

## **PL-3.7**

# **Nano Silicon for Advanced Biomedical and Renewable Energy Technologies**

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A novel silicon nanomaterial was invented at the University of Illinois, and it has been investigated for the development of advanced photonics, electronics, energy and biomedical nano devices. We present in this talk experimental as well as theory and simulation results for the synthesis, structure, basic principle, characteristics and delivery of the silicon nanoparticle material. We also present advanced device concepts for applications in biomedical and renewable green energy harvest and storage, and lighting. Our commercial activities and intellectual property protection in this field will also be discussed.