

**A preliminary study on the dielectric properties of a Malaysian "Rock" saturated with water and crude oil**

**S. IBRAHIM: A.H. SHAARI & K. KHALID, Universiti Pertanian Malaysia, Serdang**

*A preliminary study on the dielectric properties of a quartz crystal aggregates taken from Klang Gate's quartz ridge was conducted. The basic theory, the experimental set-up and the method of investigation were outlined. The dielectric properties of dry quartz crystal aggregates and two varieties of Malaysian crude oil were investigated. Saturating the quartz aggregate with crude oil or water has been found to increase the dielectric permittivity of the specimen. The effect of varying the frequency of the incident x-band microwave on the permittivity of the specimen was also investigated. Saturating the specimen*

*with crude oil seems to have an additive effect on the dielectric permittivity of the quartz crystal aggregates in the frequency range employed in this experiment.*

\*\*\*\*\*