Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

An NMR study of homogenous deformation-induced ordering in $La_{50}Ni_{15}Al_{35}$ MAGDALENA SANDOR, YUE WU, HAIBO KE, WEI HUA WANG — The mechanism of mechanical deformation is currently an unresolved issue of fundamental importance. ^{27}Al NMR nutation experiments in $La_{50}Ni_{15}$ Al_{35} bulk metallic glasses (BMG) were carried out to probe local structural changes induced by elastostatic compression at room temperature. It was observed that compression enhances local symmetry at Al sites with compression time. Modulated differential calorimetry studies were also performed to understand how free volume changes with compression time. Results provide insight into the nature of homogenous deformation and the interplay of free volume with local structural changes.

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Date submitted: 15 Nov 2010 Electronic form version 1.4