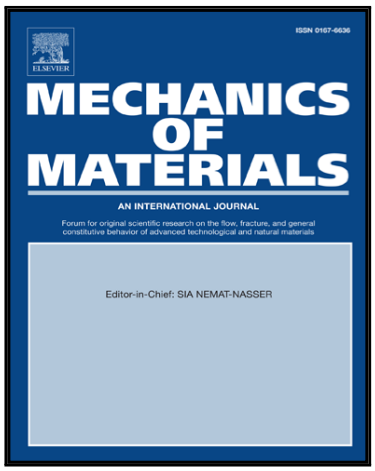


# Stress relaxation behavior of an aluminium magnesium silicon alloy in different temper condition

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**Highlights**

- Activation volume in the presence of semi-coherent β" precipitates is significantly lower compared to other microstructural features.
- Effective stress is almost two times higher in the presence of semi-coherent β" precipitates compared to other microstructural features.
- Exhaustion rate of mobile dislocation density is negligible in the over-aged sample compared to solutionized and peak-aged sample.
- Relaxation strain is higher in the presence of semi-coherent β" precipitates compared to other microstructural features.