

## 二{氧合-二[2-呋喃甲酸二苄基锡 (IV)]}的合成、性质及晶体结构

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**摘要** 以二苄基氧化锡和2-呋喃基羧酸反应,合成了新的化合物二[氧合-二[2-呋喃甲酸二苄基锡(IV)]}。生物活性测试结果表明,该配合物具有较强的体外抗癌活性。X射线单晶衍射测定表明,配合物是以Sn<sub>2</sub>O<sub>2</sub>四元环为中心的、中心对称的二聚体结构,内环锡为六配位的畸变八面体结构,外环锡为五配位的加帽畸变三角双锥结构。

**关键词** [晶体结构](#) [呋喃甲酸 P](#) [有机锡化合物](#) [抗癌药](#) [生物活性](#)

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## Synthesis, Anti-tumour Properties and Crystal Structure of Bis { oxo-bis[ (2-furylcarboxylato) dibenzyltin(IV) ] }

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**Abstract** Bis { oxo-bis [ (2-furylcarboxylato) dibenzyltin (IV) ] } was synthesized by the reaction of 2-furylcarboxylic acid with the (PhCH<sub>2</sub>)<sub>2</sub>SnO. The compound was tested against two human tumour cell lines: MCF-7 and WiDr. The results showed that this compound had higher activities in vitro. The crystal structure was determined by X-ray diffraction study. The compound possesses centrosymmetric dimer structure mode with a four-member central endo-cyclic Sn<sub>2</sub>O<sub>2</sub> unit in which the bridged oxygen atoms are tri-coordinated. Each bridged oxygen atom also connects with an endo-cyclic tin atom. The endo-cyclic tin atoms are six-coordination and have coordination geometry of distorted octahedron. The exo-cyclic tin atoms are five-coordinate and have coordination geometry of monocapped trigonal bipyramid with very similarly distorted mode.

**Key words** [CRYSTAL STRUCTURE](#) [FURAN CARBOXYLIC ACID P](#) [ORGANO TIN COMPOUNDS](#) [ANTICARCINOGEN](#) [BIOLOGICAL ACTIVITY](#)

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