Basic Beryllium *ortho*-Fluorobenzoate and its Mono-hydroxo Derivative

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The preparation of tetraberyllium-μ_4-oxo-hexa[η^2-(*ortho*-fluorobenzoate)] [$Be_4O(o\text{-}C_6H_4F\text{-}COO)_6$, **2**] and tetraberyllium-μ_4-oxo-μ_2-hydroxo-penta[η^2-(*ortho*-fluorobenzoate)] [$Be_4O(o\text{-}C_6H_4F\text{-}COO)_5(OH)$, **3**] from silver *ortho*-fluorobenzoate and $BeCl_2$ in Et_2O/thf solution containing varying amounts of water is reported. The single-crystal structures of **2**·tetrahydrofuran and **3**·Et_2O·2 hexane are discussed in comparison with the structure of the known basic beryllium and zinc carboxylates [$M_4O(RCOO)_6$, M = Be, Zn]. DFT calculations show that lower symmetry has to be expected for Be-based M_4O-framework-type compounds as compared to the corresponding Zn compounds. Compound **2** is a potential precursor for new compounds with MOF substructure motifs.

Key words: Beryllium, Cluster, Aryl-carboxylate, Crystal Structure