Crystallization and Indentation Characteristics of $Ce_{75}Al_{23}Si_2$ Metallic Glass

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The glass-forming ability and indentation characteristics of melt-spun $Ce_{75}Al_{23}Si_2$ metallic glasses have been investigated. $Ce_{75}Al_{23}Si_2$ metallic glass was annealed at different temperatures. After each treatment, X-ray diffraction (XRD), scanning electrical microscope (SEM) and microindentation data was acquired. The Scanning Electron Microscopic (SEM) images led us to conclude Si would gather after annealing. XRD data shown the $Ce_{75}Al_{23}Si_2$ metallic glass was crystalline after annealing. This allowed for exploring the relationship between annealing temperature and hardness.