

COORDINATION COMPOUNDS OF OXOVANADIUM(IV) BASED ON S-METHYLISOTHIOSEMICARBAZIDE AS DYES FOR THERMOPLASTIC POLYMERS

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Abstract. The colouring properties of two coordination compounds previously synthesized by us: 8-(1',2'-naphthyl)-1-R-3-methyl-6-thiomethyl-4,5,7-triazanona-1,3,5,7-tetraenato-1,1'-diolato(-)-O¹, O¹, N⁴, N⁷-vanadyl, where R=CH₃ (**1**), C₆H₅ (**2**) have been investigated. These compounds meet the requirements to be used as dyes for thermoplastic polymers. Colouring complexes have a high photostability (7 points), thermostability (>250 °C) and an intensity of colour, which give a low consumption (0.006 to 0.015 g medium tone, 0.020-0.100 g to 100 g polystyrene intense tone and 0.005 to 0.010 g medium tone and 0.015-0.035 g intense tone for 100 g polyethylene). The investigated compounds stained polystyrene and polyethylene in claret-brick. Compound **2** has a higher thermostability (365 °C) than compound **1** (285 °C).

Keywords: coordination compounds, oxovanadium(IV), dyes, thermoplastic polymer.

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