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Microwave Characterization of Soil Conductivity Post Contamination and Reclamation at 10.58 GHz

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Abstract: This study investigates the conductivity behaviour of contaminated and reclaimed soil samples over varying moisture contents at a frequency of 10.58 GHz. Measurements were taken across a range of moisture contents (0-30%) for five different sample sets. Results indicate that contamination significantly elevates soil conductivity compared to reclaimed soils, with differences becoming more pronounced at higher moisture contents. These findings contribute to the understanding of dielectric property restoration following soil reclamation processes.

Keywords: soil conductivity, contamination, reclamation, moisture content,

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