

# Darstellung und Kristallstruktur von $[\text{OsFPy}_5][\text{BF}_4] \cdot \text{H}_2\text{O} \cdot \text{CH}_2\text{Cl}_2$

Synthesis and Crystal Structure of  $[\text{OsFPy}_5][\text{BF}_4] \cdot \text{H}_2\text{O} \cdot \text{CH}_2\text{Cl}_2$

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Fluoro-pentakis-pyridine-osmium(II) Tetrafluoroborate, Synthesis, Crystal Structure

In the reaction of  $\text{K}_2[\text{OsF}_6]$  with glycerine and pyridine  $[\text{OsFPy}_5]^+$  (5%) is formed as a by-product which can be separated chromatographically from the main product *trans*- $[\text{OsF}_2\text{Py}_4]$ . The X-Ray structure has been determined on a single crystal of  $[\text{OsFPy}_5][\text{BF}_4] \cdot \text{H}_2\text{O} \cdot \text{CH}_2\text{Cl}_2$  (orthorhombic, space group *Pbca*,  $a = 18.774(5)$ ,  $b = 16.833(3)$ ,  $c = 20.924(6)$  Å,  $Z = 8$ ). Due to the stronger *trans* influence of pyridine as compared to fluorine the Os-N' bond length of 2.06 Å in the  $\text{F}^\bullet\text{-Os-N}'$  axis is shorter than the Os-N distances of the  $\text{OsPy}_4$  base ranging from 2.07 to 2.10 Å.

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