

- 9) Rise in pressure because of massive decomposition of methylcyclopentane
- 10) Dark thick liquid, large amount of carbonaceous residue
- 11) about

Table 3 gives results of the study of the thermal decomposition of methylcyclopentane at 450° and 700-750 atm in experiments of varying duration. The last column of the Table gives the value for the rate const of the process under investigation, calculated from the equation for monomolecular reactions:

$$\dots\dots R.p. \ 989$$

when (100-x) is the content of methylcyclopentane in the reaction products (as % of the initial value), at moment τ . As can be seen in Table 3, the value of K is const within exptl. error.

Table 3. Decomposition of Methylcyclopentane at 450° at 700-750 atm of Hydrogen Pressure.

(key)

- 1) Expt. No.
- 2) Time (hrs)
- 3) Yield of liquid products (% of the charge)
- 4) Total
- 5) Residue, boiling above 80°
- 6) K, hrs⁻¹
- 7) Average
- 8) Corrected for 2 g loss on charging the reactor