

# Chair of Inorganic Chemistry I – Equipment Synthesis

## Professor Dr. Josef Breu

Equipment	Type	Characteristics	Advisor
2 gloveboxes	MBraun LabMaster 130	Ar-atmosphere O <sub>2</sub> < 2 ppm H <sub>2</sub> O < 0,3 ppm	Puchtler
Diverse Schlenk equipment	built in-house	Ar, N <sub>2</sub>	Puchtler
4 chamber furnances	Nabertherm	T <sub>max</sub> : 1000°C	Puchtler
2 chamber furnances	Thermal Technology	T <sub>max</sub> : 1100°C T <sub>max</sub> : 1280°C	Puchtler
Tube furnace	Carbolite MTF 12	T <sub>max</sub> : 1100°C	Puchtler
Tube furnace	Thermal Technology	T <sub>max</sub> : 1300°C	Puchtler
Tube furnace	Thermal Technology	T <sub>max</sub> : 1600°C	Puchtler
3-zone-tube furnace	Thermal Technology	T <sub>max</sub> : 1100°C	Puchtler
Graphite furnace with rotating kiln	Linn High Therm HT 1900	T <sub>max</sub> : 1900°C Ar-atmosphere	Puchtler
High frequency furnace	Hüttinger TIG 20/300	20kW, inductive heating up to 2100°C	Puchtler
High frequency furnace	Hüttinger BIG 40/100	20kW, inductive heating up to 2100°C	Puchtler
High frequency furnace	Linn High therm HTG 1500/0,5	1,5 kW, inductive heating up to 1200°C	Puchtler
Skull melting unit	Surface Net with HF-generator Hüttinger IG 10/600	crucible free melting pressure reactor λ-probe	Puchtler
Fully-automated lab reactor system	Mettler Toledo	2 pressure reactors (6 & 60 bar) 2 online-measurement modules (concentration u. particle analytics)	Martin