

**Electrokinetic phenomena in natural nano/micro-fluidic and disperse systems: characterizing, treatment, modelling**

NRFU Competition "Leading and Young Scientists Research Support"

Project ID: 2020.02/0138

Start date: 1 September 2020 End date: 31 December 2022

The project is concerned with Electrokinetic Phenomena in natural micro/nano-fluidic systems, composed by solid and “soft” phases and containing micro- and nano-sized voids filled by a fluid (soils; clays; sands etc). The project focuses on Electroosmosis through such systems and on the Electrokinetic Dispersion phenomenon - drastic intensification of solute transport by passing electric current through the system. It is planned to study both the effects for model systems and for natural soils. The studies will also be applied to the technologies of Electrokinetic Remediation and Bio-remediation of Soils.