Stanford

Dimosthenis Sokaras

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Bio

BIO

Dimosthenis Sokaras is a Senior Scientist at SLAC National Accelerator Laboratory and the Director of the Chemistry and Catalysis Division at the Stanford Synchrotron Radiation Lightsource (SSRL). His efforts focus on leveraging and expanding SSRL's capabilities to address emerging research priorities of the U.S. Department of Energy, with emphasis on energy conversion, catalysis, and next-generation technologies for industrial and national competitiveness. His work centers on the development and application of novel X-ray tools -including high energy resolution, time-resolved, and operando techniques- that enable experimental studies under realistic working conditions. He also leads the Integrated Scientific Agentic AI for Catalysis (ISAAC), a DOE Basic Energy Sciences AI Pathfinder project developing agentic AI for scientific reasoning and discovery in catalysis.

Together with his team, he bridges synthesis, performance evaluation, and advanced diagnostics with high-accuracy theoretical calculations on DOE supercomputing platforms. This integrated approach enables the interpretation of complex spectral signatures and the identification of transient and reactive states that remain inaccessible to conventional methods. Their efforts deepen fundamental understanding and support the design of more effective materials for catalysis and energy conversion.

Dr. Sokaras plays a leading role in shaping SSRL's strategic direction and strengthening its synergy with other SLAC programs and DOE national initiatives. Mentorship and team development are central to his role, and he actively builds cross-disciplinary teams that expand the facility's scientific reach and long-term impact.