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James Badham

Advancing polymer chemistry through collaboration and innovation

Polymer chemistry is transforming industries, from sustainable materials to biomedicine.

Over his decades as a professor of materials, chemistry and biochemistry at UC Santa Barbara, Craig Hawker's groundbreaking research has led to major advances in polymer science. Now, in recognition of his "outstanding research and leadership in polymer science through teaching, research, technical leadership and scientific writings," he has been awarded the 2025 Herman F. Mark Polymer Chemistry Award. As the award recipient, Hawker will present a half-day symposium at the fall meeting of the American Chemical Society in Washington, DC.

Always a champion of collaborative science and engineering, Hawker said, "This recognition truly reflects the incredible work of my students, collaborators and colleagues at UC Santa Barbara, combined with their unwavering commitment to pushing the boundaries of polymer research. I am especially grateful for the collaborative environment at UCSB, where innovation thrives at the intersection of chemistry, materials science and engineering. This award is not just a personal milestone, but a testament to the power of teamwork."

"The Herman F. Mark Polymer Chemistry Award is another tremendous, and tremendously well-deserved honor for Craig Hawker, who reflects so much of what

distinguishes the UCSB College of Engineering," said Umesh Mishra, dean of engineering. "He conducts groundbreaking research to advance polymer science, of course, but that research is pursued and made possible through an unwavering commitment to collaborative interdisciplinary effort and innovation, which enables our world-class — often, world-leading — engineers and scientists, like Craig Hawker, to achieve so much. We offer Craig our sincerest congratulations and our ongoing gratitude for his leadership and dedication — to research, to teaching and to the university."

Hawker's ability to blend fundamental research with practical applications makes him one of the most influential figures in polymer and materials chemistry today. Working alongside his research group and collaborators at UCSB, he advances interdisciplinary solutions at the intersection of chemistry, materials science and engineering, with applications spanning biomedicine, consumer product and industrial materials.

A key focus of his current work is the development of biodegradable and biosourced polymers as sustainable alternatives to conventional petroleum-based materials. Hawker's groundbreaking innovations have led to numerous commercial products and applications, fostering collaborations with both start-up companies and major multinational enterprises.

Hawker, a distinguished professor of materials, is the Clarke Professor and Director of the California NanoSystems Institute (CNSI) at UCSB, the Alan & Ruth Heeger Chair in Interdisciplinary Science (Chemistry) at UCSB, and director of the Dow Materials Institute. He is an elected member of the National Academy of Sciences, the National Academy of Engineering, the American Academy of Arts and Sciences, the National Academy of Inventors and the Royal Society. A selection of recent awards include the Charles G. Overberger International Prize for Excellence in Polymer Research, an ACS Award in Polymer Chemistry from the American Chemical Society, and the Centenary Prize from the Royal Society of Chemistry.

The Mark Award is named for Herman Mark (1895–1992), an Austrian-American chemist often regarded as the father of polymer science, thanks to his pioneering work that, Hawker said, "laid the foundation for modern polymer chemistry and materials science. Mark received numerous awards, including the National Medal of Science (1979), and his contributions continue to influence modern polymer

chemistry, including applications in biodegradable plastics, nanomaterials, and advanced composites.”

Established in 1976, the Mark Award recognizes outstanding research and leadership in polymer science and is presented biennially in the fall of odd-numbered years during the national ACS meeting.

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About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.