



北京大学量子材料科学中心

International Center for Quantum Materials, PKU

Special Seminar

**Topographic Control of the Structural Energetics of 2D systems, and
Topochemically Driven Formation of a New Form of 1D sp^3 Carbon**

Vincent H Crespi

The Pennsylvania State University



Time: 10:00am, June 7, 2016 (Tuesday)

2016 6 7

10:00

Venue: Room w563, Physics building, Peking University

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I will describe how topographical constraints can control grain boundary geometry and location in 2D systems, and also describe the recent discovery of a one-dimensional form of sp^3 -hybridized carbon, the carbon nanowire. As time allows, I will also discuss folding energetics in 2D systems and phase diagrams of condensed matter systems at ultra-high pressures relevant to astrophysical phenomena in white dwarves and neutron star crusts.

Vincent H Crespi received his B.S. degree in Physics from Massachusetts Institute of Technology in 1988, and got Ph.D. degree in physics from University of California, Berkeley in 1994. Now he is a professor of Physics, Chemistry, and Materials Science and Engineering at Penn State, and a director in Penn State Center for Nanoscale Science, a National Science Foundation Materials Research Science and Engineering Center. He is also a Theory Lead, 2 Dimensional Crystal Consortium, a National Science Foundation Materials Innovation Platform.