QUANG T. NGUYEN

CHEMICAL ENGINEER

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PROFESSIONAL PROFILE

Customer-focused, detail-oriented, and enthusiastic Process Engineer with a strong educational background in chemical engineering, supported by hands-on experiences in R&D and production within chemical industry

COMPUTER SKILLS

- Ruby, JavaScript, Python, HTML/CSS
- Node.js, Express.js, jQuery, AJAX, React
- MongoDB, PostgreSQL, git/GitHub
- Aspen plus, Polymath, Minitab, Word
- COMSOL simulations, Visual Studio

TECHNICAL SKILLS

- Materials characterization
- Mechanical millings
- XRF, XRD, SEM, TGA, DSC, Instron
- Technical writing
- Metal coatings (CVD)

CERTIFICATION

- Six Sigma Green Belt

EDUCATION

2016 - 2017
MS, CHEMICAL ENGINEERING
NEW JERSEY INSTITUTE OF TECHNOLOGY (NJIT)
GPA: 3.90

2011 - 2015
BS, CHEMICAL ENGINEERING
NEW JERSEY INSTITUTE OF TECHNOLOGY (NJIT)
GPA: 3.91
Summa Cum Laude

PUBLICATIONS

Kerri-Lee Chintersingh, **Quang Nguyen**, Mirko Schoenitz, Edward L. Dreizin. Combustion of boron particles in products of an air–acetylene flame. *Combustion and Flame, 172, pp194- 205(2016)*

AWARDS

- Exxon Mobil Merit Award
- NSF Undergraduate Nanotechnology Research Award (UNSRP)
- URI Student Seed Grant Award

PROFESSIONAL EXPERIENCE

RESEARCH ASSISTANT
YORK CENTER FOR ENVIROMENTAL ENGINEERING AND SCIENCE, NJIT. | 09/2016 – 08/2017
NEWARK, NJ

Project: Nanocomposite thermite powders (Al. Fe2O3) with improved flowability prepared by mechanical milling (Funded by Lawrence Livermore National Laboratory (LLNL))

- Successfully improved flowability and combustion performance of formulated materials
- Mechanically formulated Aluminum-rich nanocomposite thermites prepared by Planetary milling
- Performed materials characterization using SEM, DSC, TGA, Particle Size Analyzer
- Evaluated ignition and combustion behavior of prepared materials using control volume explosion device (CVE) and electrostatic discharge (ESD)

R&D AND PROCESS ENGINEER
ADVANCED POWDER SOLUTIONS, INC. | 02/2016 – 08/2016
HOUSTON, TX

- Assisted senior engineers to improve the efficiency of the production of lubricant components used in advanced military jets
- Operated chemical vapor deposition (CVD) fluidized bed reactor for metal powder coatings
- Improved ROD (rate of dissolve) of fracking balls used in gas hydro-fracking process
- Developed 70+ ksi modified Aluminum alloys in replacement of Al 7050 using Additive Manufacturing (AM) for defense applications (Funded by US Navy)
- Developed Ti-based fracking balls with high strength, high temperature, and dissolvability properties
- Developed light weight invar materials with low CTE (thermal expansion coefficient)

UNDERGRADUATE RESEARCH STUDENT
YORK CENTER FOR ENVIROMENTAL ENGINEERING AND SCIENCE, NJIT. | 09/2014 – 08/2015
NEWARK, NJ

- Successfully enhanced the reactivity of Boron-based energetic metal powders using reactive additives (MgH2)
- Mechanically prepared energetic materials using different milling techniques
- Performed particle size characterization and particle morphology analysis on prepared materials
- Performed thermal analysis on prepared composites using thermal gravimetric analysis (TGA)
- Characterized combustion time of as a function of particle sizes under acetylene flame study and combustion

TECHNICAL ASSISTANT (INTERN)
FICO CEMENT CORPORATION. | 06/2012 – 08/2012
BINH DUONG, VIETNAM

- Assisted in maintenance of cement mixing machines to ensure operations under safe conditions
- Helped with ordering and purchasing supplies
- Organized stockroom
- Conducted hardness testing of cement samples