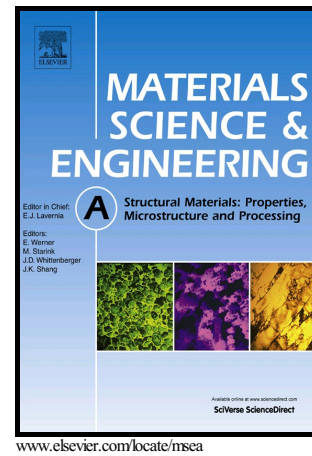


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Managing Both Strength and Ductility in Duplex Stainless Steel with Heterogeneous Lamella Structure

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Abstract

A commercial 2507 duplex stainless steel with heterogeneous lamella structures was prepared by cold-rolling and appropriate annealing. A yield strength of 800 MPa, a tensile strength of 1000 MPa and a uniform elongation of 20% were achieved in the sample after 90% cold rolling following by annealing at 900°C for 1 min. The origin of the excellent

¹ Authors' contributions: G. Wu and X. Huang designed the experiments. L. Xie, T. Huang and L. Zhang did the experiment and analysed experimental data. W. Cao provided the material. L. Xie, G. Wu and X. Huang wrote the manuscript. All authors contributed the discussions.

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