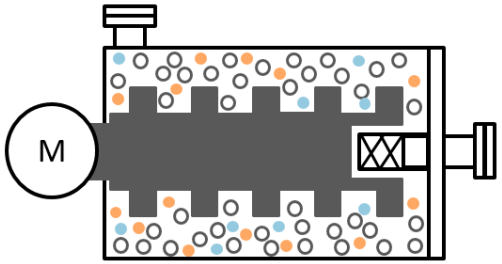
Experimental investigations on grinding processes of multi-component systems in stirred media mills

iPAT
Institut für Partikeltechnik

Bachelor-, studies-, master thesis



Grinding processes play an important role in industry for the processing and production of a wide variety of materials and products. While the grinding of individual materials has already been extensively investigated experimentally and also theoretically, there are still numerous unanswered questions regarding the grinding of material mixtures, so-called **multi-component systems**: How do the mechanical properties of the materials influence the process? Is it possible to selectively grind a single component by choosing suitable process parameters while the other component remains intact? How can the comminution processes be optimized in terms of **energy efficiency**? All these points are being considered in a current research project and can be investigated experimentally as part of a thesis. The following **main topics** can be examined in more detail:

- Literature search
- Establishment of methods for particle size measurements
- Execution of grinding experiments with a stirred media mill
- Production of composite particles
- Adaption and modification of modeling approaches

Contact:

Max Tobaben
Tel.: 0531-391-9607
m.tobaben@tu-braunschweig.de

Technische Universität Braunschweig