

NATURE AND PROPERTIES OF TETRACYANOQUINODIMETHANE  
COMPLEXES WITH AZOLES

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We have found that molecular complexes ( $\lambda_{\max}$  470 nm) are initially formed in the reaction of tetracyanoquinodimethane (TCQD) with azoles (imidazole, 1-methylimidazole, 3,5-dimethyl- and 1,3,5-trimethylpyrazoles, and 1-methyltriazole) in dioxane. The composition (1:1) was determined dielectrically by the isomolar series method. These complexes acquire ion-radical structures ( $\lambda_{\max}$  744, 760, 845 nm) on standing for 2 days. The formation of an intermediate molecular complex in methylene chloride solutions can be detected only when solutions of the components cooled to  $-80$  to  $-90^{\circ}\text{C}$  are mixed. Ion-radical complexes are formed practically instantaneously at room temperature. Thus the rate of transition of the molecular complex to an ion-radical complex increases as the polarity of the solvent increases and as the temperature rises.

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