San Antonio Nano Tech Forum

Invites you to

SANTF Networking Lunch Series

Title: **Nanomaterials for Electrical Energy Storage**

Speaker: **Prof. Arumugam Manthiram, Ph.D.**
Director, Materials Science and Engineering Program
The University of Texas at Austin, Austin, TX 78712

Venue: **Room – HEB University Center (HUC), 2.202***

Date: **Wednesday, August 14, 2013**

Time: **12.00 – 1.30 PM -** Free Lunch will be provided**

ABSTRACT:

Electrical energy stored in batteries, particularly lithium-ion batteries, powers most of the modern portable electronic devices such as cellphones and laptops. Development of new materials for existing battery technologies or new battery chemistries at an affordable cost with long life is needed to address our future energy needs. This presentation will focus on the development of next generation of electrode materials for lithium-ion batteries as well as new battery chemistries such as lithium-sulfur and hybrid lithium-air batteries. Specifically, cathodes with nanostructured coatings or nanocomposite structures as well as safe nano-engineered alloy anodes for lithium-ion batteries will be first presented, emphasizing the importance of optimizing the surface and bulk structures and novel cell configurations to overcome the persistent problems in the field.

Speaker Biography:

Prof. Manthiram currently holds the Joe E. Walter Chair in Engineering and serves as the Director of the Texas Materials Institute and the Material Sciences Engineering Graduate Program. He directs a large, productive research group in electrochemical energy technologies with 30 graduate students and postdoctoral researchers. His current research is focused on lithium-ion batteries, fuel cells, solar cells, and supercapacitors. Specifically, his group is engaged in developing new, low-cost, efficient materials for these clean energy technologies, novel chemical synthesis and processing approaches for nanomaterials, and a fundamental understanding of their structure-property-performance relationships.

***Please visit http://www.utsa.edu/maps/pdf/12MainCampusPadMap.pdf for campus map.** Park in the garage on Ximenes Drive. When walking out of the garage (near the elevators), the HEB University Center building will be in the NW direction.

****Please RSVP to: info@santf.net. Please check our website (www.santf.net) for complete program details and upcoming meeting schedule.**

****Lunch will be provided with prior registration ONLY. Last date for registration is August 12**.**