

# **Fe[B<sub>2</sub>P<sub>2</sub>O<sub>7</sub>(OH)<sub>5</sub>]: Ein neues Boro- phosphat mit unverzweigten Vierer-Einfach Tetraederketten**

Fe[B<sub>2</sub>P<sub>2</sub>O<sub>7</sub>(OH)<sub>5</sub>]: A New Borophosphate  
Containing Non-Branched Tetrahedral  
Vierer-Einfach Chains

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Single crystals of Fe[B<sub>2</sub>P<sub>2</sub>O<sub>7</sub>(OH)<sub>5</sub>] were grown under hydrothermal conditions at 170 °C. The crystal structure (monoclinic, C 2/c (Nr. 15),  $a = 1774.7(5)$ ,  $b = 672.0(2)$ ,  $c = 705.9(2)$  pm,  $\beta = 109.01(2)^\circ$ ,  $Z = 4$ ,  $D_x = 2.808$  g/cm<sup>3</sup>) contains vierereinfach tetrahedral chains  $\frac{1}{\infty}[\text{B}_2\text{P}_2\text{O}_7(\text{OH})_5]^{3-}$ , which are formed by alternating borate and phosphate groups connected via common corners:  $\frac{1}{\infty}[\text{BO}_{2/2}(\text{OH})(\text{OH}_{0.5})\text{-PO}_{2/2}\text{O}(\text{OH})\text{-BO}_{2/2}(\text{OH})\text{-}(\text{OH}_{0.5})\text{-PO}_{2/2}\text{O}(\text{OH})]$ . Fe<sup>3+</sup> is in an octahedral coordination (Fe(O)<sub>2</sub>(OH)<sub>4</sub>).

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