

## The grinding behavior of aluminum powders with carbon nano tube

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A series of batch type grinding experiments in a ball mill were carried out on aluminum powder with added carbon nanotubes (CNTs) as grinding aids. These were done to determine if the addition of CNTs affect grinding behavior. The CNT powders produced a smaller products size and a better dispersion of the ground powder because the CNTs function prevent the agglomeration and ball coating of aluminum powder. These results can have relationship to make CNT composite materials in general. The dry grinding behavior of aluminum powder has been investigated in a ball mill with respect to the effect of the addition of CNTs addition as grinding aids. The important thing in Al-CNT composites is controlling the agglomeration of composite particles by addition of CNTs. The experimental result was considered in terms of the particle size distribution and particle agglomeration behavior of the ground products. In this study, the CNT powder produced smaller product sizes and a better dispersion of the ground powder because the function of CNTs as grinding aids can be attributed to the prevention of agglomeration of alumina powder.