



The University of Akron
**College of Polymer Science
and Polymer Engineering**

ALUMNI SPOTLIGHT

The College of Polymer Science and Polymer Engineering is proud to recognize all of our successful and exceptional alumni who are doing exciting things both personally and professionally. Do you know who our next alumni spotlight should feature? Email us at cpspe-alumni@uakron.edu.

Dr. Sang Eun Shim, Professor, Department of Chemical Engineering, Inha University, South Korea, discusses his career path since graduating from the College of Polymer Science and Polymer Engineering and how the Polymer Engineering program has contributed to his success.

How has the College of Polymer Science and Polymer Engineering (CPSPE) influenced your career choice?

During my master's study in South Korea, I received an Ambassadorial Scholarship from the International Rotary Club headquartered in Chicago. This scholarship was to support students who wanted to study abroad. I was asked to choose five universities where I wanted to study, then the Rotary Club submitted their recommendation letter to the universities for me. At that time, I instantly chose only one—CPSPE—without any hesitation for a second. Watching many Akron alumni during my graduate school in Korea, I admired CPSPE for a long time. CPSPE was like my dream school. After returning to Korea in 2002, I served as a secretary for the Korean Akron Alumni Association for five years. My friends, colleagues who I had met in Akron, and senior/junior alumni in Korea, became strong assets for my career. Every day, I feel proud of being an Akron alumnus.



How has CPSPE prepared you for your career?

For my M.S. degree in Korea, I focused on emulsion polymerization of styrene. At that time, I read many polymer books in different fields such as polymer degradation, rubber elasticity, and so on. Surprisingly, the research topic for my Ph.D. became silicone rubber degradation under the supervision of Prof. Avraam Isayev. In CPSPE, I was able to acquire knowledge on polymer processing such as extrusion, injection moulding, fiber spinning, and rubber processing. The curriculum in CPSPE and hands-on experiences in polymer processing greatly broadened my knowledge and expertise. Due to these diverse experiences through the viewpoints of plastics and rubbers in materials and polymerization and processing techniques in manufacturing, I was able to expand my research fields in ink, adhesives, coatings, composites, sensors, energy storage materials, and catalysts, all based on polymers. Besides the curriculum and excellent research environment in CPSPE, I was personally lucky to meet my lifetime mentor, Prof. Isayev. Whenever I was struggling in research, Prof. Isayev never lost his patience, but always encouraged me with a gentle smile. I was very impressed by his way of guiding students, and I now interact in the same manner with my own graduate students. I learned great lessons in life from Prof. Isayev during my Ph.D.

What has your journey been like since graduating from CPSPE?

After graduating CPSPE in 2002, I returned to my alma mater, Inha University, as a post-doc and became an assistant professor there in 2004. Thanks to a strong network of colleagues and broad research capabilities, research fundraising was not difficult for me, so I was able to do research in many different fields. Due to these research achievements and many activities, I became the youngest Inha Fellow Professor in 2010 and then vice-dean of the Office of Strategic Planning and Budgeting in 2014.

What is your career path now?

Now, I am serving as a vice-dean of the graduate school and director of the INHA Fusion Research Center, and director of the Silicone Advanced Materials Center. Outside campus, I am also serving as an advisory member to the Ministry of Trade, Industry and Energy of the Korean Government where we develop long-term R&D strategies for both industry and academia. Of course, research and education are my top priorities. For the next five years, I

(continued on next page)

will concentrate on research since I fortunately received \$45 million USD for silicone rubber research – that is why I founded the Silicone Advanced Materials Center. My advisor, Prof. Isayev worries about me spending so much time on university administration work, but I want to say, “Please, don’t worry, Dr. Isayev, research is always on my mind!” At this moment, I don’t know what I will be like in the future, but I am trying to aim high to fly high.

Is there anything else you would like to share about yourself or your family?

One more thing that I appreciate from my time in Akron is that I met my wife, Clara, in Cleveland in 2002. She was in her last semester at Notre Dame College and I was in my last semester at Akron. We married in 2004 and now have two children, John and Stella. Clara is currently working for Du Pont (formerly Dow Chemical). Since becoming a professor in 2004, I return home very late night - I feel sorry for my family! However, in 2018, I spent my sabbatical year at the University of California, San Diego. For that year, our family had a wonderful time and made countless unforgettable memories.



2018 in Hawaii



2018 in Long Beach with Sayata Ghose (Ph.D. 2004) and her husband Tony Belcher