Electronic Supplementary Information for Dalton Transactions

Supplemental Information for

The formation of a metalloid $Sn_{10}[Si(SiMe_3)_3]_6$ cluster compound and its relation to the α↔β tin phase transition.

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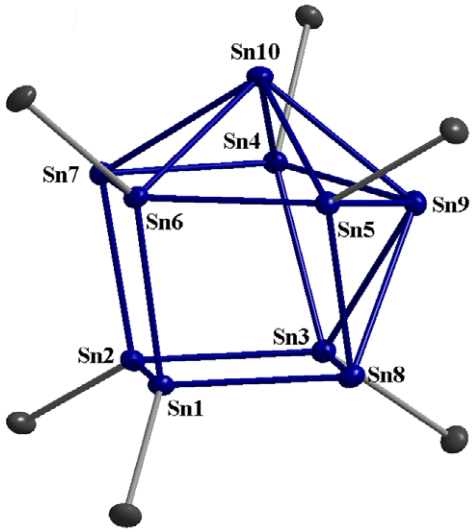
Table S1: Collection of bond distances (min. max. and average [pm]) of the different tin atoms in $Sn_{10}[Si(SiMe_3)_3]_6$ **1** (c.n. = coordination number). In the case of the min./max. bond distances also the bonding partner is indicated (Sn1-Sn6 bear a ligand while Sn7-Sn10 are naked). Place indicates if the tin atoms is located at the cubic (c), the icosahedral (i) or in between (c/i) part of the centaur polyhedron.

	c.n.	Place	min.	max.	av.
Sn1	4	c	285.5 (Sn2)	289.6 (Sn6)	287.7
Sn2	4	c	285.5 (Sn1)	290.9 (Sn3)	288.0
Sn3	5	c	290.9 (Sn2)	303.4 (Sn9)	298.9
Sn4	5	i	292.5 (Sn7)	303.2 (Sn9)	298.7
Sn5	5	i	292.2 (Sn8)	302.1 (Sn10)	296.8
Sn6	5	c	289.6 (Sn1)	304.1 (Sn10)	297.3
Sn7	4	c	287.7 (Sn2)	312.8 (Sn10)	298.7
Sn8	4	c	288.1 (Sn1)	314.2 (Sn9)	298.8
Sn9	5	i	299.4 (Sn5)	314.2 (Sn8)	305.5
Sn10	5	i	298.7 (Sn4)	312.8 (Sn7)	305.2



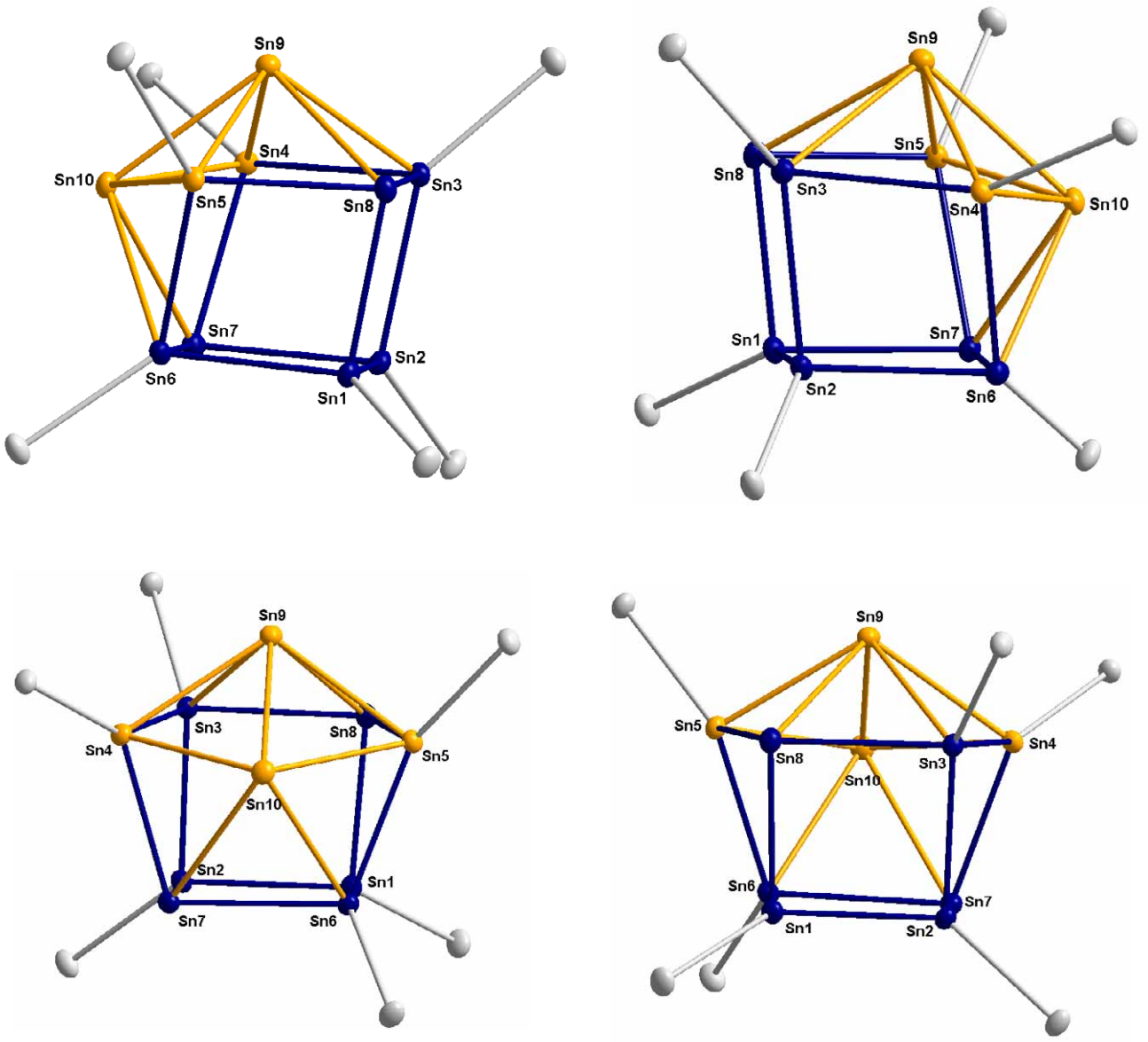


Figure S1: Different views of the centaur polyhedral arrangement of the 10 tin atoms in $Sn_{10}[Si(SiMe_3)_3]_6$ **1** together with the directly bound silicon atoms of the $Si(SiMe_3)_3$ ligands. The cube like part of the centaur polyhedron (Sn1, Sn2, Sn3, Sn6, Sn7, Sn8) is marked in blue while the icosahedral (Sn4, Sn5, Sn9, Sn10) part of the centaur polyhedron is marked in orange.