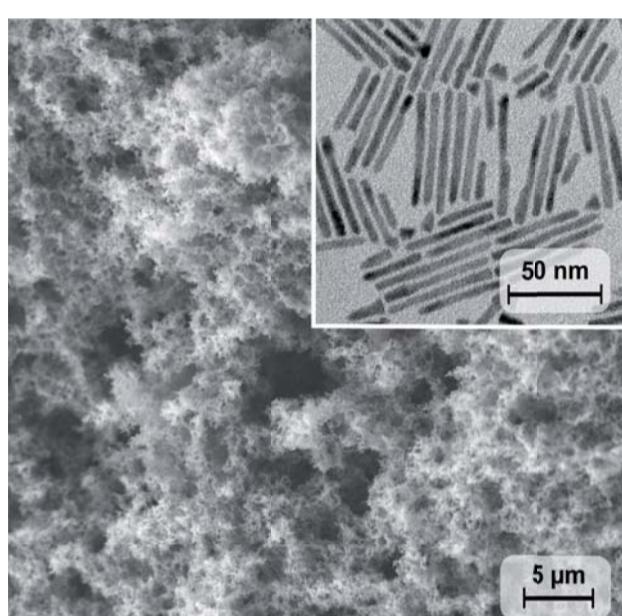


NanoDay 2015

Donnerstag 01.10.2015

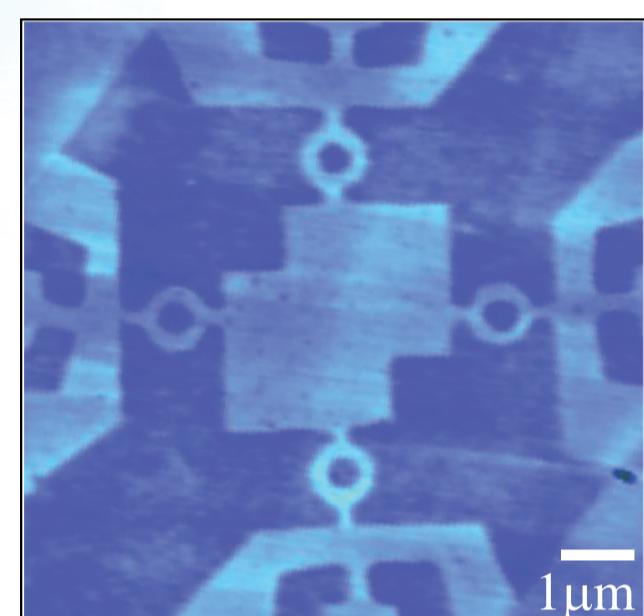
Vorträge: Appelstr. 4, 30167 Hannover, Multimediahörsaal,
Technische Informatik (Gebäude 3703)
Postersitzung: Schneiderberg 39, 30167 Hannover, Foyer,
Laboratorium für Nano- und Quantenengineering (Gebäude 3430)

Programm

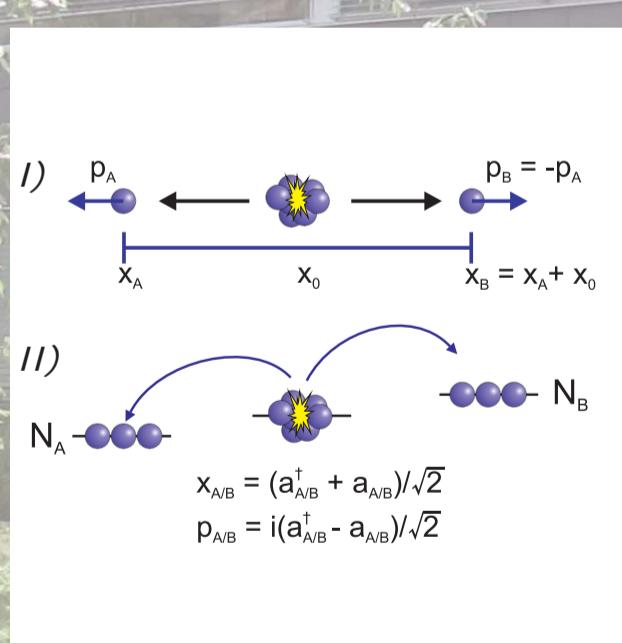


SEM image of an aerogel obtained from CdSe-CdS core-shell nanorods. The inset shows a TEM image of the respective nanorods of which the highly porous structure consists of. (S. Naskar/PCI)

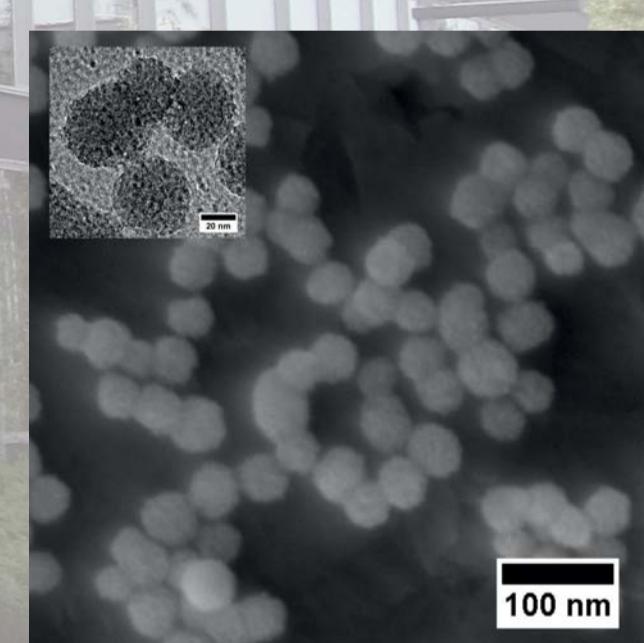
- 09:15 Begrüßung
- 09:15 - 10:45 Sitzung I (im Multimediahörsaal)
- "Aharonov-Bohm effect in graphene"
Dmitri Smirnov
Institut für Festkörperphysik, Abteilung Nanostrukturen
- "Functional Assemblies of Nanocrystals"
Jan Poppe
Institut für Physikalische Chemie und Elektrochemie, Arbeitsgruppe Bigall
- "Non-cubic Gd_2O_3 on Silicon Substrates"
Matthias Möllers
Institut für Materialien und Bauelemente der Elektronik
- 10:45 - 11:15 Kaffeepause
- 11:15 - 12:15 Sitzung II
- "Stable anodes for lithium ion batteries made of self-organized mesoporous silicon"
Sascha J. Wolter
Institut für Solarenergieforschung, Abteilung Photovoltaik
- "Einstein-Podolsky-Rosen entanglement in Bose-Einstein condensates"
Bernd Lücke
Institut für Quantenoptik
- 12:20 Konferenzfoto
- 12:30 - 13:30 Mittagspause
- 13:30 - 15:00 Postersitzung (im LNQE-Forschungsbau)
- 15:00 – 16:30 Sitzung III
- "Surface functionalization at micro- and nanoscale by ultrashort laser pulses"
Elena Fadeeva
Laser Zentrum Hannover e.V., Nanotechnology Department
- "Plasmons in low dimensional systems"
Timo Lichtenstein
Institut für Festkörperphysik, Abteilung Atomare und Molekulare Strukturen
- "Improving Biomedical Silicone by Sophisticated Silica Particles"
Tanja Heemeier
Institut für Anorganische Chemie, AK Festkörper- und Materialchemie
- 16:30 – 16:45 Verleihung des Posterpreises (im Multimediahörsaal)



An Atomic Force Microscopy picture of a connected 4-ring structure etched in graphene monolayer. (D. Smirnov/FKP)



Einstein-Podolsky-Rosen correlations. I) EPR's original work describes two particles A and B with maximally correlated position and momentum coordinates x_A and p_A , and $x_B = x_A + x_0$. II) Spin dynamics in a Bose-Einstein condensate can be used to create EPR correlations between $N_{A/B}$ atoms in two different Zeeman levels A and B. The correlations appear in amplitude x_{AB} and phase p_{AB} quadratures which are defined as a function of the creation and annihilation operators $a_{A/B}^\dagger$ and $a_{A/B}$ in the two modes. (C. Klempert/IQO)



Scanning (big) and transmission (small) electron micrograph of spherical nanoporous silica nanoparticles (NPSNPs) with 40 nm in size. NPSNPs were used as special filler material for biomedical silicone. (T. Heemeier, A. Satalov, S. Springer, P. Behrens/ACI)