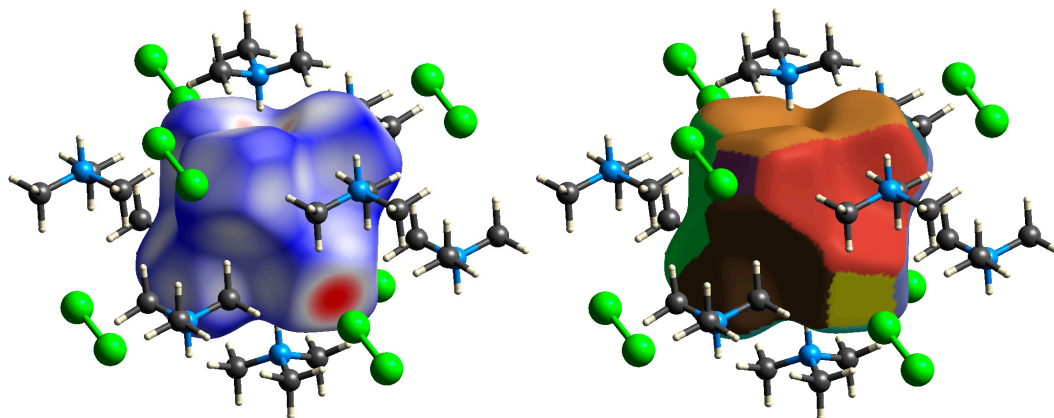


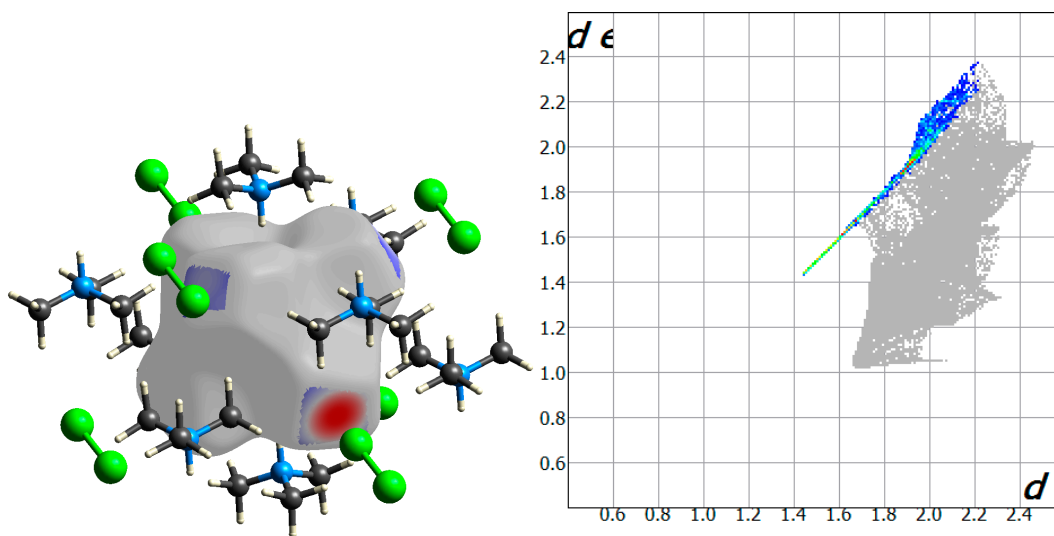
Supplementary Information

Trimethylammonium Sn(IV) and Pb(IV) chlorometalates with incorporated dichlorine

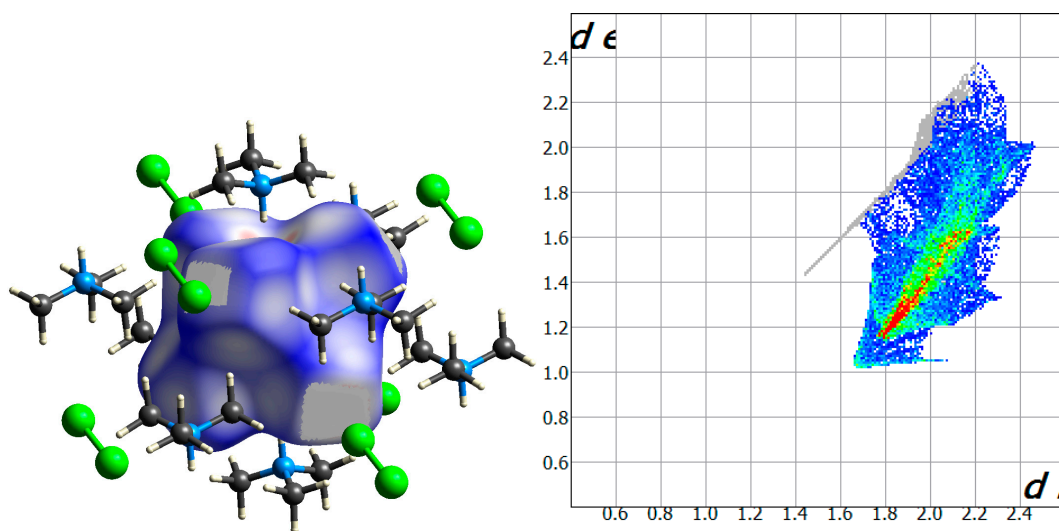
Nikita A. Korobeynikov, Andrey N. Usoltsev, Pavel A. Abramov, Vladislav Yu. Komarov, Maxim N. Sokolov and Sergey A. Adonin



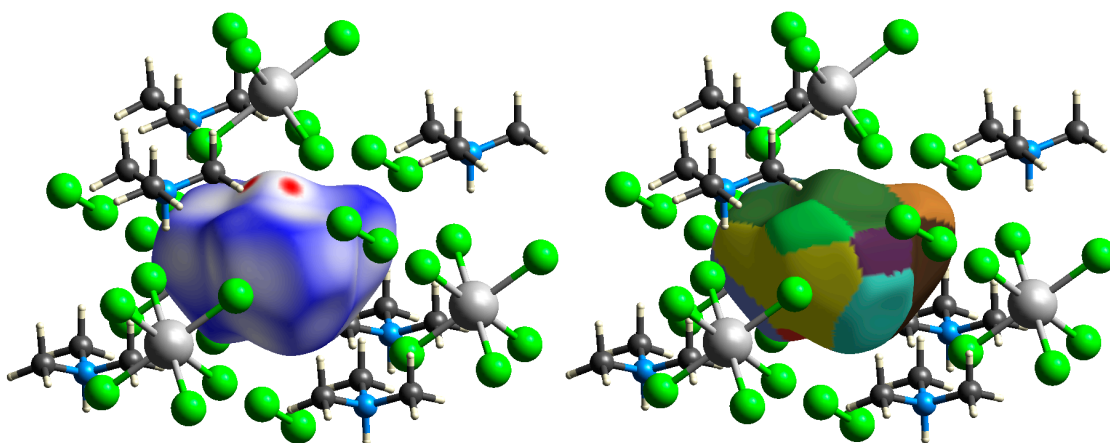
Cl...Cl contacts



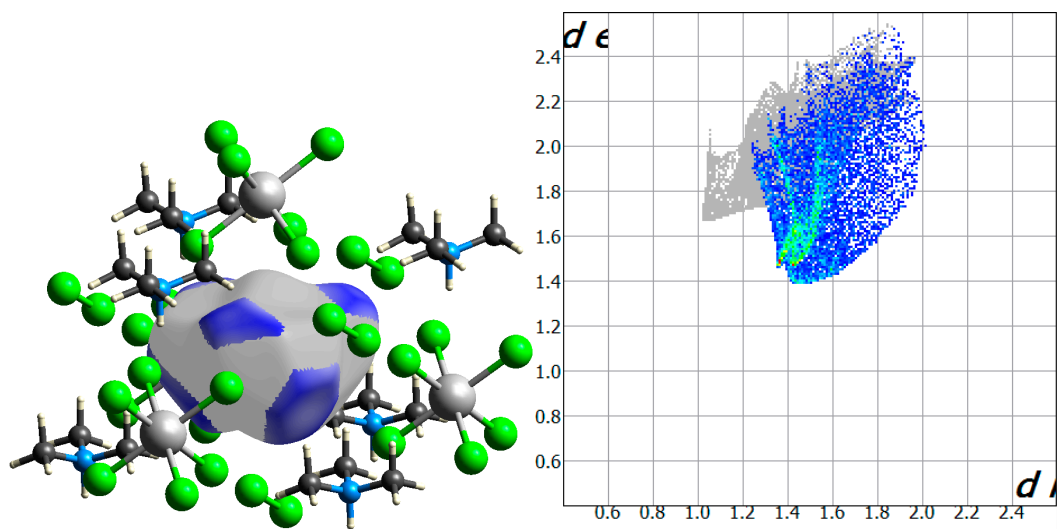
H...Cl contacts



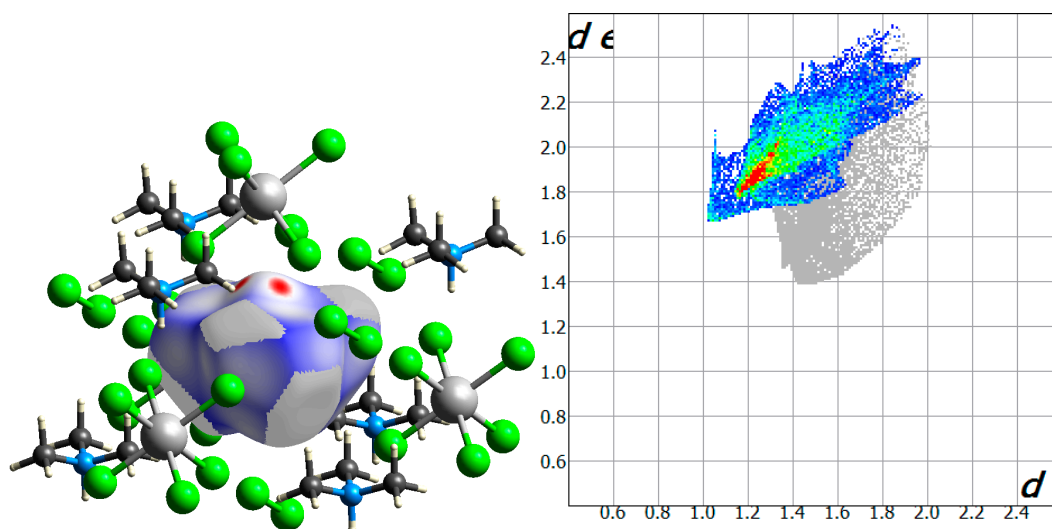
Environment of cation (CrystalExplorer 17.5), Hirshfeld surfaces with d_{norm} mapping and patch fragments



H...H contacts



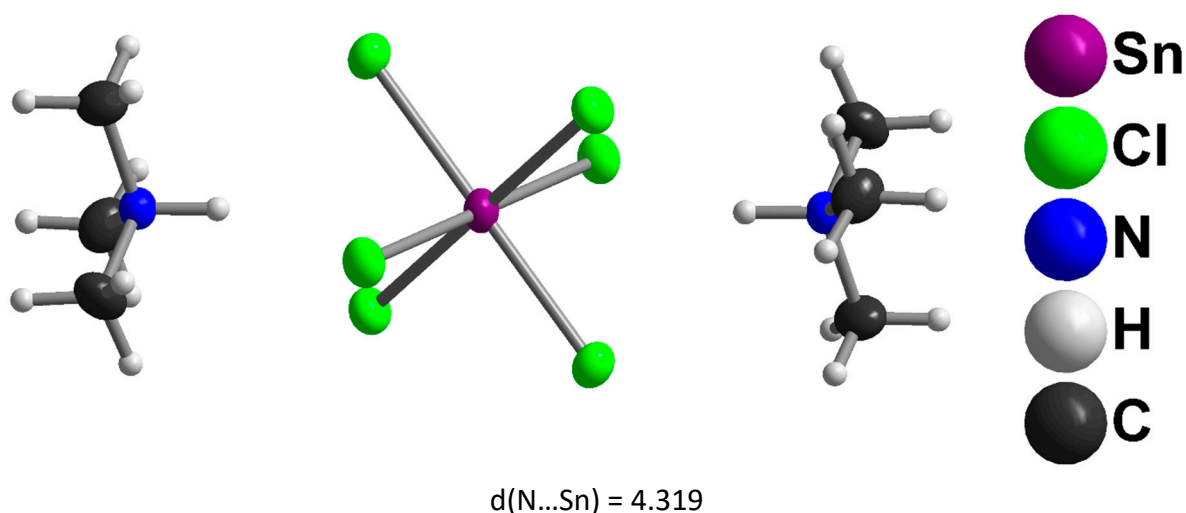
H...Cl contacts

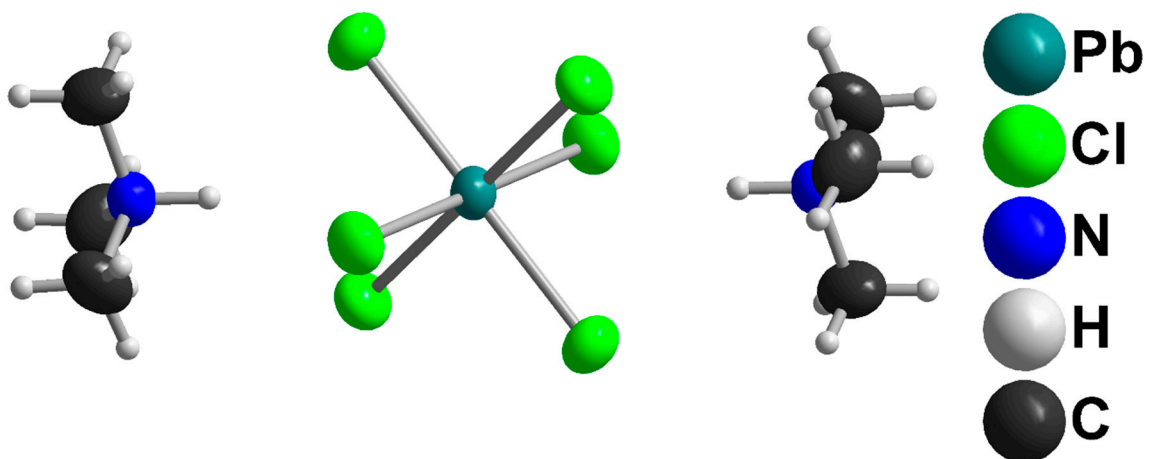


XRD analysis of polycrystals was performed on Shimadzu XRD-7000 diffractometer (CuK-alpha radiation, Ni – filter, linear One Sight detector, 5 – 50° 2 θ range, 0.0143° 2 θ step, 2s per step).

Hirshfeld surface analysis was performed using CrystalExplorer v.17.5 [M. J. Turner, J. J. McKinnon, S. K. Wolff, D. J. Grimwood, P. R. Spackman, D. Jayatilaka and M. A. Spackman, CrystalExplorer17 (2017). University of Western Australia.] for an ordered variant of the crystal structure. Automatic X-H bondlength normalization was used to correct XRD deviations of H atom positions.

Here we can show the difference between intermolecular distances inside the {(Me₃NH)₂[MCl₆] } supramolecular associates presented in the crystal structures of both complexes. This can be illustrated as N...M distance which is 4.319 Å for M = Sn and 4.400 Å for M = Pb.





$$d(\text{N}\dots\text{Pb}) = 4.400$$

Treatment of Cl_2 molecules

