

# Technology, Pharma

## Synthesis of microporous and mesoporous materials

### Summary

Berghof reactors are ideal for syntheses of microporous and mesoporous materials. Depending on the application, Berghof offers reactors that are suitable for hydrothermal syntheses only or reactors that are suitable for both sol-gel synthesis and hydrothermal synthesis. Please note: when using a reactor for both sol-gel synthesis and hydrothermal synthesis, it is mandatory that neither the **gas nor the liquid phase is corrosive**. Furthermore, this reactor has to be equipped with PTFE liners and, if necessary, with a septum port or a dosing pump.

### Examples for Equipment for Hydrothermal Synthesis (gas and liquid phase may be corrosive)

Equipment	Reactor	Heating instrument	Berghof controller
	DAB-2	DAH	BTC-1000
	DAB-3	DAH	BTC-1000
	DAB-3XXL	DAH	BTC-1000
	DB-300	BHM or BTM	BTC-1000
	DB-500	BHM or BTM	BTC-1000
	DB-700	BHM or BTM	BTC-1000
	DB-1000	BHM or BTM	BTC-1000
	DB-1500	BHM or BTM	BTC-1000
	DB-2000	BHM or BTM	BTC-1000

### Examples for Equipment for both Sol-gel Synthesis and Hydrothermal Synthesis (gas and liquid phase may not be corrosive, reactors require PTFE liners and, if necessary, with a septum port or a dosing pump)

Equipment	Reactor	Heating instrument	Berghof controller	Stirring available
	BR-100	BLH/BAH	BTC-3000	via hot plate
	BR-200	BLH/BAH	BTC-3000	via hot plate
	BR-300	BLH/BAH or BHM or BTM	BTC-3000	via hot plate or magnetic drive
	BR-500	BHM or BTM	BTC-3000	via magnetic drive
	BR-1000	BHM or BTM	BTC-3000	via magnetic drive

**Note:** This application serves only as a guide line and may need to be optimized for your sample.

