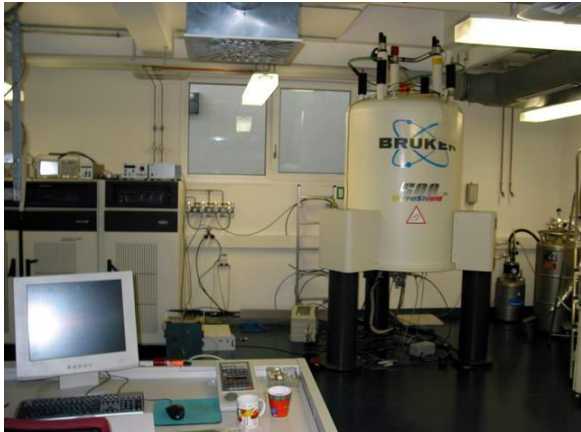


Methods, IMC, Mülhaupt

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|---|---|--|
| <p style="text-align: center;">500 MHz NMR Spectrometer</p> <p style="text-align: center;"><i>solid -state NMR spectroscopy</i></p> | <p>Model: <i>Bruker Avance DRX 500</i> Unit and Room: <i>-2.012</i> Responsible: <i>Dr. Ralf Hanselmann 203 6294</i></p> <p>Further information: <i>http://portal.uni-freiburg.de/makrochemie/zentrein/servicegroup/nmr</i></p> | |
| <p>Short Description:</p> <p>500 MHz Bruker solid-state NMR Spectrometer controlled by Avance console for double resonance experiments. Equipped with xyz-gradient system for diffusion/imaging.</p> | <p style="text-align: center;">Picture of the Equipment</p>  | |
| <p>Available Experiments/Techniques:</p> <p>static solid state NMR</p> <p>one- and two-dimensional solid-state MAS NMR (2.5 mm and 4 mm double resonance 1H/31P-15N)</p> <p>Pulsed field gradient diffusion NMR (1H/2H/7Li)</p> | | |
| <p>Special Equipment:</p> <p>static probe with servo motor for fast angle switching and rotation, diffusion and micro-imaging probe, modified cooling circulator for variable temperature measurements.</p> | | |
| <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>Macromolecular Rapid Communications, 30, 615 (2009) Inorganic Chemistry, 48, 2166 (2009)</p> | |
| <p>Typical problems that may be solved with this instrument:</p> | <p>- <i>chemical shift resolution in solids</i></p> <p>- <i>molecular dynamics and orientation</i></p> <p>- <i>local structure in solids, also non-crystalline materials</i></p> <p>- <i>ion diffusion in condensed matter</i></p> | |