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FIFTH EDITION

GENERAL, ORGANIC, & BIOLOGICAL CHEMISTRY

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JANICE GORZYNSKI SMITH

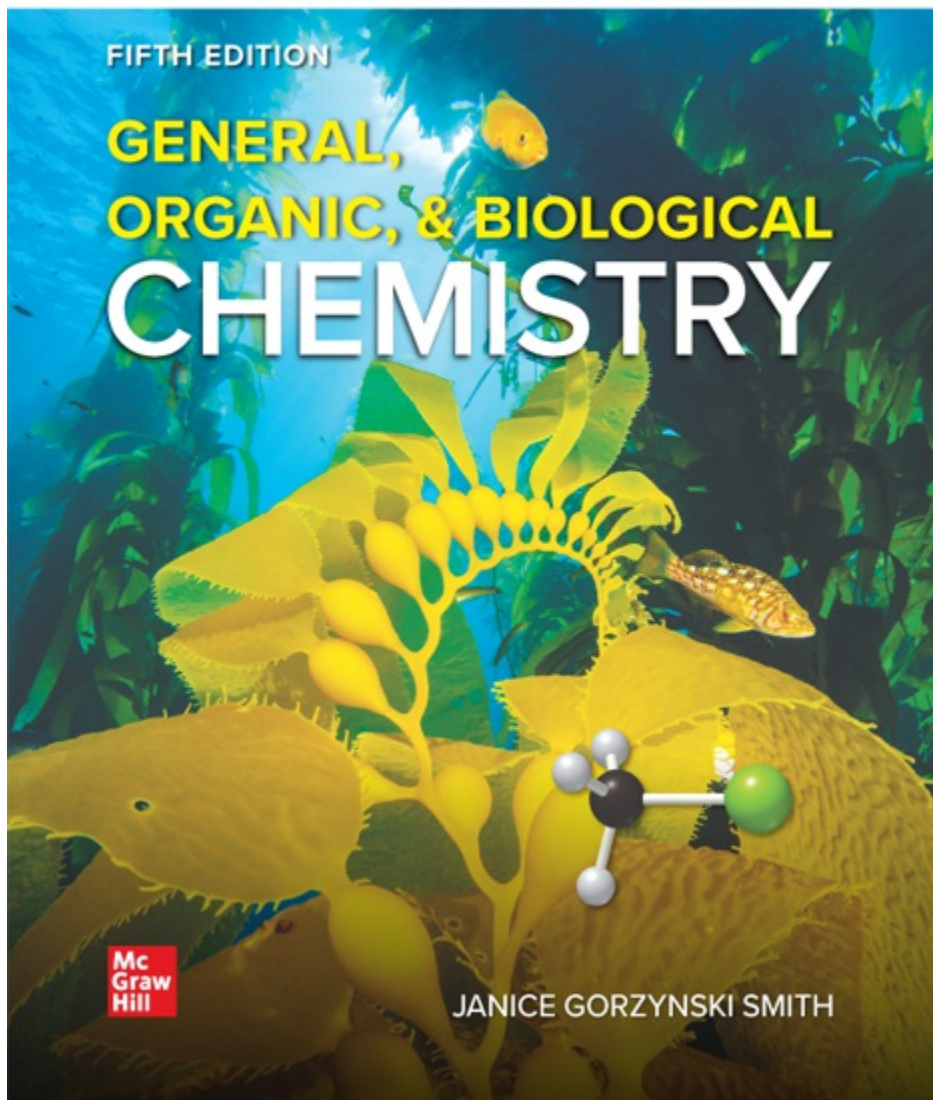
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General, Organic, & Biological CHEMISTRY

Fifth Edition

Janice Gorzynski Smith

University of Hawai'i at Ma-noa





GENERAL, ORGANIC, & BIOLOGICAL CHEMISTRY

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Daniel C. Smith

Janice Gorzynski Smith was born in Schenectady, New York. She received an A.B. degree *summa cum laude* in chemistry at Cornell University and a Ph.D. in Organic Chemistry from Harvard University under the direction of Nobel Laureate E. J. Corey. During her tenure with the Corey group, she completed the total synthesis of the plant growth hormone gibberellic acid.

Following her postdoctoral work, Jan joined the faculty of Mount Holyoke College where she was employed for 21 years. During this time she was active in teaching chemistry lecture and lab courses, conducting a research program in organic synthesis, and serving as department chair. Her organic chemistry class was named one of Mount Holyoke's "Don't-miss courses" in a survey by *Boston* magazine. After spending two sabbaticals amidst the natural beauty and diversity in Hawai'i in the 1990s, Jan and her family moved there permanently in 2000. Most recently, she has served as a faculty member at the University of Hawai'i at Mānoa. In 2003, she received the Chancellor's Citation for Meritorious Teaching.

Jan resides in Hawai'i with her husband Dan, an emergency medicine physician, pictured with her hiking in Laos in 2019. She has four children and nine grandchildren. When not teaching, writing, or enjoying her family, Jan bikes, hikes, snorkels, and scuba dives in sunny Hawai'i, and time permitting, enjoys travel and Hawaiian quilting.

Dedicated to my family, especially Max, Oliver, Alijah, Koa, Logan, Elliott, Penelope, Otis, and Isabelle

About the cover Giant kelp, a type of marine algae that grows in dense forests in cold ocean waters, is a source of atmospheric chloromethane (CH_3Cl), a simple organic compound that contains the halogen chlorine. Chloromethane, a colorless gas with a faint odor, is also formed in forests by wood-rotting fungi and is released during volcanic eruptions. Because it is a key compound in the manufacture of polymers and drugs, chloromethane is extensively produced by the chemical industry, but most of the chloromethane in the atmosphere is natural in origin. In *General, Organic, & Biological Chemistry*, we learn about the chemical properties of compounds like chloromethane.

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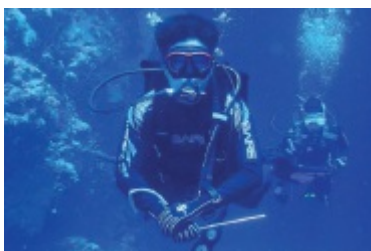
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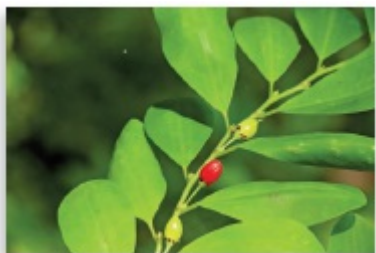
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