



Hosokawa Micron's NanoCreator FCM-Mini for Continuous Synthesis of Nano Sized Metal Oxides

Hosokawa Micron Ltd announce the launch of the NanoCreator FCM-Mini, a continuous nano-particle production system for metal oxides. High purity particles are created by the build up method that allows particles to be adjusted from a few nm to a few hundred nm. The NanoCreator FCM-Mini is able to create single component particles or multi-metal oxide components.

Raw material, in solution is fed together with the reaction gas into the reactor. The raw material is then vaporised and nano particles are generated by a chemical reaction within the gas phase with the assistance of a flame. The critical step of the process is to collect the nano particles by rapid quenching before the occurrence of any grain size growth or particle agglomeration appears.

The system can produce nano particles consisting of multi-components with three structural patterns; core shell type, solid solution type and finely dispersed type. In principle these patterns are formed depending on raw materials and their concentrations during the particle formation. The ratio of individual components can be widely varied to optimise the quality of the final products

Competitively priced for customer entry into nano material production, the NanoCreator FCM-Mini produces nano particles at a rate of 1-10g powder per 30 minutes, depending on the type of metal oxide and the particle size requirements.

Easy to disassemble for cleaning purposes and space saving at 900mm x 1300mm x 1800mm (height) the FCM-Mini is simple to operate. Larger models for production purposes are also available in the FCM-Lab, FCM-400 and FCM-800, with production capabilities of up to 5.0kgs/h.