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Record 1 of 1**Author(s):** Horing, S (Hoering, S.); Abou-Ras, D (Abou-Ras, D.); Wanderka, N (Wanderka, N.); Leitner, H (Leitner, H.); Clemens, H (Clemens, H.); Banhart, J (Banhart, J.)**Title:** Characterization of Reverted Austenite during Prolonged Ageing of Maraging Steel CORRAX**Source:** STEEL RESEARCH INTERNATIONAL, 80 (1): 84-88 JAN 2009**Language:** English**Document Type:** Article**Author Keywords:** Corrax; reverted austenite; EBSD; 3-dimensional atom probing; TEM**KeyWords Plus:** STAINLESS-STEEL; PRECIPITATION; BEHAVIOR**Abstract:** Microstructure and mechanical properties were studied in CORRAX maraging steel during prolonged ageing up to 300 h at 798 K. Strengthening of maraging steel was caused by the formation of an intermetallic phase enriched in Ni and Al which exhibits an ordered B2 (CsCl) superlattice structure. Precipitation hardening was accompanied by an increase in micro-hardness with peak hardness after about 12 h of ageing. After 300 h of ageing, the micro-hardness value is still high, corresponding to 94% of the peak hardness. The reverse transformation of martensite to austenite does not take place during prolonged ageing as shown by X-ray and electron backscatter diffraction analyses. The experimentally determined amount of austenite (1-2 vol.%) is in good agreement with the calculated value (about 2.5 vol.%).**Addresses:** [Hoering, S.; Abou-Ras, D.; Wanderka, N.; Banhart, J.] Helmholtz Ctr Berlin, D-14109 Berlin, Germany; [Leitner, H.; Clemens, H.] Univ Min & Met Leoben, Dept Phys Met & Mat Testing, A-8700 Leoben, Austria**Reprint Address:** Horing, S, Helmholtz Ctr Berlin, Glienickestr 100, D-14109 Berlin, Germany.**Cited Reference Count:** 14**Times Cited:** 2**Publisher:** VERLAG STAHLLEISEN MBH**Publisher Address:** SOHNSTRABE 65, D-40237 DUSSELDORF, GERMANY**ISSN:** 1611-3683**29-char Source Abbrev.:** STEEL RES INT**ISO Source Abbrev.:** Steel Res. Int.**Source Item Page Count:** 5**Subject Category:** Metallurgy & Metallurgical Engineering**ISI Document Delivery No.:** 407PE[Back to Results](#)ISI Web of Knowledge
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