

G. Joseph Ray, Ph.D.

- USP Affiliation:** Member, <761> Nuclear Magnetic Resonance (NMR) Ad Hoc Advisory Panel.
- Organization:** Baxter Healthcare
Round Lake, IL
- Presentation:** **Quality of Manufactured Medicines - Measurement Sciences**
Advanced Analytical Technologies
Wednesday, September 23, 2009, 10:30 a.m. to 12:30 p.m.

Joseph Ray has over forty-five years experience with NMR in the petroleum and pharmaceutical industries. Dr. Ray has utilized essentially every type of NMR experiment including multinuclear, multidimensional, high-resolution, and solid-state to characterize petroleum, polymers, catalysts, other organics and, most recently, drugs and biologically relevant systems. Applications have included quantitative and qualitative analysis of gases, liquids and solids. Both 1D and 2D techniques were developed and used to solve structure - property relationships for diverse business groups including organics, fuels, polyesters, polyolefins, catalysts, zeolites, and biomolecules related materials.

Dr. Ray obtained his PhD at Carnegie-Melon in 1968 and after a Post Doctoral appointment at Ohio State joined the analytical staff of Amoco in 1970. In 2000, he joined the NMR facility at Baxter Healthcare. Dr. Ray has over thirty publications and has given numerous lectures on the utilization of NMR data to solve problems in industrial settings. For twenty years, Dr. Ray, lectured high school student on the theory and application of NMR at the Illinois Mathematics and Science Academy to help them utilize their 60 MHz spectrometer. Currently Dr. Ray is a member of the USP Nuclear Magnetic Resonance (NMR) Ad Hoc Advisory Panel, which is modernizing chapter <761> on the theory and application of NMR today.