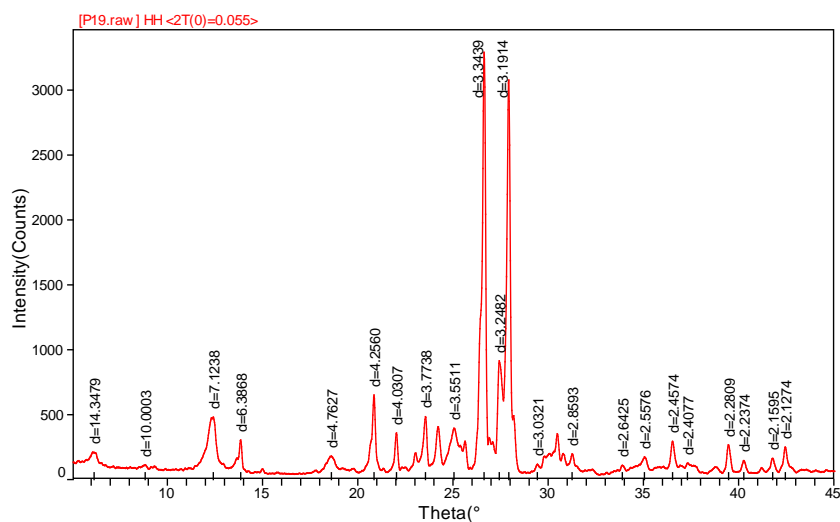


## Supplementary materials



**Fig. S1.** XRD diffraction pattern of the experimental core sample.

Note: The core sample constitutes quartz, plagioclase, potash, feldspar, calcite, illite, and chlotite (oil-wetting clay) in corresponding proportion of 18.6%, 50.5%, 17.6%, 0.3%, 1.0%, and 17.5%.