

Comparative study on particle Morphology Behavior for Copper -CNT Composites during dry grinding process with various type ball mills

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Recently, study for metal powder and Carbon nanotube composites are investigated by a lot of researcher. When it used CNT in metal and carbon nanotube composite, the strong points is to decrease wear resistance, increase impact strength, increase heat conduction and increase hardness. We studied the comparative on particle morphology behavior for Cu/CNT composites during dry grinding process with various type ball mills. Powder morphology behavior is compare by SEM, XRD, PSA. The characteristic of composites were investigated about hardness and density. We examined the characteristics of various type ball mills and standardized the rotation distance of traditional ball mill, stirred ball mill and planetary ball mill. Also, we studied particle morphology behavior, which was changed from massive type to spherical type by traditional ball mill and planetary ball mill with increase of milling time. Regardless of the type of equipment, all particle size increased when milling time increased.