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## Dr. Gordon W. Gribble

### A Tribute



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This special issue of ARKIVOC is dedicated to Dr. Gordon W. Gribble on the occasion of his retirement from  
Darmouth College

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Gordon W. Gribble was born in 1941 in San Francisco, California, and completed his undergraduate education from the University of California at Berkeley in 1963, following two years at San Francisco City College from 1959-1961. He earned his PhD in organic chemistry from the University of Oregon in 1967, working with Lloyd Dolby on indole chemistry as a National Institutes of Health predoctoral fellow. After a National Cancer Institute postdoctoral fellowship in 1967–1968 with Frank Anet at the University of California, Los Angeles, Dr. Gribble joined the faculty of Dartmouth College in 1968 where he has been full professor of chemistry since 1980. His awards include the National Science Foundation Professional Development Award (1977), the American Cyanamid Academic Award (1988), the Dartmouth College Distinguished Teaching Award (1997), the University of Oregon Chemistry Alumni Achievement Award (1998), Abraham Lincoln High School “Wall of Fame” (2004), and the Dartmouth College Arts and Sciences Graduate Faculty Mentoring Award (2006). He served as department chair from 1988 to 1991. In 2005, he was named to the inaugural endowed chair as “The Dartmouth Professor of Chemistry.” He has been a visiting scholar/professor at Caltech; the University of Hawaii; the University of California, Santa Cruz; and Gettysburg College. He is a scientific adviser to the American Council on Science and Health and a member of the editorial boards of *Arkivoc* and *Current Organic Synthesis*. Dr. Gribble has published 380 papers on Nitrogen Heterocyclic Chemistry, Synthesis of Biologically Active Natural Products, Organic Synthetic Methodology, New Indole Chemistry, Anticancer Drug Design, Chemopreventive Synthetic and Natural Triterpenoids, Natural Organohalogen Compounds, and New Antimalarial Compounds. One synthetic triterpenoid, CDDO-Me (Bardoxolone Methyl), has completed a Phase 3 clinical trials for the treatment of chronic kidney disease, which is a major health problem in elderly diabetes patients. Two additional Phase 2 clinical trials are underway for chronic kidney disease and pulmonary hypertension. He holds 35 patents on synthetic triterpenoids, antitumor bis-acridines, and aminobenzotriazoles. In a collaboration with colleague Professor Jon Kull, they have discovered a new class of compounds with promising activity against ToxT, the master regulating protein involved in *Vibrio cholerae* (cholera) virulence. This bacterium infects 3 – 5 million people worldwide per year, and kills up to 130,000 people annually.

For more than 20 years he has been the Co-Editor of the annual series of monographs entitled *Progress in Heterocyclic Chemistry*, and he edited the monograph entitled *Natural Production of Organohalogen Compounds*, published as part the series *The Handbook of Environmental Chemistry* in 2003. He is an Associate Editor of *Current Organic Chemistry*, a journal of review articles in organic chemistry, and is the Editorial Board Referee Chairman of *Arkivoc*, an electronic journal of organic chemistry. He coauthored *Palladium in Heterocyclic Chemistry* with Jack Li, and has written two monographs documenting more than 5000 naturally occurring organohalogen compounds. In 2016 he had published a monograph entitled “Indole Ring Synthesis – From Natural Products to Drug Discovery,” which consolidates for the first time all of the known chemical methods for synthesizing the indole ring. For nearly a decade he has presented a short course on “Lithium, Palladium, Magnesium, Gold, and Copper in Heterocyclic Chemistry” at the annual Florida Heterocyclic Conference in Gainesville. For more than 40 years, he has written and lectured on “chemophobia” – the irrational fear of chemicals in our environment, in an attempt to add truth and science to the continual dispute about chemical toxicity: “The Dose Makes the Poison!”

In collaboration with a former graduate student, Will Sponholtz, he narrated several chemical education DVD's, “Introduction to Chemical Bonding,” “Hybridization Theory,” and “Understanding the Atom,” which are illustrated and animated videos intended for high school and beginning college chemistry courses. These educational DVD's are commercially available and have been purchased by several hundred high schools and colleges in over 20 countries. They are now available on the iTunes store in both English and Korean.

Dr. Gribble has supervised 45 graduate students (Ph.D. and M.A.), 30 postdoctoral research associates and 150 undergraduate research assistants; written over 380 publications, including research publications, review articles, and book chapters, and 4 books/monographs; presented over 500 seminars and papers at various meetings and refereed over 1,400 journal submissions, book manuscripts, and research proposals.

Dr. Gribble's outside interests include his being a nationally ranked home winemaker for the past 38 years, and having a strong interest in the chemistry of wine and winemaking. He has won numerous Gold medals and "Best of Show" at national competitions for his wines. He is a rated tournament chess player, enjoys scuba diving, and has a strong personal interest in the battles of Gettysburg and Iwo Jima, with personal connections to both and about which he has written. He lives in Lebanon, New Hampshire, with his wife, and has two children, two grandsons, and two step grandsons.

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## Selected Publications

1. Jordan, J. A.; Gribble, G. W.; Badenock, J. C. A Concise Total Synthesis of Bruceolline E. *Tetrahedron Lett.* **2011**, *52*, 6772-6774.
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5. Gribble, G. W. Occurrence of Halogenated Alkaloids. *The Alkaloids* **2012**, *71*, 1-165.
6. Roy, S.; Roy, S.; Gribble, G. W. Metalation of Pyrazoles and Indazoles, *In Metalation of Azoles and Related Five-Membered Ring Heterocycles*; Gribble, G.W., Ed.; Springer: Berlin; 2012, 155-260.
7. Roy, S.; Roy, S.; Gribble, G. W. Metal-Catalyzed Amidation. *Tetrahedron* **2012**, *68*, 9867-9923.
8. Gribble, G. W.; Fu, L.; Lin, Q-X. Attachment at Ring Positions. In *Pyridines – From Lab to Production*, Ed. Scriven, E. F. V, Elsevier: NY; **2013**, 153-373.
9. Badenock, J. C.; Jordan, J. A.; Gribble, G. W. Synthetic Approaches Towards the Marine Alkaloid Prenostodione. *Tetrahedron Lett.* **2013**, *54*, 2759-2762.
10. Fu, L.; Gribble, G. W. Efficient and Scalable Synthesis of Bardoxolone Methyl (CDDO-Methyl Ester). *Org. Lett.* **2013**, *15*, 1672-1675.
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15. Pelkey, E. T.; Jiang, J.; Gribble, G. W. Synthesis and Diels-Alder Reactions of Pyrrolo[3,4-b]indoles. A

- Synthesis of 4-Acetamidocarbazoles and an Approach to the Antiostatins. *Indian J. Chem.* **2013**, *90*, 1525-1536.
16. Lopchuk, J. M.; Montgomery, W. L.; Jasinski, J. P.; Gorjifard, S.; Gribble, G. W. Manganese(III)-mediated Oxidative Radical Addition of Malonates to 2-Cyanoindole. *Tetrahedron Lett.* **2013**, *54*, 6142-6145.
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  21. Gribble, G. W. Preface to *Heterocycles* Issue Honoring the 77<sup>th</sup> Birthday of Professor Victor Snieckus. *Heterocycles* **2014**, *88*, 1-4.
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  28. Gribble, G. W. A Recent Survey of Naturally Occurring Organohalogen Compounds. *Environ. Chem.* **2015**, *12*, 396-405 (Special Issue on Natural Halogenation).
  29. Onyango, E. O.; Kelley, A. R.; Qian, D. C.; Gribble, G. W. Novel Synthesis of 1-Bromo-8-methylnaphthalene and 1-Bromo-5-methylnaphthalene. *J. Org. Chem.* **2015**, *80*, 5970-5972.
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