

Biographies

Donald Ryland, Ph.D.

Donald Ryland is a Chemical Scientist with the Hydrogen Isotopes Technology Branch with Atomic Energy of Canada Limited (AECL) in Chalk River, Ontario. He holds a B.Sc. in Chemical Engineering from the University of Saskatchewan and a Ph.D. in Chemical Engineering from the University of Alberta.

Donald joined AECL over twelve years ago and has been primarily involved in the modeling, simulation and analysis of plants to produce and purify heavy water. For the past four years he has been studying several processes that use energy derived from nuclear sources to produce hydrogen on a large scale. The goal of this work is to use nuclear energy to help meet the hydrogen requirements of upgrading Alberta bitumen into synthetic crude oil.

Sam Suppiah, Ph.D., P.Eng.

Sam Suppiah is the Manager of the Hydrogen Isotopes Technology Branch at AECL Chalk River. Sam graduated from the University of Birmingham with a Ph.D. in Chemical Engineering.

Sam has over 25 years experience in heavy water production technologies, operation and modeling of fluidized bed hydrogenation processes, process engineering in mass and heat transfer systems, and developing structured packing for distillation. He is a key member of the team that developed catalysts for heavy water production and purification. These catalysts are also suitable for use in hydrogen fuel cells.

Sam became the Manager of the Hydrogen Isotopes Technology Branch in 2007. In this role, Sam is responsible for providing technical leadership in areas such as heavy water management, hydrogen production using nuclear reactors, and the hydrogen economy.