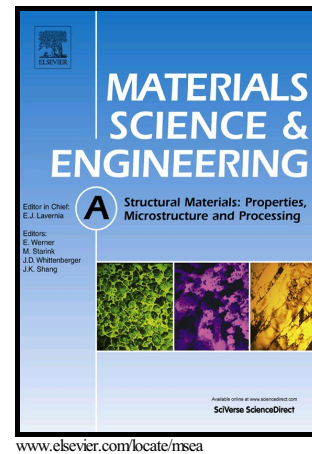


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Strengthening of A2024 alloy by high-pressure torsion and subsequent aging

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An age-hardenable A2024 alloy is processed by high-pressure torsion (HPT) for grain refinement and further aged for fine precipitation. The HPT is conducted under an applied pressure of 6 GPa for 0.75, 1 and 5 turns with a rotation speed of 1 rpm at room temperature and this results in a significant grain size reduction to a grain size of ~240±80 nm. The hardness sharply increases with imposing strain at an early stage but

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