



Micromorphology use for visualization of fly-ash distribution in sandy material

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Fly-ash migration in three sands of various particle size distributions and consequently various porosities, was studied in the laboratory. The fly-ash was applied on the top of all sands packed in plastic cylinders followed by pulse infiltrations. Water regime was monitored using the soil water content sensors and tensiometers. Kappameter SM400 (Petrovský at al., 2004) was used to monitor migration of ferrimagnetic particles-tracers presented in the fly-ash. Undisturbed samples of sands polluted by fly-ash were taken at the end of the experiments to study final fly-ash distribution in thin sections. Images showed that while fly-ash migrates freely through the coarse sandy material, in the other two sands fly-ash is accumulated in few bottle neck pores. However, fly-ash mobility was documented in both cases. Information about image porosities and pore blocking will be used as input data for numerical simulation of observed fly-ash transport.

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