CRYSTAL STRUCTURE OF AN END-ON AZIDO-BRIDGED POLYMERIC ZINC(II) COMPLEX

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A new end-on azido-bridged polymeric zinc(II) complex $[Zn_2ClL(\mu_{1,1}\text{-}N_3)]_n$, where L is the dianionic form of *N*,*N*′-bis(5-fluoro-2-hydroxybenzylidene)-2-hydroxy-1,3-propanediamine, is prepared and structurally characterized by elemental analysis and single crystal X-ray diffraction. The complex crystallizes in the monoclinic space group $P2_1/c$, with unit cell dimensions $a = 9.194(1)$ Å, $b = 22.356(2)$ Å, $c = 9.598(1)$ Å, $\beta = 95.869(3)°$, $V = 1962.5(4)$ Å^3, $Z = 4$, $R_1 = 0.0691$, and $wR_2 = 0.1642$. The inner Zn atom of the $[Zn_2ClL]$ unit is coordinated by the imino N and phenolate O atoms of L and one azido N atom, forming a square pyramidal geometry. The outer Zn atom of the $[Zn_2ClL]$ unit is coordinated by two phenolate O of L, one Cl ligand, and one N atom of the bridging azide group, forming a tetrahedral geometry. The Zn⋯Zn distance in the $[Zn_2ClL]$ unit is 3.072(2) Å. The $[Zn_2ClL]$ units are linked through end-on azido bridges, forming 1D chains running along the *c* axis.

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