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His research activities are mainly focused on nanosciences and nanotechnologies, particularly the development and the application of scanning probe microscopies (scanning tunnelling microscopy, STM, and atomic force microscopy, AFM) for the study of material surfaces, especially polymers, and to nanomaterials. It includes the measurement and mapping of the surface mechanical properties of organic surfaces and of the mechanical properties of nanomaterials (nanomechanics), the mapping of surface physico-chemical properties, surface chemical functionalization (nanochemistry), the measurement and mapping of electrical, electronic, ferroelectric and magnetic properties of (hybrid) nanostructures (nanophysics).