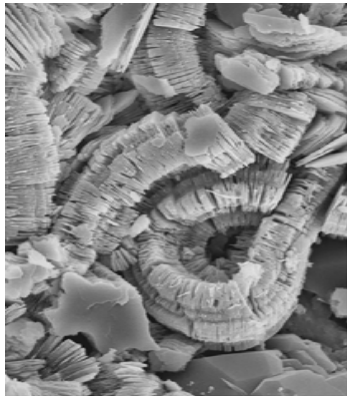
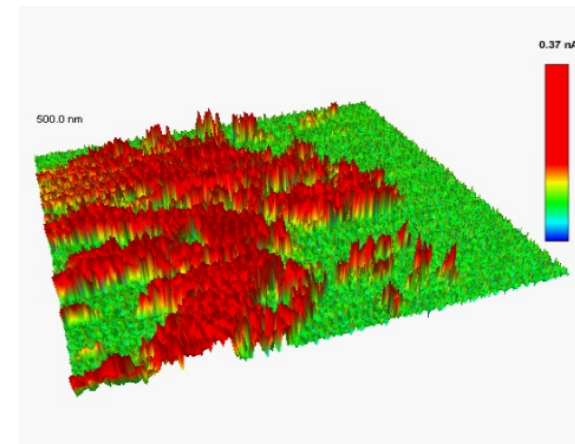


Design of functional materials/nanocomposites

Different polymer matrix/modified layered silicate nanocomposites. Novel nanostructured engineering hybrid materials with increased exploitation properties, and enhanced competitiveness. Designing of multiphase polymer composite materials by use of high energy chemistry technologies (radiation treatment). To elaborate new multifunctional polymer and electroconductive nanostructured particle composites for flexible mechanical strain and pressure sensors gas, vapour and liquid sensors.



Investigation of quasi-static short-term properties



Conductive AFM image of electroconductive carbon channels (red) dispersed in matrix of polyisoprene (green) of composites containing 10 mass parts of carbon nano-particles. (Size of picture 500 nm x 500 nm)