

## CNT/Cu powder mixture의 SPD공정시 치밀화 해석

## The densification analysis of CNT/Cu powder mixture during severe plastic deformation

Chungnam national university

\*Pham Quang, Seung Chae Yoon, Hyung Seop Kim

Carbon nanotubes (CNTs) have been the subject of intensive study for applications in the fields of nanotechnologies in recent years due to their superior mechanical, electric, optical and electronic properties. Because of their exceptionally small diameters (several nm) as well as their high Young's modulus (1 TPa), tensile strength (200 GPa) and high elongation (10-30%) in addition to a high chemical stability, CNTs are attractive reinforcement materials for light weight and high strength metal matrix composites. Although extensive research has been performed on its electrical, mechanical and functional properties, there are not many successful results on the mechanical properties of CNT dispersed nanocomposites. In this study, it investigated the consolidation and densification properties of CNT/Cu nano composite simulation.