# Research Centre for Natural Sciences Hungarian Academy of Sciences

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Address

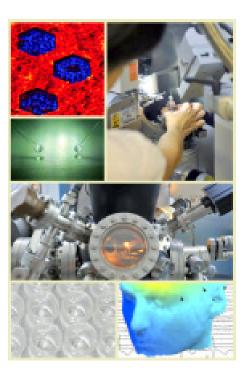
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## RESEARCH CENTRE FOR NATURAL SCIENCES

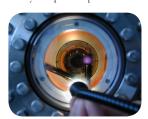
## HUNGARIAN ACADEMY OF SCIENCES



Budapest



The Institute of Materials and Environmental Chemistry studies functional and structural materials, micro- and nanosized surface layers and solid/liquid interfaces in order to reveal correlations among their chemical composition, structure, properties and methods of preparation. The institute is involved in research aimed at developing new procedures and methods decreasing environmental impact of technologies. Understanding and interpretation of pollution-induced chemical processes in the atmosphere also belong to the main research topics. They explore processes important in the development



and operation of energy carriers for energy storage and transformation, as well as those involved in the exploitation of renewable energy sources.

The Institute of Enzymology pursues research goals stretching across multiple fields of science, resulting in interdisciplinary research using the methods of biology, chemistry physics and informatics at the same time. Structural biological basic research of the institute is directed towards understanding physiological and

pathophysiological processes on the scale of molecules and cells. Research topics are continuously extended from structural biology towards system biology to reveal complex biological processes by the utilization of advances in proteomics and bioinformatics.



The activity of the **Institute of Cognitive Neuroscience** and **Psychology** concentrates on psychology and related topics of cognitive neuroscience. Research activity covers



areas of social-, cross-cultural-, cognitive-, developmental, and comparative psychology and psychophysiology. Much effort is devoted to developing practical applications of basic research achievements. The institute emphasizes collaboration with other branches of natural and social sciences.

Activities of the **Institute of Organic Chemistry** involve the synthesis of organic molecules, structure elucidation and theoretical investigation. The synthetic activity mostly aims at the preparation of heterocyclic compounds, carbohydrates, and polymers as well as the elaboration of novel methodologies (e.g. organocatalysis, supramolecular synthesis). Investigations by NMR spectroscopy, mass spectrometry and single crystal diffractometry provide substantial approach to the determination of chemical structure. Furthermore, theoretical investigations are carried out in order to rationalize structures and reaction mechanisms.



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