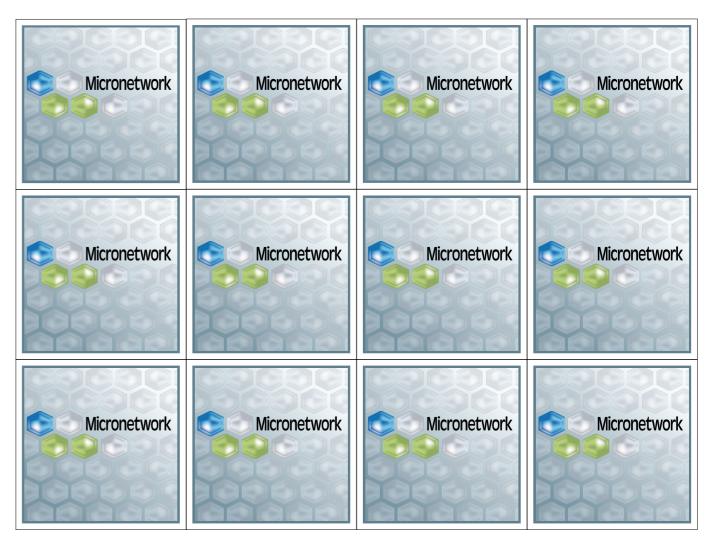
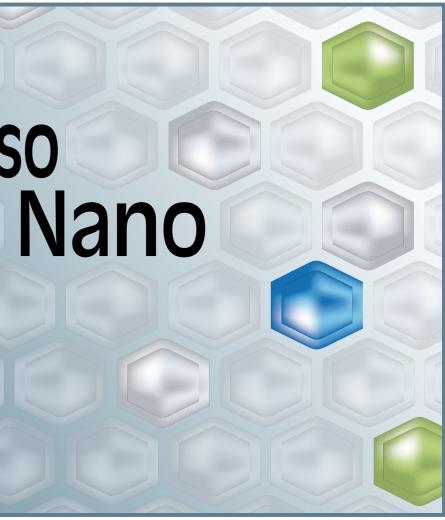


Personal





## Pexeso Nano

- 1 carbon balls of diameter 1.1  $\mu m$  with organized magnetic iron oxide nanoparticles
- 2 forest of carbon nanotubes ruffled using tweezers
- 3 catalytic nanoparticles at the ends of carbon nanotubes revealed using backscattered electrons
- 4 local fault of ultrananocrystalline diamond growth (area radius 70  $\mu m)$
- 5 nucleation of nanocrystalline diamond with crystal size about 0.1 to 1  $\mu m$
- 6 film formed by iron oxide nanoparticles of typical size 150 nm
- 7 chains of superparamagnetic iron oxide nanoparticles imaged using transmission electron microscopy
- 8 carbon nanowalls formed by several graphene layers
- 9 structures formed by microcrystalline diamond (field of view 18 µm)
- 10 end of carbon nanotube with an inner catalytic particle imaged using transmission electron microscopy
- 11 growth of bundles of carbon nanotubes on a catalyst patterned using electron litography
- 12 nucleation of ultrananocrystalline diamond film growth (field of view 35  $\mu m)$
- 13 diamond microcrystal in the shape of an icosahedron with 2.8  $\mu m$  long edge
- 14 coalescence of nucleation centres in ultrananocrystalline diamond (field of view 14  $\mu m)$
- 15 diamond microcrystal with 2  $\mu m$  long edge in a matrix formed by nanocrystalline diamond
- 16 detail of local fault of ultrananocrystalline (ballas) diamond growth (field of view 5  $\mu m)$
- 17 forest of carbon nanotubes with radius of 10 to 20 nm and length of 80  $\mu m$
- 18 ballas diamond containing graphitic lamellas (radius 6  $\mu m)$

Micrographs were obtained using scanning electron microscopy if not stated otherwise.

Production of this Pexeso game was supported by the Micronetwork project – Partner Network for Cooperation of Universities, Research Institutes and Industry for Development of Microelectronics and Nanotechnologies.

© 2012 Masaryk University. The images were used with kind permission of researchers from Department of Physical Electronics at Faculty of Science, Masaryk University.



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

