Yanyue Wang

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EDUCATION

University of Illinois at Chicago (UIC) - Chicago, IL, USA

Doctor of Philosophy

2020 - Present

GPA: 3.9/4.0

Major: Mechanical Engineering

Research Area:

- Theoretical and experimental study of model color-changing film for prevention of medical device-related pressure injuries. Developed a low-cost fabricate method as well as links the appearance of white color on the originally transparent composite films to the pressure they experience.
- Studying and modeling bicomponent fiber extrusion process. Explore the solidification and bonding of bicomponent fibers via modeling and numerical simulations facilitated by experiments. Build a mechanical model for the stresses in the cross-section of the bicomponent fiber to predict the disjoining stress at the interface during solidification and predict de-bonding of each part of the fiber during solidification.

University of Illinois at Chicago (UIC) - Chicago, IL, USA

Master of Science

May 2020

GPA: 4.0/4.0

Major: Mechanical Engineering

Chang'an University – Xi'an, China

Bachelor of Engineering

June 2019

GPA:3.56/4.0

(Top 4% in Major)

Major: Energy and Power Engineering

PUBLICATION

- **Composite Sensor for Prevention of Medical Device-Related Pressure Injuries**

  Authors: **Yanyue Wang**, Jevon Plog, Alexander L Yarin

  Publication date: 2023/1/4

  Journal: Sensors and Actuators A: Physical

  Pages:114157

  Publisher: Elsevier

Summary: A low-cost fabrication method of colorization (white color) pressure film was proposed and demonstrated in this article, as well as linking the appearance of white color on the originally transparent composite films to the pressure they experience. Accordingly, a healthcare provider can easily detect an impending injury and take action to prevent medical device-related pressure injuries (MDRPIs).

TEACHING EXPERIENCES

- Fluid Mechanics - Lecture and Laboratory
- Introduction to Thermodynamics - Lecture
- Experimental Methods in Mechanical Engineering – Laboratory

TECHNICAL SKILLS

- **Design/Analysis Software**: SolidWorks, AutoCAD, ANSYS, ImageJ, Proteus, NI Multisim, Simulink, Arduino IDE,
- **Computer Languages**: Fortran, MATLAB, C, Python
- **Other**: Microsoft Office Suite