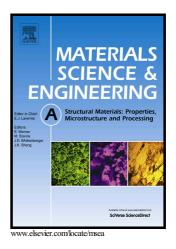
### Author's Accepted Manuscript

Improving the room-temperature formability of a magnesium alloy sheet by texture control

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PII:S0921-5093(18)30442-8DOI:https://doi.org/10.1016/j.msea.2018.03.084Reference:MSA36277

To appear in: Materials Science & Engineering A

Received date:9 January 2018Revised date:20 March 2018Accepted date:20 March 2018

Cite this article as: Se-Jong Kim, Changjoon Lee, Jamyeong Koo, Jinwoo Lee, Young-Seon Lee and Daeyong Kim, Improving the room-temperature formability of a magnesium alloy sheet by texture control, *Materials Science & Engineering A*, https://doi.org/10.1016/j.msea.2018.03.084

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## Improving the room-temperature formability of a magnesium alloy sheet

### by texture control

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#### Abstract

In this study, a sheet of AZ31 magnesium alloy was compressed by 3%, 5%, and 7% along the in-plane direction while simultaneously applying a compressive load in the normal direction (ND) to avoid buckling during compression. Changes in the microstructure and texture were measured after annealing. Recrystallization and grain growth occurred in grains with higher deformation energy than surrounding grains after annealing at 300 °C. The area fraction of the orientations for which the *c*-axis and transverse direction (TD) are parallel (twinned grains) and the orientations with an angle between the *c*-axis and ND ranged from

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