

Susan Men

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SUMMARY

- 7 years research experience focused on, but not limited to ceramic material systems. Proficient in materials design, fabrication and characterization of chemical, thermal and mechanical properties, using various techniques including SEM, TEM, XRD, AFM, FIB, hardness and compression test, etc.
- Strong communication and presentation skills developed through publications and teaching.
- Experienced in working with both academic and industry groups.

EDUCATION

PhD Candidate, Materials Science and Engineering, University of California, Irvine, 20XX

MS, Materials Science and Engineering, University of California, Irvine, 20XX

BS, Materials Science and Engineering, Beijing Institute of Technology, 20XX

SKILLS

- Proficient in scanning electron microscopy (SEM), energy-dispersive x-ray spectroscopy (EDX) and electron backscatter diffraction (EBSD)
- Transmission electron microscopy (TEM)
- Prepare TEM samples using focused-ion-beam (FIB)
- Identify crystalline phases using x-ray diffraction (XRD) and study phase equilibria.
- Familiar with mechanical properties testing, e.g. hardness, high temperature compression
- Comfortable with the operation of computer programs including *LabView*, *Adobe Photoshop*, *Adobe Illustrator*, *ImageJ*, *Igor*, *TRIM* and *Microsoft Office* for data acquisition, data analysis, image processing, simulation, etc.
- Materials synthesis through direct precipitation, sol-gel and solid state reaction routes
- Languages: fluent in Mandarin, conversational Japanese

RESEARCH EXPERIENCE

- **Graduate Researcher**, UC Irvine, September 20XX - present
 - Designed multiphase ceramic material systems for dental and energy applications.
 - Fabricated materials and investigated chemical, thermal and mechanical properties with improved processes to optimize the material systems.
 - Reported scientific finds both at international conferences and in journal publications, showing outstanding oral and written presentation skill.
 - Supervised junior members, set goals and assigned tasks, trained members on lab techniques, advised on results analysis.
 - Maintained and repaired lab equipment.
- **Research Specialist**, California Institute for Telecommunications and Information Technology (Calit2), 20XX – 20XX
 - Characterized nanotubes using atomic force microscope (AFM)
 - Corresponded with industry collaborators to communicate needs and achievements.
- **Research Visit**, Los Alamos National Laboratory, December 20XX
 - Ion-irradiation experiments on potential ceramic inert matrix nuclear fuel materials.

- Collaborated with nuclear energy specialists.
- **Other Projects Involved**, University Of California, Irvine, 20XX
 - Colloidal particles synthesis using stop-flow lithography in a microfluidic device
 - Characterization of collagen for biomedical application
- **Senior Design Project**, Biomaterials Lab, Tsinghua University, 20XX-20XX
 - Vascular Tissue Engineering And Biomaterials Made By Electrospinning Using Pla/Lecithin Blending

TEACHING ASSISTANT EXPERIENCE

- Advanced Materials Lab
- Introduction to Materials Lab
- Materials Selection and Design
- Demonstrated and guided experiments, coordinated different lab groups with multitasking, helped students during office hours, presented review sessions, Evaluated their works and provided feedback for improvement.
- Mechanical Behavior of Materials
- XRD, SEM and Microanalysis

PUBLICATIONS

- **S. Men**, M. L. Mecartney, “Superplasticity and Machinability in a 4-Phase Ceramics,” submitted, Jan 20XX
- **S. Men**, M. Patel, K. Sickafus, M. L. Mecartney, “Multiphase Ceramics for Inert Matrix Nuclear Fuel,” to be submitted, May 20XX
- C. M. Hoo, **S. Men**, L. Taherabadi, M. L. Mecartney, “Grain-Boundary Sliding in a Superplastic Three-Phase Alumina–Zirconia–Mullite Ceramic Composite,” *J. Am. Ceram. Soc.*, 94 [7] 2171–2180 (20XX)

PRESENTATIONS AND POSTERS

- **S. Men**, Y. Lu, J. Horwath, M. Sullivan, D. Mumm, M. Patel, K. Sickafus, M. L. Mecartney, “Thermal Conductivity of Multiphase Ceramics for Inert Matrix Nuclear Fuel,” 36th International Conference and Exposition on Advanced Ceramics and Composites, Oral presentation, Jan 20XX
- **S. Men**, M. Patel, K. Sickafus, M. L. Mecartney, “Multiphase Ceramics for Inert Matrix Nuclear Fuel,” Gordon Research Conference, Poster presentation, Aug 20XX
- **S. Men**, M. L. Mecartney, “Superplasticity and Machinability in a 4-Phase Ceramics,” Materials Science and Technology 20XX Conference and Exhibition, Poster presentation, Oct 20XX

PROFESSIONAL AFFILIATION

Member, American Ceramic Society

EXTRACURRICULAR ACTIVITIES

Committee leader, Society of Asian Scientists and Engineers, UC Irvine chapter, 20XX – 20XX

- Co-founded the chapter.
- Planed and organized career events providing student members with opportunities to interact with the industry.