

## **David C. Wade**

Senior Technical Advisor  
Distinguished Fellow Engineer  
Nuclear Engineering Division  
Argonne National Laboratory

**Education**            B.S., Mechanical Engineering, University of Illinois, 1959  
                              M.S., Nuclear Engineering, University of Illinois, 1960  
                              Ph.D., Nuclear Engineering, Massachusetts Institute of Technology, 1965  
                              MBA, University of Chicago, 1985

**Professional Society**    American Nuclear Society (Since 1961)  
                                      Fellow 1985

Dr. Wade joined Argonne in 1973 and has participated in its fast reactor development programs for over 30 years. He was Associate Division Director and later Division Director during the period (1984 to 1994) of the Integral Fast Reactor (IFR) initiative and led core design and passive safety design strategy developments for the IFR.

During DOE's Generation IV Roadmap development he co-chaired the Fuel Cycle Crosscut Group and initiated dynamic scenario analyses of evolving symbiotic fuel cycles as a policy-informing input to Roadmap planning.

He has long championed a broader role for nuclear energy – moving into non-electric applications including hydrogen manufacture, and he organized and chaired several of the early OECD/NEA conferences on the subject.

Over the past several years he has promoted a new global architecture for nuclear energy, based on small fast reactors of very long refueling interval supported by a handful of regional fuel cycle facilities providing fuel supply and waste management services to thousands of such reactors. Such an architecture holds the potential to fuel global sustainable development – breaking the energy security/nonproliferation dilemma and capable of generating many centuries of ecologically friendly energy carriers (electricity and hydrogen) in a carbon-free world supply system. He helped initiate IAEA activities to study this concept and is currently conducting dynamic scenario studies to discern how best to orchestrate a century-long transition from the current fossil-based infrastructure to this new architecture within the many constraints always encountered in large-scale infrastructure/institutional evolutions.