Wenli Wu

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Highlights of Qualifications:

- Hands-on experiences in troubleshooting and time management, as well as process simulation, development of heat and material balance calculations and preparation of process flow diagrams.
- Background in the design and specification of equipment such as pipe sizing, reactors, heat and cooling technology using Aspen Plus software for chemical and biofuel productions.
- Knowledge and experience in Software such as Aspen Plus, Matlab, Python, Image J, OriginPro, Microsoft office suite, PrimeRX software, and Characterization techniques such as TEM, SEM, Spray Dryer, Spectrophotometer, Dynamic Light Scattering, Particle Size Distribution Analysis, Ultrasonic Cleaner, Centrifuge, Microscope.
- Knowledge in Nuclear power plant design and theoretical calculations such as heat transfer, fluid dynamic simulations.

INTERNSHIPS & EXPERIENCES

National Science Foundation REU Intern, University of Chicago, Chicago, IL **Jun 2013 - Aug 2013**

- Worked on projects of Synthesis of the Bipyramidal Gold Nanoparticles (AuBPs) via seed-mediated approach in aqueous solution of hexadecyltrimethylammonium bromide (CTAB) and Coated silver on the bipyramidal gold nanoparticles by chemically reducing silver ions
- Contributions: Achieved the synthesis of different sizes and shapes of AuBPs and successfully controlled the thickness of the silver layer based on theoretical backgrounds, UV-Vis absorption spectroscopy and TEM characteristics. Optimized the optical properties of these nano-particiles to contribute in material usages for sensors and detectors.
- Presented the results at the University of Chicago, IL.

Undergraduate Research Assistant, The City College of New York, NY **Jun 2012 - Dec 2013**

- Synthesized Silver-Nylon novel composite particle for large-scale production via spray drying to be integrated into a Nano particle based water filtration system, which displays bactericide properties.
- Optimized the production of Silver-Nylon composite particle by optimizing solvents, operating conditions and ratios between Silver and Nylon 6 in reaction.

Senior Design Project, The City College of New York, NY **Jan 2014 - May 2014**

- Worked on project of the design of ethylene synthesis from lignocellulosic biomass (i.e. Corn Stover) via Saccharification, fermentation, and dehydration using Aspen plus.
- Contributions: successfully designed a system of plants to produce certain amount of ethylene and with theoretical calculations, achieved both environmentally and economically favorable results.

EDUCATION

B.E., Chemical Engineering, The City College of New York, May 2014 **GPA: 3.94**

Minor: Mathematics

AWARDS

Lead student of the Grove School of Engineering for the City College of New York, Class of 2014

Society of Asian Scientists and Engineers Scholarships for Academic Excellence, New York State, 2010-2014

A.X. Schmidt Scholarships, Department of Chemical Engineering, CCNY, 2012-2013

Valedictorian Candidate for the City College of New York, Class of 2014

Mitsubishi Nuclear Scholarship Award, 2014

Dean's list, 2011-2014

AFFILIATIONS

Member of Omega Chi Epsilon honor Society, 2012-2014

Member of American Institute of Chemical Engineers, The City College of New York, 2013

Member of Society of Women Engineers, 2013

Member of Society of Asian Scientists and Engineers, 2013