

Proposal Acronym	ZCat4Water
Proposal Title:	Preparation and Characterization of Zeolite Based Catalysts for Phenolic Wastewater Treatment
Surname:	Maduna Valkaj
First name(s):	Karolina
Research area:	Chemistry CHE,Information science and Engineering ENG,Environment and geosciences ENV
Sub-discipline of research area:	Catalysis, Chemical reactions, Structural properties of materials, Solid state materials, Surface modification, Porous materials, Homogeneous and heterogeneous catalysis, Characterization methods of materials, Numerical analysis, simulation, optimisation, modelling tools, data mining, Chemical Engineering, technical chemistry, Pollution (water-soil) - wastedisposal and treatment, ODE and dynamical systems, Numerical analysis and scientific computing, Chemical instrumentation
Category of research:	developmental
[Redacted]	[Redacted]
Abstract:	Preparation of a stabile catalyst that can more effectively eliminate toxic phenolic substances from industrial effluents by catalytic wet peroxidation process under mild reaction conditions (atmospheric pressure and $T < 353$ K) would have a positive effect to the intensification of the research in connection to this environmental issue, on both local and international level. The physical, chemical and experimental methods that are to be used in obtaining this primary goal in practice include conventional as well as state-of the art techniques of catalyst preparation, modification and characterization. Special interest of the proposed research is oriented towards the production of the efficient catalyst that has optimal activity to stability performance, meaning that besides from showing good activity in the process it should also possess satisfactory mechanical, thermal and chemical stability what always was and still remains a challenge in the specific research field.
Does this proposal possess any of the sensitive ethical issues detailed in ethical issues table?:	No