Crystal Structure of Tetrakis(4-chlorophenylthio)butatriene Compound

N.Gülþah Deniz, M.C. Sayil, C. Ibis, *Department of Chemistry, Engineering Faculty, İstanbul University, Avcılar, İstanbul-Turkey.* E-mail: yurdakul@istanbul.edu.tr

Compounds with cumulated double bonds, such as allene or ketene, are fairly reactive because of their strained structures, thus, effective synthesis of these compounds is still challenging in organic chemistry. Construction of three cumulated carbon-carbon double bonds is more difficult problem, and the effective synthetic methods of butatrienes are still very few [1].

The aim of this work is to synthesis [2] and to determine the crystal structure of Tetrakis(4-chlorophenylthio)butatriene compound. Crystal of Tetrakis(4-chlorophenylthio)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 [3] and refined with Crystals.

Crystal data: $C_{28}H_{16}Cl_4S_4$, The compound is monoclinic, space group $P2_1/c$, a=6.9785(8), b=8.6803(9), c=22.884(2) Å, β=93.887(6)^o, V=1383.0(3) Å^3, Z=2, Dcalc=1.495 g/cm^3, F(000)= 632.00, μ(MoKα)=7.47.

[1] Chow H.F., Cao X.P., Leung M.-K., *J.Chem.Soc.,* 1994, **2121**. [2] Roedig A., İbis C., Zaby G., *Chem.Ber*., 1981, **114**, 684. [3] Altomare A., Cascarano G., Giacovazzo C., Guagliardi A., Burla M., Polidori G., Camalli M., SIR92, *J.Appl.Cryst*., 1994, **27**, 435.

Keywords: sulfur compounds, small organic molecules, structures of organic compounds