

## **KINEMATIC APPROACH TO THE TRANSPORT OF IODIDE IN A HEAVY CLAY SOIL IN SITU**

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In the framework of a joint Swiss-Slovak research program, we periodically measured I-131 profiles at 12 sites within a 1m<sup>2</sup> – infiltration plot during 5 days. Soil moisture was continuously measured at depths 10, 30, 50, 70, and 90 cm, using a multiplexed TDR-system. Five infiltration experiments were performed, applying each time 27 mm of water. We added I-131 as tracer to the water of the second experiment. The variations of the iodide profiles and the variations of soil moisture showed patterns of diffusive and preferential flow.

The result of a kinematic wave approach to the measurements allows to assess whether flow was mainly diffusive or preferential. The model is also applied to the transport of I-131.