

## Particle Morphology and Size Change for Nano Composites based on Metal by 3 kinds of Ball Mills on Various Experimental Conditions

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Recently, many researchers have studied the nano-composite based on metal, because nano-composite has the very high chemical, physical and mechanical properties. Furthermore it has the highest electrical conductivity of some metal and it's the very important copper alloy brass and bronze. This study was investigated particle morphology and size distribution behavior for metal powders nano-composites during dry grinding process with various type ball mills. Powder property behavior is compares by SEM, XRD, PSA. We found that the morphology of copper powder was changed from plate type to spherical type for optimum experimental conditions as 1 mm ball and high speed level of revolution speed with increase of grinding timer. In addition, the particle size distribution behavior was changed with changing with experimental conditions for the various types ball mills.