Meet the Authors

Dona M. Dirlam is the director of the Richard T. Liddicoat Gemological Library and Information Center at the Gemological Institute of America (GIA) in Carlsbad, California. She holds a BS in Earth sciences from the University of Minnesota and an MS in geology and geophysics from the University of Wisconsin. She is a GIA Graduate Gemologist (GG) and a Fellow of the Gemmological Association of Great Britain (FGA). She has received GIA's highest honor, the Richard T. Liddicoat Award for Distinguished Achievement.

Barbara L. Dutrow is the Adolphe Gueymard Professor at Louisiana State University. Her studies in fluid–mineral interactions in hydrothermal systems combine field, analytical, and theoretical approaches. After conducting high *P*–*T* experiments as a von Humboldt Fellow at Ruhr Universität, her recent work, as an affiliate of Los Alamos National Laboratory, has focused on computational studies and scientific visualization of heat and mass transfer to understand their impact on mineral nucleation, growth, and chemistry in geothermal to metamorphic systems. She is also a past president of MSA.

Frank C. Hawthorne holds a Canada Research Chair in Crystallography and Mineralogy and is a Distinguished Professor in the Department of Geological Sciences at the University of Manitoba, Winnipeg, Canada. He received an ARSM and a BSc in geology from the Royal School of Mines, Imperial College, London, and a PhD in geology from McMaster University, Hamilton, Canada. He is a Fellow of the Royal Society of Canada and a Foreign Member of the Russian Academy of Sciences. He is interested in the factors affecting the atomic arrangement of atoms in solids and liquids, particularly those of geological and environmental interest.

Darrell J. Henry is a petrologist with interests in the crystal chemistry and petrologic applications of minerals (particularly tourmaline) in metamorphic and sedimentary environments, in the tectonometamorphism of Paleozoic to Archean metamorphic terranes, and in geoscience education. He received his BS (1973), MS (1976), and PhD (1981) from the University of Wisconsin–Madison. He was a postdoctoral fellow at Arizona State University and NASA's Johnson Space Center and a consultant to ARCO Oil and Gas Co. In 1985 he moved to Louisiana State University where he is the Campanile Charities Professor of Geology.

Shao-Yong Jiang is a professor in the Department of Earth Sciences, Nanjing University, China. He is also the director of the State Key Laboratory for Mineral Deposits Research (Nanjing University). He received his BSc from Peking University (China) and his PhD from Bristol University (UK). His areas of interest include the study of mineral deposits, isotope geochemistry and geochronology, and marine geochemistry. He has published more than 120 scientific journal articles. He is on the editorial boards of *Chemical Geology*, the *Journal of Geochemical Exploration*, and the *Chinese Science Bulletin*.

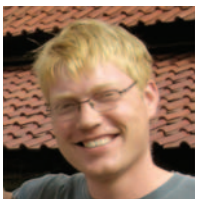
Brendan M. Laurs is an editor and technical specialist for *Gems & Gemology* at the Gemological Institute of America (GIA). He is a gemologist and geologist specializing in the formation of colored-gemstone deposits. Brendan developed an early interest in geology while exploring the gem-bearing pegmatites of San Diego County. He obtained a BS degree in geology from the University of California, Santa Barbara, and an MS degree in geology from Oregon State University. He was an exploration geologist for colored gemstones with Kennecott Exploration Co. before joining GIA in 1997.

Horst R. Marschall was appointed an assistant scientist at Woods Hole Oceanographic Institution in February 2011. His research is focused on the petrology and geochemistry of (ultra)high-pressure metamorphic rocks as probes into physicochemical processes operating at convergent plate margins. Of great importance for these studies are the minerals of the tourmaline supergroup as geochemical and isotopic recorders. He received both his diplom and doctoral degrees from Heidelberg University (Germany) and held a five-year postdoctoral appointment at the University of Bristol (UK).

Federico Pezzotta is the curator of mineralogy at the Natural History Museum of Milan, Italy. He received a PhD in geochemistry and petrology from the University of Milan and the CNR of Pisa in 1994, and in 2003 he was honored with the IMA-approved new mineral (and new gemstone) pezzottaite. He has more than 15 years of experience in gemstone prospecting and mining in Madagascar. His research interests are in the petrology and mineralogy of gemstone-bearing pegmatites and the petrogenesis of gemstone deposits.

John F. Slack is a research geologist at the U.S. Geological Survey in Reston, Virginia. His studies have dealt with the mineralogy and geochemistry of stratabound sulfide deposits, chiefly in the United States, Canada, and Norway. Topics of recent interest include the redox states of Precambrian oceans, the origins of iron formations and phosphorites, and the sources of metals in metalliferous black shales. He earned a PhD from Stanford University in 1976 and has served on the editorial boards of *Geology*, *Economic Geology*, and *The Canadian Mineralogist*. He is a fellow of the Geological Society of America and the Society of Economic Geologists.

Robert B. Trumbull is a senior research scientist at the GFZ German Research Centre for Geosciences in Potsdam. His PhD study of tin-bearing pegmatites in Swaziland was his first exposure to the study of tourmaline and African geology, and these have remained on his active list to this day. In Potsdam since 1994, his research includes a happy mix of field work and laboratory studies, the latter including the microanalysis of trace elements and the measurement of isotope ratios in minerals and glassy inclusions using SIMS. A growing interest is the study of boron isotope systematics in tourmaline, particularly from hydrothermal ore deposits.



Vincent J. van Hinsberg is a Marie Curie Postdoctoral Fellow at the University of Oxford. His main topic of research is the use of minerals to reconstruct physical and chemical conditions within the Earth and on its surface, both at the present and back to the Archean. He worked on tourmaline as an indicator of pressure and temperature in his PhD at the University of Bristol and as an indicator of fluid composition while a Tomlinson Postdoctoral Scholar at McGill University. His present research combines experiments and natural samples with atomistic simulations to understand the partitioning of elements among minerals and fluids.