

Consideration of Grinding Characteristics on Particle Size and Grinding Consumption Energy by Stirred Ball Mill

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A series of wet grinding experiments have been carried out using a stirred ball mill to systematically investigate consideration of grinding characteristics. The particle size distribution and median diameter of the grinding consumption power for a given grinding time were considered. Also, the effect of grinding aids on particle size and grinding consumption energy defined as the summation of grinding power was investigated. The grinding aids had influence on the smaller products size and decrease grinding consumption energy because the function of grinding aids were to be attribute to the prevention of agglomeration and ball and grinding chamber wall coating of sample powder. The grinding process seemed to be controlled by the force of agglomeration of the ground products. It was demonstrated that the particle size and grinding consumption energy could be more decreased by addition of grinding aids.