



## **Tyler B. Thompson**

**Research Partnership Leader  
External Technology, Core R&D  
The Dow Chemical Company  
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Dr. Thompson's responsibilities in External Technology are to facilitate research partnerships between Dow scientists and outside organizations, including universities, federal laboratories, and government agencies. His technical focus includes engineering science, high performance technical computing, information science, and chemical process research. He has been in this position for 14 years, following 16 years of research in Dow's Central Research laboratories.

He participated in the preparation of "Technology Vision 2020: The U. S. Chemical Industry" and subsequent follow-up activities, including the leadership group for Vision 2020 affiliated with the Council for Chemical Research. He led the development of roadmaps for Computational Fluid Dynamics and Computational Chemistry. He has been cited by the U.S. Department of Energy Office of Industrial Technologies as one of their "most contributing partners".

Dr. Thompson joined The Dow Chemical Company in the Chemical Processes Laboratory of Central Research in 1976. He joined the Engineering Research Laboratory when it was formed in 1984, and transferred to the Computing and Information Technology Laboratory when it was formed in 1992. He has been in his present position in External Technology since December, 1992.

Dr. Thompson's scientific work at Dow Chemical has included:

- Development and scale-up of three-phase catalytic processes;
- Development of analytical methods for process research streams;
- Statistical design of experiments and multivariate linear modeling;
- Computer data acquisition and automatic process control for laboratory and pilot-plant experiments;
- Kinetic modeling of gas-phase combustion and free-radical chlorination processes;
- Application of quantum chemical calculations to estimating thermochemical and kinetic parameters.

He holds two Bachelor of Science degrees from the Massachusetts Institute of Technology, one in chemistry and one in "Humanities & Science" (history), and a Ph.D. in physical organic chemistry from the University of Illinois, Urbana-Champaign. He is a member of the American Chemical Society, the American Institute of Chemical Engineers, and NCURA (National Council of University Research Administrators).