

WEI XIE

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EDUCATION

Dept. of Chemical Engineering, Tsinghua University, Beijing, China

- M.S. Candidate in Materials Science and Engineering 9/2003-present
Cumulative GPA: 80.6/100
 - Advisor: Prof. Liu, Deshan; Co-advisor: Kan, Chengyou
 - Thesis Title: Stable Silylated Polyurethane Emulsions for Water-borne Adhesives
- B.E. in Polymer Materials and Engineering 9/1999-7/2003
Total GPA: 80.8/100, Upper division GPA: 83.3/100
 - Research Advisor: Prof. Liu, Deshan
 - Senior Project: Composite Polyurethane-Acrylate Emulsions for Coatings

RESEARCH EXPERIENCE

- **Research Assistant, Tsinghua University** 10/2004-present
 - Synthesized novel silylated polyurethane via batch polymerization and prepared stable emulsions for adhesive by means of phase inversion.
 - Designed and certified complex emulsifier system in emulsion to protect silyl groups from reacting with water molecules.
 - Investigated viscosity, particle size, storage stability, mechanical stability and freeze-thaw durability of emulsions. Studied adhesive force, solvent resistances, stiffness, mechanical properties and thermodynamic properties of plated films.
- **Part-time Research Assistant, Tsinghua University** 10/2003-9/2004
 - Prepared a series of latex micro-spheres via semi-continuous emulsion copolymerization of styrene and sodium styrene sulfonate.
 - Studied the average diameter, polydispersity, morphology and heat endurance of latex micro-spheres, as well as the effects of the recipe and polymerizing route on them.
- **Research Assistant, Tsinghua University** 11/2002-6/2003
 - Synthesized and characterized acrylate with urethane segment and polymerized it with other unsaturated monomers via emulsion copolymerization.
 - Synthesized pre-polymer of polyurethane and dispersed it in butyl acrylate. Polymerized the butyl acrylate by virtue of in-situ emulsion polymerization.
 - Investigated the particle potential, storage stability, freeze-thaw durability and minimum film-forming temperature of emulsions as well as the adhesive force, stiffness, solvents resistances and thermodynamic properties of plated films.

SKILLS

Technical Skills

Fourier Transform Infrared Spectroscopy
Transmission Electron Microscopy
Differential Scanning Calorimetry
Thermal Gravimetric Analysis

Dynamic Light Scattering
Mechanical Tensile Testing
Column Chromatography
Viscometry

Language Skills

- Chinese and English: fluent
- Cantonese: listen well and speak a little
- Japanese: can read and write simple paragraphs

Computer Skills

- Software: MS Office, ChemOffice, Omnic(FT-IR), MatLab, Origin, CAD, C/C++
- Design: Websites, Graphs(logo, poster), Multimedia(flash, audio, video)

TEACHING AND ADMINISTRATIVE ASSISTANTS

Dept. of Chem. Eng., Tsinghua University

- TA for Principle and Practice of Water-borne Polymer System 9/2005-1/2006
- TA for Laboratory of Polymer Chemistry 2/2005-7/2005
- Administrating assistant for Lab of Fine Polymer 9/2005-7/2006
- Webmaster and computer administrative assistant 9/2003-present

SELECTED EXTRACURRICULAR ACTIVITIES

- Vice-director of Organizing Committee for Doctoral Candidates Academic Activities at Tsinghua University 12/2004-10/2005
- Vice-president of Graduate Student Union in department 1/2004-1/2005
- President of Association for Science and Technology in department 9/2001-9/2002

HOBBIES

- Interests: music (runner-up of Karaoke Competition in department, 2005), photography (photojournalist for *Tsinghua Graduate*), backpacking
- Sports: badminton (dept. team member), volleyball (dept. team member), bowling (runner-up in Tsinghua Graduate Bowling Competition, 2004), roller skating, ballroom dancing

SELECTED HONORS AND AWARDS

<i>Friends of Tsinghua</i> Scholarship for Excellent Academic Research	2005
Outstanding Youth League Member of Tsinghua University	2004
University Scholarship for excellent social work achievements	2002
University Excellent Thesis of Social Practice	2001

PUBLICATIONS

1. **Wei Xie**, Chengyou Kan, Deshan Liu. Synthesis and characterization of a novel acrylate derived from 2,4-toluene diisocyanate and its copolymerization with unsaturated monomers. *231st ACS National Meeting: Division of Polymer Chemistry*, Atlanta, GA, March 26-30, 2006. (Submitted)
2. Shiming Huang, **Wei Xie**, Chengyou Kan, et al. Sulfonate-containing copolymers prepared by semi-continuous emulsion copolymerization of styrene and sodium styrene sulfonate, *Journal of Fudan University*, 2005, 44: 865-866.