

Dr. Thomas M. Rosseel

Candidate for the Committee on Nominations

Research and Doctoral Universities Constituency Group

Biography

Dr. Thomas M. Rosseel, Oak Ridge National Laboratory (ORNL), is the National Lead for the Materials Research Pathway of the US DOE Light Water Reactor Sustainability Program. Dr. Rosseel is a Senior Research Staff member and Senior Program manager in the Materials Science and Technology Division and a member of the Advanced Nuclear Materials Group. Tom received his Ph.D. in Physical Analytical Chemistry from the University Wisconsin, where he used synchrotron radiation to explore the oxidation states of transition metal oxides and was awarded a Wisconsin Alumni Research Foundation (WARF) Fellowship. He received a B.S. in Chemistry degree at the University of Michigan, where he was twice awarded the Moses Gomberg Undergraduate Chemistry Prize.

Tom, who has been at ORNL for more than 35 years, has managed numerous research projects and programs including the LWRS MRP concrete, cable, non-destructive evaluation, and Zion harvesting tasks, the US NRC Heavy-Section Steel Irradiation Program, and the Materials Science and Technology Division's Work for Others (non-DOE research) Program during which he received a Federal Laboratory Consortium (FLC) Award for Excellence in Technology Transfer as part of team that developed an improved low-cost, low particulate cook stove for use in under-developed countries. He also managed the Korean Visiting Scientist Program and served as Deputy Director of the ORNL Basic Energy Sciences (BES) Materials and Engineering Physics Program and the Technical Manager of the ORNL Laboratory Technology Research (LTR-CRADA) Program. Furthermore, Tom served as a Detailee to the DOE Office of Science, LTR program, and as the Technical Assistant to the ORNL Associate Laboratory Directors for Physical Sciences and Advanced Materials and the Advanced Neutron Source project.

He has performed research in a number of areas including heavy-ion-induced x-ray studies, positron spectroscopy, the effects of radiation on minerals, aggregates, cement, and concrete, and the effects of radiation on reactor pressure vessel (RPV) steels. As a member of the MRP, he led the effort to harvest RPV base and weld metal from the decommissioned Zion Unit 1 nuclear power plant to study the attenuation of radiation-induced embrittlement. Tom also led the formation of the International Committee on Irradiated Concrete (ICIC), which provides a forum for broad technical interactions in research on the effects of irradiation on concrete used in nuclear facilities, storage, and disposal sites, and promotes international collaborations to accelerate efforts to understand and model radiation effects on concrete.

In his spare time, Tom is an avid eclectic reader, enjoys hiking, working out, and travel. He is a supporter of the arts, science education, human rights, and the environment, and has served his community in a number of capacities including chairman of a home-owners group formed to provide buffers and fences to protect neighborhoods adjacent to the largest commercial development in Knox County, TN. Moreover, he served as the Town of Farragut North Ward Alderman for four years where he led the effort to double the size of the McFee Road Park and improve traffic safety on major arterial and subdivision roads. Tom also served for six years on the Farragut Municipal Planning Commission and numerous limited-term committees including the Recycle, Community Center, and Leisure Services Strategic Planning. Finally, he helped safeguard a monument to Admiral David Farragut dedicated by Admiral Dewey in 1901 and its relocation in 2017 to the Admiral Farragut Plaza in the Town of Farragut.

Tom and his wife Carol have been married for 38 years and have one son, David.