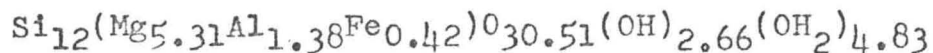


and of sepiolite, on the basis of anion  $(\text{Si}_{12}\text{O}_{30})^{12-}$ :



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 <sup>of</sup> diffractometer URS-50 I, ~~using~~ <sup>using</sup> 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/cm<sup>2</sup>~~ <sup>kg/cm<sup>2</sup></sup> 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<sup>A</sup>, a-d) and of palygorskite