

About DR. RAJENDER (RAJ) S. VARMA



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URL's: http://www.epa.gov/nrmrl/std/organic_reactions.html

http://www.epa.gov/nrmrl/std/green_chem_nano.html

Formerly: Chemistry Research Professor, Sam Houston State University, Texas, USA

-Project Manager, Texas Research Institute for Environmental Studies (TRIES), Texas

-Senior Scientist, Houston Advanced Research Center, The Woodlands, Texas, USA

EDUCATION: -B.Sc., 1970, Panjab University, India.

-M.Sc., 1972, Kurukshetra University, India.

-Ph.D., 1976, Delhi University, India, Natural Products Chemistry;

Diploma, Pulp & Paper Technology, 1977, Norwegian Institute Technology, Norway.

Postdoctoral Fellow-Robert Robinson Laboratories, University of Liverpool, England.

PATENTS AND PUBLICATIONS: -14 US Patents awarded some others pending.

~400 peer-reviewed papers, 6 books, 26 book chapters & 2 encyclopedia contributions.

AREAS OF EXPERTISE: Development of Environmentally Benign Synthetic Methods and Chemical Protocols, Greener Synthesis of Nanomaterials and Nanocomposites and their Applications in Nano-catalysis (magnetically retrievable nano-catalysts) and Sustainable Remediation of Hazardous Pollutants [e.g. contaminated sites and streams using nanoscale iron, mercury capture from coal-fired power plants, removal of sulfur (deep desulfurization) from diesel oil etc.], Natural Products; Synthetic Organic Chemistry, Methods for Immobilization of Biomolecules on Support Surfaces; Design & Synthesis of Chemopreventive anti-cancer Agents.

ABOUT RESEARCH: Over 40 years of research experience in management of multi-disciplinary technical programs. Extensively involved in broader aspects of chemistry that includes development of eco-friendly synthetic methods using alternate energy input (microwave, ultrasound & mechanochemical). Long term goals are to contribute broad expertise in chemistry to evaluate novel and safer environmental protocols in industrial chemistry and its impact in human health and environmental sciences. Mentor for high school, college and university students.