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## Structural properties and topological diversity of new ORGANOTIN(IV) coordination compounds

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Organotin(IV) coordination compounds have been the subject of interest for some time due to their properties, structural aspects and potential biomedical, environmental and commercial applications. A new series of coordination compounds with different organotin(IV) subunits as nodes and organic bridging ligands as spacers were prepared. The combination of organotin(IV) building blocks with O- and N-donor ligands resulted in the formation of new extended structures with 0D, 1D (an example is given in figure-1), 2D and 3D dimensionalities and interesting topologies. The influence of the nature of organotin(IV) nodes and the bridging ligands on the structural properties of the new systems obtained was investigated. All the synthesized compounds have been characterized by elemental analysis, standard spectroscopic techniques (FTIR, UV-Vis-NIR, NMR), thermal analysis, as well as by single crystal and powder X-ray diffraction. The ligands, metal precursors and their corresponding organotin(IV) complexes have also been screened for antimicrobial activities.

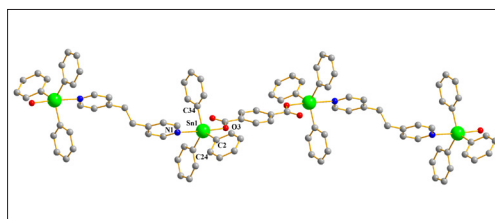


Figure-1: Structure of 1D coordination polymer  $\{(\text{Ph}_3\text{Sn})(\mu\text{-bpa})(\text{Ph}_3\text{Sn})(\mu\text{-tpa})\}_n$ . Hydrogen atoms were omitted for clarity.

### Biography

Delia-Laura Popescu has completed her BS in Chemistry from Faculty of Chemistry, University of Bucharest. She has completed both MS and PhD degrees from the Carnegie Mellon University, Pittsburgh, USA, under the guidance of Professor Terrence J Collins having worked in green chemistry field. She was a Postdoctoral Researcher in Professor Nicolay Tsarevsky's group in the Department of Chemistry at Southern Methodist University, Dallas, USA. She is currently an Assistant Professor in the Department of Inorganic Chemistry at Faculty of Chemistry, University of Bucharest. Her research interests include porous materials (MOFs), supra-molecular hybrid metal-organic materials, poly-nuclear coordination systems with biological properties.

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