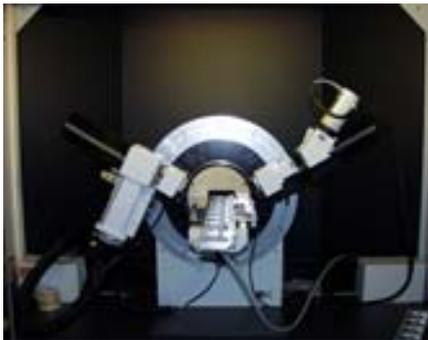


Methods, IGW, Müller-Sigmund

<p>X-ray diffractometer</p> <p><i>XRD, RDA</i></p>	<p>Model: <i>Bruker AXS D8 Advance Powder XRD</i> Unit and Room: <i>Mineralogy, Lab Build., R. 01005</i> Responsible: <i>Isolde Schmidt (Dr. Hiltrud Müller-Sigmund)</i> Further information: <i>http://www.minpet.uni-freiburg.de/englisch/analytik/rda.html</i></p>	<p><i>Bruker AXS D8 Advance Powder XRD Mineralogy, Lab Build., R. 01005 Isolde Schmidt (Dr. Hiltrud Müller-Sigmund)</i> <i>http://www.minpet.uni-freiburg.de/englisch/analytik/rda.html</i></p>
<p>Short Description:</p> <p>XRD allows the identification and characterization of crystalline phases from a finely grained powder (< 40 nm).</p> <p>Available Experiments/Techniques:</p> <ul style="list-style-type: none"> - identification of mineral and mineral mixtures - crystallographic structure - chemical composition - physical properties of materials and thin films 	<p>Picture of the Equipment</p> 	
<p>Special Equipment:</p> <ul style="list-style-type: none"> - variable width slits - 2.2 kW Cu X-ray source - Sample changer for 8 samples - DIFFRACplus software - Silicon monocrystal sample holders 		
<p>Measurements on the equipment are currently done by:</p>	<p><input type="checkbox"/> Students <input type="checkbox"/> Students after Introduction <input checked="" type="checkbox"/> Students after extensive training <input checked="" type="checkbox"/> Trained scientific service personal</p>	
<p>Recent Publications, where this instrument was important (optional): Give citation</p>	<p>Ackermann S. 2009: Thermodynamic and crystallographic properties of kornelite ($\text{Fe}_2(\text{SO}_4)_3 \cdot 7.75\text{H}_2\text{O}$) and paracoquimbite ($\text{Fe}_2(\text{SO}_4)_3 \cdot 9\text{H}_2\text{O}$). <i>American Mineralogist</i> 94, 1620-1628.</p>	
<p>Typical problems that may be solved with this instrument:</p>	<p><i>identification of unknown minerals, specification of crystallographic parameters..</i></p>	