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STUDY USING NMR OF POLYARYLATES DERIVED FROM BISPHENOLS SUBSTITUTED IN THE RING*

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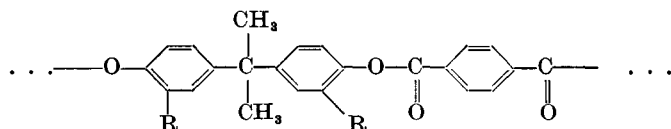
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AS POINTED out previously [1], the physical properties of heat-resistant polymers—polyarylates—have been little studied and require further investigation.

This paper deals with several polyarylates containing CH_3 groups in various combinations from the point of view of evaluating molecular mobility by nuclear magnetic resonance (NMR) and dilatometry.

EXPERIMENTAL

Several polyarylates were studied, of which the repeating unit has the structure:



The structural formulae of secondary radicals R, the designations of the polymers and their characteristics are given in Table 1.

The NMR spectra were observed in a laboratory apparatus with a frequency of 24 Mc/s at temperatures ranging from -196 to 330° as a derivative of the absorption signal. Prior to measurement, the samples were evacuated at 100° and a pressure of 2×10^{-2} mmHg for 2–3 hr and sealed in a glass ampoule.

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