

Weizhuo Zhao (Eddie)

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EDUCATION

Purdue University Calumet, Hammond, IN

08/2008-12/2010

Master of Science in Engineering

GPA: 3.67/4.0

- Awarded achievement scholarship during graduate study
- Chosen as University's President of Chinese Student Association
- Awarded "Outstanding Student Organization Leader of the Year" among 73 active organizations
- Successfully completed courses include:
 - Introduction to CFD
 - Heat Exchanger Design
 - Material Selection in Design
 - Advanced Engineering Economic
 - Combustion
 - Numerical Heat & Mass Transfer
 - Solid Waste Management

Central South University, Changsha, China

09/2004-07/2008

Bachelor of Engineering in Powder Material Science

GPA: 3.88/4.0

- Ranked 5 out of 89 students in Powder Material Science and Engineering major
- Awarded four scholarships as part of the top 10% of students for exceptional grade point average, four "Outstanding Students", and two "Outstanding Student Leaders"
- Chosen as the Institute's Vice President of the Students Association

RESEARCH EXPERIENCE:

Research Assistant, Materials Characterization Lab, Purdue University Calumet

08/2008-present

- Be responsible for the Ternary Phase Diagram research project sponsored by AIST and AISI foundations, which constructs 4 slag ternary phase diagrams and converts them into 3D models, and visualizes them using Virtual Reality juggler library
- Construct and develop liquidus projection and 3D liquidus surface of 4 "real" slag ternary phase diagrams, apply them to analyze the composition path during the iron and steelmaking process

Engineering Internship, Zhuzhou Cemented Carbide Cutting Tools Co., Ltd, China

Summer 2007

- Conducted studies in kentanum manufacture processing including design and manufacturing of different cutting tools and bore machining tools
- Designed a hammer using AutoCAD and manufactured it under the instruction of experienced engineers
- Documented and gave presentations to academic advisor and students

ENGINEERING PROJECTS:

- Analyzed energy distribution of Powers Building in Purdue University Calumet using MathCAD, proposed several recommendations to reduce 20% of the energy cost of Powers Building
- Constructed CFD models for BP cooling towers, modeling the basin and pump suction piping based on operating conditions and boundary conditions set up by BP, providing assurance that the current design will not result in surface vortex formation in the cooling pump suction bay
- Engaged in municipal solid waste characterization study for Indiana, did site sampling up to 100 samples, performed data calculation, statistical modeling, results comparison across various states, and determined types and quantities of recyclables in the waste stream

PUBLICATION

H. Abramowitz, J. Ye, D. Xu, E. Johnsen, T. Hagen, W. Zhao, M. Rollor, "Construction of a Web-Based Tutorial for 3-D Visualization of Ternary Phase Diagrams", Iron & Steel Technology, October, 2009

SOFTWARE PROFICIENCY

FactSage, Origin, Gambit, Fluent, ANSYS, MathCAD, AutoCAD, 3ds Max, SolidWorks, MS office, C++

AFFILIATIONS

- Member, Association of Iron & Steel Technology (AIST), 2007-2010
- President, Material Advantage Student Chapter in Purdue University Calumet, 2/2009-12/2010
- President, Chinese Students Association in Purdue University Calumet, 4/2009- 04/2010