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**ENHANCEMENT OF MECHANICAL PROPERTIES OF SEVERELY-DEFORMED
AL-MG-MN ALLOY BY COLD ROLLING**

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In the present study, the effect of cold rolling on microstructure and mechanical properties of severely-deformed AA5083 aluminum alloy was studied. The severely deformed material was produced by equal-channel angular pressing (ECAP) applied at 300 °C to true strain of ~12 and subsequent water quenching. This resulted in fully recrystallized equiaxed structure with an average size ~1 μm. To provide a further enhancement of mechanical properties, the produced material was subjected to conventional plane rolling at ambient temperature to a total thickness reduction of 80%.

The microstructure and mechanical properties of the obtained cold rolled sheets are studied.

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