

Nanotechnology for a sustainable future
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Sustainable nanotechnology strives to ensure that maximal benefit is attained in the economic, environmental and societal realms while mitigating the negative impacts on society. The current challenge, however, is that many existing nanotechnologies are not sustainable on account of their dependence on large quantities of energy, water, and solvents. In addition to being excessively resource and energy intensive, current nanomanufacturing processes utilizes non-renewable materials and their impacts on human health are not clearly understood. This talk will address the how to develop nanotechnology sustainably. This will include green synthesis of nanomaterials; sustainable energy, metrics development, and novel applications. In addition, the talk will address how Sustainable Nanotechnology Organization (SNO)—a non-profit, international professional society—will nurture and support sustainable nanotechnology initiatives.

Short Bio:

Wunmi Sadik is Professor of Chemistry & Director, Center for Advanced Sensors & Environmental Systems at State University of New York at Binghamton (SUNY-Binghamton). She received her Ph.D. in Chemistry from the University of Wollongong in Australia and did her postdoctoral research at the US Environmental Protection Agency (US-EPA). Dr. Sadik has held appointments at Harvard University, Cornell University and Naval Research Laboratories. Research areas include interfacial molecular recognition processes, sensors, and new measurement approaches and their application to solving problems in biological system, energy and the environment. Sadik chaired the first Gordon Research Conference on Environmental Nanotechnology in 2011 and the first annual conference of the sustainable nanotechnology organization in 2012 of which she is a co-founder.

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