Preparation and Crystal Structure of Tetraperoxo Complexes of Molybdenum (VI) and Vanadium (V)

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Molybdenum and vanadium peroxo complexes have been widely investigated due to their potent catalytic properties in various reactions important for industry and environment. Peroxovanadium compounds have potent biochemical effects (effective insulin mimics, antitumor activity in mice).

In the poster we will present the crystal structures of potassium tetraperoxomolybdate (VI) $K_2[Mo(O_2)_4]$, caesium tetra-peroxomolybdate (VI) $Cs_2[Mo(O_2)_4]$ and lithium tetraperoxovanadate (V) $Li_3[V(O_2)_4]$.

The lattice parameters and space group were determined using PROSZKI package [1]. Structure models were built by using the global optimisation method (FOX program [2]) and refined by the Rietveld method (DBWS [3] and XRS-82 [4] programs).

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