

# 4<sup>th</sup> International Conference on **Nanotek & Expo**

December 01-03, 2014 DoubleTree by Hilton Hotel San Francisco Airport, USA

## The energy transformation of mono-dispersed nanometer cluster forming process quantum mechanical

**Lihong Su**

Northwestern Polytechnical University, China

A new theory is developed that the relation between nanometer material property and quantum mechanical of peripheral electron of surface atom, indexed each stable mono-dispersed nanometer cluster that exist as quantum standing wave in its interior microstructure. During the mono-dispersed nanometer cluster material forming process, the surface atom's solitary electron energy transform to the interior atom's peripheral electron. The nanometer cluster material need additional energy to form mono-dispersed state, the additional energy is electron quantum standing wave energy flow. The nanometer material melting point decreasing can be explained well by the new theory. The quantum standing wave in the center of nanometer material is the physical essence that nanometer-scale cluster material exists with many special characteristics.

[hshong@nwpu.edu.cn](mailto:hshong@nwpu.edu.cn)