

Semiconducting properties of polymers with benzene rings

1105

structure, which is equilibrium for each temperature, is reached in a fairly short time. The degree of crystallinity which is achieved depends on the T at which the process takes place, and rises with it

## **CONCLUSIONS**

On the example of PETP and a number of polyamides it has been demonstrated that NMR can be used to study the crystallization of polymers.

Depending on the nature of the crystallization, various different approaches have been suggested for an NMR study of the process. For PETP and the polyamides the processes of crystallization are very different

Translated by V. Alford

## **REFERENCES**

- 1. N. V. MIKHAILOV and V. O. KLESMAN, Dokl Akad Nauk SSSR 91 99, 1953
- 2 V. O. GORBACHEVA and N. V. MIKHAILOV, Vysokomol soyed 7: 28, 1965
- 3 M. INOUE, J. Polymer Sci. Al 2697, 1963
- 4 F. H. MÜLLER and H. MARTIN, J Polymer Sci C6 83, 1964
- 5 A. I. MAKLAKOV and G. G PIMENOV, Vysokomol soyed 7 536, 1965
- 6 A. I. MAKLAKOV, G. G. PIMENOV and V. I. SHEPELEV, Vysokomol soyed 7 1894, 1965
- 7 G. BODOR, Z. GOLLY and A. CALLOW, Sb Khimiya i tekhnologiya polimerov (Collection Chemistry and Technology of Polymers) 1, 13, 1960
- 8 B V VASIL'YEV and O. G TARAKANOV, Vysokomol soyed 6 2189, 1964

## SEMICONDUCTING PROPERTIES OF POLYMERS WITH BENZENE RINGS AND HETERO-ATOMS IN THE MAIN CHAIN\*

A. I Maklakov, L I. Maklakov, G. G. Shamkina, V I. Nikitina and V. M. Bezzubov

Kazan State University, Institute of Organic Chemistry, USSR Academy of Sciences (Received 28 May 1965)

A SERIES of polymers containing benzene rings and imino groups, NH, in the main chain was synthesized and studied in [1-3]

The present work deals with an investigation of the properties and effect of prior treatment on the electrical properties of new polymers with this kind of structure

\* Vysokomol soyed 8 No 6, 1007-1011, 1966