

**Mechanical Properties and Microstructures of Mg-Li Alloys
Containing Sc and Be**

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Abstract

An unprecedented try of adding Sc and Be elements into Mg-Li alloys in order to enhance their strengths has been carried out and the results will be presented. Four Mg-Li alloys; a bare one (11%Li-1%Al-0.5%Zn), the second with Sc, the third with Be and the fourth with both Sc and Be were prepared by vacuum melting processes. They were then homogenized at 350 °C, followed by an extrusion for plates. Microstructures and mechanical properties are studied on this as-extruded sample and those subsequently receiving various rolling reductions.

Keywords: magnesium lithium alloys, beryllium, scandium