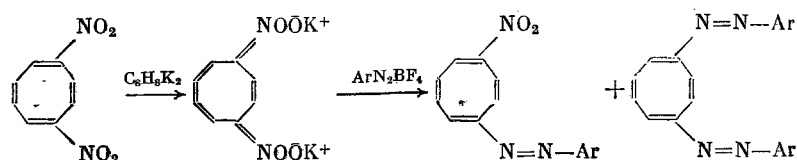


REPLACEMENT OF THE ACINITRO GROUP BY AN ARYLAZO GROUP IN  
1,4-DINITROCYCLOOCTATETRAENE AND 1,8-DINITRONAPHTHALENE  
DIANIONS

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The reaction of 1,4-dinitrocyclooctatetraene and 1,8-dinitronaphthalene with the dipotassium salt of the cyclooctatetraene dianion ( $C_8H_8K_2$ ) leads to the formation of dianions (I) and (II), respectively. Dianions (I) and (II) in THF at  $-10$  to  $-50^\circ C$  react with aryl diazonium tetrafluoroborides  $p-RC_6H_4N_2BF_4$  [ $R = NO_2$ ,  $SCN$ ,  $OCH_3$ , and  $N(CH_3)_2$ ] to form the products of the substitution of the acinitro group by the arylazo group in yields up to 90%. The substitution in dianion (I) affects one or both nitro groups with the formation of the corresponding mono or bisazo derivatives of cyclooctatetraene [only the monoazo derivative was obtained for  $R = N(CH_3)_2$ ].



In all cases, only one nitro group in dianion (II) is substituted, leading to 1-nitro-8-arylazonaphthalenes.

The synthesis of the dipotassium salts of dianions (I) and (II) and monitoring of their formation were carried by analogy to our previous procedure [1]. The structure of the azo dyes obtained was established by PMR, IR, and mass spectroscopy, elemental and x-ray diffraction structural analysis.

#### LITERATURE CITED

1. Z. V. Todres, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1749 (1970).