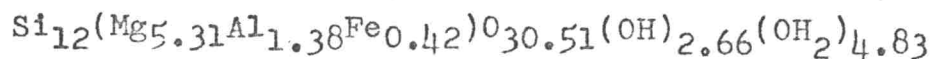


and of sepiolite, on the basis of anion $(\text{Si}_{12}\text{O}_{30})^{12-}$:



Water content was determined from weight loss curves on derivatograms /5,6/.

Experimental method. The samples were subjected to hydrostatic pressure ($P_{\text{H}_2\text{O}} = 800, 1400, 2000 \text{ kg/cm}^2$) in cold seal pressure vessels of the Tuttle type /7/. The charges were sealed in platinum capsules, heated at temperatures from 100 to 700°C, and quenched under identical conditions for both minerals. The x-ray diffraction data were obtained on diffractometer DRON-1, and in part ⁿ of diffractometer URS-50 I, ~~using~~ using filtered copper radiation. The diffractometer traces were recorded under exactly the same conditions in all experiments.

Fig.1

EXPERIMENTAL DATA

The diffractometer traces of the experimental products are shown in Figs. 2 and 3. The crystal structures of palygorskite and sepiolite in the pressure interval from 800 to 2000 ~~kg/cm²~~ ^g and temperature range from 100 to 300°C remain unchanged. This is shown by the very close similarity of the traces of sepiolite (Fig.2, ^A a-d) and of palygorskite