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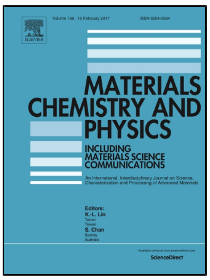

Si-induced precipitation modification and related age-hardening response of an Al–4Mg–1Cu–0.5Si alloy

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Highlights

- Precipitation microstructure is highly sensitive to Si content in the solid solution.
- A small increase of Si content effectively promotes the formation of fine GPB zones in a high density.
- Also, it kinetically postpones the transformation to S phase during ageing at 200 °C.
- The high number density of GPB zones produces accelerated age-hardening response.