Infrared Spectroscopy (FTIR), UV/VIS Spectrometer, PH meter, OptiMelt.

Research Experience

- **Analysis of Carbonate and Acetate in the Alkaline Electrolyte of Ethanol Electrooxidation by Ion Chromatography. (Thesis—Eastern New Mexico University)**

The research contributes to current knowledge regarding catalysts of direct ethanol fuel cells based on the studies of the products of the ethanol oxidation reaction. We were determined to identify the best catalyst for direct ethanol fuel cells in alkaline media. I conducted multiple searches on identified topics

relevant to the project, designed the experiment, and created the best method to separate and detect the oxidation reaction products. I prepared specimens and samples, constructed, maintained and operated Cyclic Voltammetry and Ion chromatography devices; ensured the laboratory was well-stocked and resourced; performed mathematical calculations on the computer for the graphs; recorded and analyzed the results. Moreover, I calibrated, trouble-shot, and repaired the ion chromatography as well as ensured that strict safety procedures and checks were in place.

► **Preparation and Properties Studies of $\text{SO}_4^{2-}/\text{CeO}_2\text{-ZrO}_2$ Super-acid Catalysts for esterification reaction. (Thesis—Ludong University)**

The aim of this project was to prepare and characterize the super-acid catalysts for esterification reaction in place of traditionally used concentrated sulfuric acid. The ceria-zirconia solid solution was successfully prepared by co-precipitation, and the solid superacid was obtained by the treatment with sulfur acid. The solid superacid was used as a catalyst for the esterification of butyl acetate synthesis. The influences of reaction time, catalyst quantity and the ratio between 1-butanol and acetic acid on the reaction were discussed.

Work Experience

Aug. 2011-
Dec. 2011

Graduate Assistant in Chemistry—Eastern New Mexico University

- Assisted professors in an undergraduate level instrumental analysis course, including laboratory.
- Graded student assignments and tests.
- Assisted students with using lab equipment and performing experiments.

Jan. 2012-
Dec. 2012;
Aug. 2013-
Dec. 2013

Instructor for Department of Chemistry—Eastern New Mexico University

- Prepared all the equipment and chemicals needed in each section and maintained chemical inventory in laboratory.
- Instructed students on how to properly handle the laboratory equipment.
- Designed and gave lectures, examined assignments, and graded lab reports
- Constructed quizzes, midterm exams, and final exams.
- Tutored students after class during office hours.
- Proctored “make-up” sessions for students who were absent from labs.

Jan. 2011-
Jun. 2011

Sales Representative of Taikang life Insurance company

- Assisted customers in choosing life insurance and health insurance.
- Gave away short term accident insurance.

Aug. 2008

Volunteer for Bring Me Hope Foundation summer camp

- Interpreted between Chinese children and American volunteers.
- Encouraged, inspired, and delivered love to the children

Computer Skills

Adept at using Chemdraw, Origin, Chromeleon, ChromQuest, Zsimpwin, Powersuite, Omnic, Peak simple, Microsoft Office and Internet Explorer.

Language

Fluent in English and Chinese.

Awards and Honors

Recipient of the following honors:

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| 2007-2008 | • Three Merits Student |
| 2007-2009 | • Outstanding Youth League |
| 2010 | • Outstanding University Graduates |

Recipient of the following awards:

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| 2011 | • Certificate of Merit |
| 2007 | • ENMU Student Research Conference |
| 2007-2008 | • National Scholarship for Encouragement |
| 2007 | • Ludong University Scholarship |
| 2009 | • Third Prize in Ludong University English Debate Competition |
| | • First Prize in Ludong University Table-Tennis Group Competition |

Reference: Provided upon requests.