

Dimin Fan



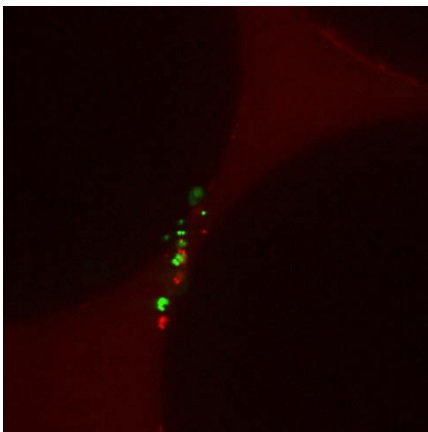
Environmental Soil Physics
Department of Plant and Soil Sciences
University of Delaware
Newark, DE
U.S
19716
Email: skyrock@udel.edu

Education

M.S. Environmental Soil Physics, University of Delaware, 2007- present
B.S. Environmental Chemistry, Nanjing University, China, 2003-2007

Research Interest

My research interests mainly focus on visualization and modeling of transport of colloids in saturated porous media. Natural pore structure of soil is simulated by building the micro model packed with glass beads. Using laser scanning microscope, three dimensional motions of fluorescent colloids within the micro-model can be tracked in real time. Grain-to-grain contact region is of particular interest, since deposition of colloids into this region is proposed as one of the main mechanisms of colloid retention under unfavorable conditions. Further combining with three-dimensional modeling, the role of hydrodynamic effects and solution chemistry playing on the attachment and detachment of colloids are quantitatively described.



High-speed confocal image of colloid transport in pore structure