Synthesis and Study of Properties of the Sulfonaphthylazophenoxyphthalonitrile and Related Phthalocyanine

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Received October 18, 2010

Abstract—The 4-[4'-(5-sulfonaphthylazo)phenoxy]phthalonitrile potassium salt was synthesized by the reaction of 4-chlorophthalonitrile with 5-(4'-hydroxyphenylazo)-1-naphthalenesulfonic acid, and on its basis was obtained tetra-4-[4'-(5-sulfonaphthylazo)phenoxy]phthalocyanine. The products were characterized by elemental analysis, IR and electron spectroscopy. The effect of the introduced substituent on the spectral and other properties of the synthesized compounds was demonstrated.

DOI: 10.1134/S1070363211110235