

Organotin adducts of indomethacin: synthesis, crystal structures and spectral characterization of the first organotin complexes of indomethacin.

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The complexes $[\text{Me}_2(\text{Indo})\text{SnOSn}(\text{Indo})\text{Me}_2]_2$, (**1**) $[\text{Bu}_2(\text{Indo})\text{SnOSn}(\text{Indo})\text{Bu}_2]_2$, (**2**), where Hindo is indomethacin, have been prepared and structurally characterized by means of ^{119}Sn Mössbauer, vibrational, and NMR (^1H and ^{13}C) spectroscopy. The crystal structures of the complexes $[\text{Me}_2(\text{Indo})\text{SnOSn}(\text{Indo})\text{Me}_2]_2 \cdot 2\text{C}_4\text{H}_8\text{O}_2$, **3** and **2** have been determined by X-ray crystallography. Each structure is centrosymmetric and features a central rhombus Sn_2O_2 unit with two additional tin atoms linked at the O atoms. Pairs of tin atoms are bridged by bidentate carboxylate ligands and by a monoatomic bridging oxygen. $\text{C-H} \rightarrow \pi$, $\pi \rightarrow \pi$, stacking interactions, inter and intramolecular hydrogen bonds stabilize the structures **2** and **3**. Complexes **2** and **3** are self-assembled via $\pi \rightarrow \pi$, $\text{C-H} \rightarrow \pi$ and stacking interactions. The complexes $[\text{Me}_2(\text{Indo})\text{SnOSn}(\text{Indo})\text{Me}_2]_2$, (**1**) $[\text{Bu}_2(\text{Indo})\text{SnOSn}(\text{Indo})\text{Bu}_2]_2$, (**2**), where Hindo is indomethacin, have been prepared and structurally characterized by means of ^{119}Sn Mössbauer, vibrational, and NMR spectroscopy. The crystal structures of the complexes $[\text{Me}_2(\text{Indo})\text{SnOSn}(\text{Indo})\text{Me}_2]_2 \cdot 2\text{C}_4\text{H}_8\text{O}_2$, **3** and **2** have been determined by X-ray crystallography. Complexes **2** and **3** are self-assembled via $\pi \rightarrow \pi$, $\text{C-H} \rightarrow \pi$ and stacking interactions.

Słowa kluczowe

Indomethacin, Diorganotin, Crystal structures, Spectroscopic studies

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