

## Thanh Quoc Hua

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### Professional Experience

#### *Argonne National Laboratory, Argonne, Illinois*

- 1992-Present, Nuclear Engineer, Nuclear Engineering Division
- 1987-1992, Assistant Nuclear Engineer, Nuclear Engineering Division
- 1986-1987, DOE Magnetic Fusion Energy Technology Post-doctoral Fellow

### Research Experience

- 2004-Present, "Systems Analysis of Hydrogen Storage Options," Funded by DOE-EE
- 1997-2004, "Electrorefining of Spent Fuel," Funded by DOE-NE
- 1994-1997, "ITER Test Blanket," Funded by DOE-FES
- 1992-1997, "Plasma-Surface Interactions," Funded by DOE-FES
- 1990-1995, "Fusion Reactor Design," Funded by DOE-FES
- 1987-1995, "MHD Analysis of Liquid Metal Blanket," Funded by DOE-FES

### Selected Publications

- R. K. Ahluwalia, T. Q. Hua, and D. Vaden, "Uranium Transport in a High Throughput Electrorefiner for EBR-II Blanket Fuel," *Nuclear Technology*, 145, 1, 67-81, 2004.
- R. K. Ahluwalia and T. Q. Hua, "Electrotransport of Uranium from a Liquid Cadmium Anode to a Solid Cathode," *Nuclear Technology*, 140, 1, 41-50, 2002.
- R. K. Ahluwalia, T. Q. Hua and H. K. Geyer, "Removal of Zirconium in Electrometallurgical Treatment of Experimental Breeder Reactor II Spent Fuel," *Nuclear Technology*, 123, 103-118, 2001.
- R. K. Ahluwalia, T. Q. Hua and H. K. Geyer, "Behavior of Uranium and Zirconium in Direct Transport Tests with Irradiated EBR-II Fuel," *Nuclear Technology*, 126, 289-302, 1999.
- T. Q. Hua and J. N. Brooks, "Erosion/Deposition Analysis of the DIII-D Divertor," *Journal of Nuclear Materials*, 220, 342-346, 1995
- T. Q. Hua and Y. Gohar, "MHD Pressure Drops and Thermal Hydraulic Analysis for the ITER Breeding Blanket Design," *Fusion Engineering and Design*, 27, 696-702, 1995
- T. Q. Hua and J. N. Brooks, "Analysis of the Tokamak Sheath Region with In-sheath Ionization and Transport of Surface Emitted Particles," *Physics of Plasmas*, 1, 11, 3607-3613, 1994
- T. J. Moon, T. Q. Hua, J. S. Walker, and B. F. Picologlou, "Liquid Metal Flow in a

Backward Elbow in the Plane of a Strong Magnetic Field,” Journal of Fluid Mechanics, 227, 1991

- T. Q. Hua and J. S. Walker, “Three-Dimensional MHD Flow in Insulating Circular Ducts in Non-uniform Transverse Magnetic Fields,” International Journal of Engineering Science, 27, 1079, 1989
- T. Q. Hua, L. R. Turner, M. J. Knott, and R. B. Wehrle, “Experimental Modeling of Eddy Currents and Deflection for Tokamak Limiters,” Fusion Technology, 10, 2, 1986
- T. Q. Hua and L. R. Turner, “Coupling Between Eddy Currents and Rigid Body Rotation: Analysis, Computation and Experiment,” IEEE Transactions on Magnetics, MAG-21, 1985

#### **Patent**

- 2004, Patent #6,689,260, “Nuclear Fuel Electrorefiner”

#### **Other Activities**

- 1988-Present, Reviewer for ANS, Nuclear Technology, Fusion Technology

#### **Education**

- Ph.D., Nuclear Engineering, University of Washington, 1986
- M.S., Nuclear Engineering, University of Washington, 1984
- B.S., Engineering, University of Washington, 1982