


Brian BERKOWITZ		
Function:	Professor	
Institution:	Weizmann Institute of Science (Weizmann)	<input type="checkbox"/> Funding Agency <input checked="" type="checkbox"/> Programme Manager
Email:	brian.berkowitz@weizmann.ac.il	
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Division	Dept. of Earth and Planetary Sciences	
Areas of Expertise:		
<p>Groundwater hydrology with interests in characterization and analysis of flow and transport processes in porous and fractured media; theoretical modeling techniques based largely on approaches from statistical physics; design of novel laboratory experiments to investigate a range of flow, chemical transport, and precipitation/dissolution processes in fractured and heterogeneous porous media; magnetic resonance imaging of fluid flow and dissolution in rock fractures and of colloid transport in porous media; measurement of capillary fringe transport behavior; measurement of precipitation and dissolution processes; analysis of geochemical aspects of contaminant fate and mobility in geological media; investigation of transport of emerging contaminants, focusing on pharmaceuticals, engineered nanomaterials, and technology critical elements. Co-author of more than 300 publications, of which over 170 in ISI index journals (complete CV and publication list at http://www.weizmann.ac.il/EPS/People/Brian/)</p> <p>Selected 3 publications</p> <p>Naftaly, A., I. Dror, B. Berkowitz (2016), Measurement and modeling of engineered nanoparticle transport and aging dynamics in a reactive porous medium, <i>Water Resour. Res.</i>, 52, doi:10.1002/2016WR018780.</p> <p>Raveh-Rubin, S., Y. Edery, I. Dror, B. Berkowitz (2015), Nickel migration and retention dynamics in natural soil columns, <i>Water Resour. Res.</i> 51, 7702-7722, doi:10.1002/2015WR016913.</p> <p>Edery, Y., I. Dror, H. Scher, B. Berkowitz (2015), Anomalous reactive transport in porous media: Experiments and modeling, <i>Phys. Rev. E</i>, 91, 052130, doi:10.1103/PhysRevE.91.052130.</p>		
Short Description of your Institution:		
<p>The Weizmann Institute of Science in Rehovot, Israel is one of the world's leading multidisciplinary basic research institutions in the natural and exact sciences. The Institute, comprised of five faculties and 18 departments, conducts research and offers graduate education in the breadth of scientific disciplines, with an emphasis on cross-disciplinary investigation. The Weizmann Institute has a long history of investigation and discovery rooted in a mission of advancing science for the benefit of humanity. In parallel, it educates a substantial proportion of Israel's scientific leadership and advances science literacy in schools and among the public.</p>		
Role in the project:		
<p>Co-Coordinator. Weizmann will be involved in several WPs of the project. Specifically: Examine the transport behavior of representative Emerging Contaminants (ECs) in laboratory column experiments; Examine EC transformation/weathering products in environmentally-relevant conditions; Model fate and transport of ECs; Dissemination of results. communication with stakeholders/general public.</p>		