Crystal Structure and Properties of Tetrakis(tert-butylthio) butatriene Compound

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1,2,3-butatrienes have long attracted organometalic chemists because of their higly unsaturated structure [1]. Since the butatrienes obtained here keep some energy in their skeletons, they must be reactive molecules, and thus their applications to further organic transformations will be interesting subject [2]

The aim of this work is to synthesis [3] and to determine the crystal structure of Tetrakis (tert-butylthio)butatriene compound. Crystal of Tetrakis(tert-butylthio)butatriene was mounted on an Rigaku R-AXIS Rapid-S Diffractometer with a graphite monochromatized MoKα radiation (λ= 0.71073 Å). The structure was solved by direct method with SIR92 [4] and refined with Crystals.

Crystal data: $C_{20}H_{36}S_4$, the compound is monoclinic, space group $P2_1/n$, a=11.061(6), b=10.850(4), c=11.271(6) Å, β=116.427(12)^o, V=1211.51(10)Å^3, Z=4, Dcalc=2.219 g/cm^3, F(000)= 880.00, μ (MoKα)= 7.86.

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