## Doctoral School in Chemistry

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The doctoral school in Chemistry is specialists in the field of inorganic chemistry, physical chemistry, organic chemistry and organometallic chemistry by approaching interdisciplinary areas of global interest such as: organometallic compounds of non-transition metals with potential applications in the storage and transfer of CO2, ligands in the transition metal coordination chemistry, materials with special optical or electronic properties with applications in obtaining chemical sensors or in homogeneous catalysis, NMR contrast agents (imaging), compounds with potential biological activity (antitumor activity, anti-inflammatory activity) electrode materials (modified electrodes, organic and inorganic aerogels, thin films with special properties) with electrocatalytic properties and photo(electro)catalytic properties, (amperometric and potentiometric) electrochemical sensors/ biosensors for detection of chemical species of biotechnological and biomedical interest, electrodeposition of metals and composites, corrosion of metals and artifacts, synthesis and characterization of modified electrodes in electroanalytical applications, electrochemical processes in the environment, nano-materials, materials with special optical and electronic properties, with applications in obtaining new materials, catalysts, miniature electronic devices, molecular design and drug design, iterative-dendritic synthesis; melamine dendrimers by iterative-convergent synthesis, melamine dendrimers as "drug delivery systems", design, synthesis, structure and properties of new technomimetic molecules (molecular machines) and of complex systems based on supramolecular associations, formation of supramolecular aggregates and their dynamics, guided by molecular recognition processes. Doctoral supervisors and doctoral students initiate and develop collaborations with prestigious research groups worldwide in the addressed fields, also pursuing the development of joint degree theses.

