

A crystallographic study of S-methyl 2-(5-chloro-2-oxoindolin-3-ylidene)hydrazinecarbodithioate

ABSTRACT

S-methyl 2-(5-chloro-2-oxoindolin-3-ylidene) hydrazinecarbodithioate (SM5CIISA) has been prepared from S-methyldithiocarbazate and 5-chloroisatin. The compound crystallized in monoclinic crystal system with space group P 2₁/n, Z = 4, V = 1201.85(7) Å³ and unit cell parameters a = 6.5466(2) Å, b = 7.5056(3) Å, c = 24.6509(8) Å, α = γ = 90° and β = 97.1434(18)°. The crystal structure reveals that the compound exists in the thione form with the chlorine occupies the fifth position in the isatin ring with the bond length of 1.739(2) Å. The 5-chloroisatin moiety is trans with respect to the C3–N2 and C3–S4 bonds whereas the methyl group of the dithiocarbazate moiety is cis with respect to the C3–N2 and C3–S5 bonds.

Keyword: S-methyldithiocarbazate; 5-chloroisatin; Thione