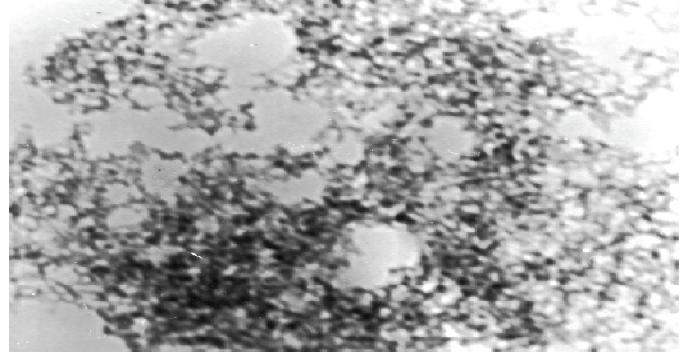
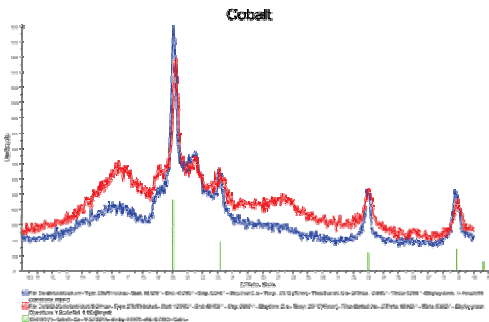


Self-assembling nanocrystalline powders of Co and CoNi

DESCRIPTION:

Nanocrystalline powdery material obtained by chemical synthesis (sol-gel method), with size of particles less than 20 nm.



Powders XRD of Co and CoNi obtained by technique of reducing with sodium boron hydride

MAIN CHARACTERISTICS:

- Composition: Co, CoNi;
- Crystallographic phase: cubic and hexagonal;
- Crystallites size: 8 - 20 nm
- Specific magnetic moment: 0.136 - 102.117 emu/g;
- Coercitive field: 35.7 - 681.7 Oe

APPLICATIONS:

Magnetic nanoparticles were and are of big theoretical interest to study the magnetism, but in the same time are of a big importance for practical applications as: materials for magnetic records, catalysts, magnetic fluids, some tumour therapy or as drugs carrier.

SOCIO-ECONOMIC AND ENVIRONMENT EFFECTS:

- Exploitation of quantized size nanoparticles and of 2D and 3D self-assembling nanostructured materials will lead to materials production, nanoelectronics, medicine and health, environment, energy, chemistry, biotechnology, agriculture, information technology and security.