

# Yang Wei

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## RESEARCH INTERESTS

Mussel adhesive proteins/Keratin hydrogel & nanoparticles/Protein lubricants

## EXPERIENCE

- Associate Professor (present) | Chem Eng. & Biotechnol. at NTUT, Taipei, Taiwan.
- Assistant Professor | Chem Eng. & Biotechnol. at NTUT, Taipei, Taiwan.
- Assistant Professor | Biomedical Eng. at Asia University, Taichung, Taiwan.
- Assistant R&D Manager | AMED CO., Ltd., Taipei, Taiwan.
- Post-Doctoral Fellow | Bioengineering, U.C. Berkeley, CA, USA.
- Post-Doctoral Fellow | Bioengineering, Clemson University, SC, USA.
- R&D Engineer | Far Eastern Textile Limited, Hsinchu, Taiwan.

## EDUCATION

- Ph.D. | Bioengineering, Clemson University, SC, USA. (Advisor: Prof. Robert Latour)
- MS | Chemical Eng., Cheng Kung University, Taiwan. (Advisor: Prof. Syu, Mei-Jywan)
- BS | Chemical Eng., Tung-Hai University, Taiwan. (Advisor: Prof. Yang, Fan-Chiang)

## BIO SKETCH

Dr. Wei's passion for bioengineering stemmed from his undergraduate studies at Tung-Hai University, where he was inspired by Dr. Yang, Fan-Chiang's research on Ganoderma in submerged cultures. Since then, he has amassed over ten years of experience designing protein-based biomimetic materials, starting with his work on the adsorbent design for protein separation and purification using affinity chromatography in Dr. Syu, Mei-Jywan's lab at Cheng-Kung University in Tainan, Taiwan. He pursued a doctoral degree in Bioengineering at Clemson University, SC, USA, and continued his research as a post-doctoral researcher in Dr. Robert Latour's lab, where he focused on experimental designs of the molecular structures and bioactivities of adsorbed proteins on biomaterial surfaces. Dr. Wei then joined Dr. Phillip Messersmith's lab at the University of California, Berkeley, where he conducted biophysical studies of mussel adhesive proteins using atomic force microscopy.

Dr. Wei is an Associate professor in Chemical Engineering and Biotechnology at NTUT, Taipei, Taiwan. He has published over twenty research accomplishments based on his studies, focusing on the adsorption behaviors of mussel proteins on biomaterials with different surface chemistries. His research group's work on the structure-related hemostatic property of human hair-derived keratins at different temperatures has led to a better understanding of Crinis Carbonisatus-inspired material design to stop bleeding. In his most recent research, Dr. Wei's group explored the relationship between surface friction and the hydrophobicity of structure-related side chains on tear proteins. This study provides valuable insights for developing novel lens or lens care solutions that comfort lens wearers. Dr. Wei's research accomplishments in bioengineering have contributed significantly to the field and hold great promise for developing new biomimetic materials and technologies.