either the dimers, or of higher polymers formed according to equation (1).\*

Thus, ultra-high pressure not only accelerates the polymerization of unsaturated hydrocarbons and shifts the polymerization skunnakurated equilibrium in the direction of formation of higher mol. wt. polymers, but it can lead to a substantial alteration in the chemical structure of the polymers.

It should be noted that the combination of ultra-high pressure (23,000-27,500 atm), a temp. of 280-300° amd exptl. duration up to 11.5 hours, which we achieved in our work, are herein described in the literature for the first time.

M. D. Pushkinskii and V. A. Kuznetsov assisted in this work.

## LITERATURE CITED

- 1. S. V. Lebedev and E. P. Filonenko, ZhRKhO, <u>57</u>, 127 (1925).
- 2. V. V. Korshak and K. K. Samplavskaya, DAN, <u>59</u>, 497 (1948).
- 6. R. D. Obolentsev, Physical constants of hydrocarbons in liquid fuels and oil (in Russian) 1953.
- 7. M. Kh. Karapet'yants, Chemical thermodynamics (in Russian), 1953, p. 169.
- 8. V. P. Butuzov, M. G. Gonikberg and S. P. Smirnov, DAN, <u>89</u>, 651 (1953).
- 9. ....

<sup>\*</sup>Analogous to the cyclization of isobutylene dimer to form 1,1,3-trimethylcyclopentane /9/.