



UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Memorial Tribute to

DONALD MACKAY

Professor Emeritus
Department of Chemical Engineering & Applied Chemistry

February 27, 2024

Be it resolved –

THAT the Council of the Faculty of Applied Science & Engineering record with deep regret the death on October 20, 2023 of Professor Emeritus Donald Mackay.

Professor Mackay grew up in Glasgow, Scotland, and entered Chemical Engineering at the Royal Technical College in Glasgow in 1954, graduating with a BSc in 1958 and PhD in 1961. He and his wife Ness met in Toronto when he started what would become an almost 30-year working career at the Department of Chemical Engineering & Applied Chemistry here at the University of Toronto — first working as a postdoctoral fellow with Professor Olev Trass and eventually earning his appointment as Professor in 1967.

In the early stages of his career, he spent many summers conducting research on the behaviour and remediation of oil spills in the Arctic. Some of these experiences were later reflected in his hobby of soapstone carving. His later research focused on developing a better understanding and representation of the environmental behaviour of toxic substances.

Through the course of his illustrious career, Professor Mackay authored numerous books and over 650 scientific research papers. He developed the fugacity-based "Mackay Models," which provided valuable insight into the behaviour of chemicals in the natural environment, as well as a framework for understanding their transport and degradation. These models are still used to help guide regulatory and environmental policy decisions worldwide.

In 1995, he left U of T to pursue the role of Founding Director of the Canadian Environmental Modelling Centre at Trent University in Peterborough. In 2001, he was the first Canadian recipient of the prestigious Honda Prize for his work on eco-technology. He received the title of Professor Emeritus in 2002 from both U of T and Trent. In 2003, he was appointed Officer of the Order of Canada, followed by the Order of Ontario a year later.

Throughout his life, Professor Mackay was relentlessly curious and had a passion for both nature and travel. He had the good fortune to have explored many regions of the world, from pole to pole. He was a beloved teacher, colleague, mentor and friend who is remembered for his wonderful sense of

humour and ability to distill complex concepts into memorable lessons. His research has left a tremendous legacy within our Faculty and Department, and his work has undoubtedly made the world a safer and cleaner place for all.

Be it further resolved –

THAT this tribute to Professor Emeritus Donald Mackay be inscribed in the minutes of this Council meeting, and that copies be sent to his family as an expression of the respect and gratitude of the members of this Council.