Diana Nesheva graduated from Sofia University, Bulgaria in 1976. She studies on inorganic amorphous and crystalline materials such as chalcogenide glasses and thin films, a-CdS, a-Si:H and a-Si1-xGex:H thin films, photorefractive Bi12SiO20 crystals etc. She has great experience in vacuum techniques for preparation of semiconductor thin films as well as in electrical, photoelectrical and optical characterisation of crystalline and amorphous semiconductors. Subjects of her recent interest are two-component systems including low-dimensional inorganic semiconductor materials (multilayers and superlattices from amorphous and nanocrystalline materials as well as semiconductor nanoparticles embedded in various matrices). Studies on these systems are concentrated on size-induced effects in the electron and phonon subsystems, structure and structural stability, transport mechanisms etc. X-ray diffraction, high-resolution electron microscopy, Raman scattering, photoluminescence, absorption and electrical measurements are carried out. Very recently the studies on the nanostructured thin films have been directed to development of gas-sensors. Dr. Nesheva is author and co-author of 110 original papers, most of which are published in representative International Journals. She is head of the laboratory "Photoelectrical and optical phenomena in wide gap semiconductors"and of the department â€œNanophysicsâ€ in the Institute of Solid State Physics of BAS.