Georadar equipment for measuring small structures and fast processes

Technology Description

A method for non-destructive testing of a sample with a radar device comprising a plurality of transceivers.

Problem

The existing (geo)radar devices are mainly used to investigate aquifers. However, the need to detect smaller structures and map fast processes (e.g. flow paths) is constantly increasing. The existing systems are not highresolution and not fast enough for this.

Solution

A method for the non-destructive examination of a sample using a (geo)radar device with several transceivers is used, whereby the transceivers can function both as transmitters and receivers. Calibration in air is not required as reciprocal measurements are carried out between two transceivers. The method can also capture smaller structures or map faster processes than conventional methods.

Potential Use

The method can be used to investigate the near-surface subsurface of soils.

Development Status and Nex Steps

The proof of concept on a laboratory scale has been achieved.



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