1. Record Nr. UNISA996213871903316

Titolo	Automotive alloys 1999 / / sponsored by the Light Metals Division (LMD) of the Minerals, Metals and Materials Society (TMS), held during the 1999 TMS Annual Meeting, February 28 - March 4,1999, San Diego, CA ; edited by Subodh K. Das
Pubbl/distr/stampa	Warrendale, Pennsylvania : , : TMS Minerals, Metals & Materials Society, , 1999
ISBN	1-118-78760-9 1-118-78746-3
Descrizione fisica	1 online resource (316 p.)
Altri autori (Persone)	DasS. K
Disciplina	620.118
Soggetti	Alloys Automobiles - Materials Light metal alloys
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Is the aluminum car a fantasy? -- Overview of Doe's programs on aluminum and magnesium for automotive applications -- ALCAR : a model for horizontal R & D consortia -- Innovative aluminum applications for automotive use in europe -- Mechanical surface treatments on high-strength magnesium alloys for fatigue life improvements -- Metallurgical characteristics of conductive heat resistance seam welds on aluminum sheet -- Producing steering wheel frames with an AIMg5Si2Mn-type alloy -- Ductility and formability of automotive AI alloy sheet -- Effect of Si on the ageing behaviour and formability of alloys based on AA6016 -- Microstructural strengthening in AI-Zn-Mg-Cu alloys used in automotive bumpers -- The role of natural aging on subsequent precipitation during the artificial aging of AA6111 aluminum alloy -- A process model for the age hardening of a 319-type aluminum alloy -- Observation of through-thickness deformation bands in an AI6111 alloy deformed in plane strain tension -- Texture evolution of a strip cast AA5XXX aluminum alloy during annealing -- Improvement of hot ductility in AI-Mg base alloys caused by small amounts of additional elements -- Optimised 6XXX aluminum

alloy sheet for autobody outer panels -- Microchemistry and microstructural aspects leading to stress corrosion cracking in AA508 -- Ductility and bendability in 6000 series automotive alloys -- The effect of pre-aging on artificial aging response in Al-Mg-Si-Cu alloy 6111 -- Effects of minor Sc and Zr additions on commercial Al-Mg-Mn alloys -- Age hardening behavior in a commercial 319-type aluminum alloy -- The optimized tensile and fatigue properties of semi-solid 357 and modified 319 aluminum automotive parts -- Mechanisms of soldering in high pressure die casting of Al-11SiCu-Fe alloy -- Fiction stir welding magnesium alloys -- Roll forming technology for manufacturing axisymmetric automotive components - II: application to fabrication of Al V96Ts3 and 295 cast alloy wheels -- Optimisation of the quality of high pressure die cast magnesium alloys -- High-cycle fatigue crack initiation site distribution in A356.2.

Sommario/riassunto

A discussion of the most recent developments in aluminum and magnesium alloys application in the automotive market, these proceedings cover physical and process metallurgy of aluminum and magnesium castings, extrusions, composites, and sheet; alloy processing; structure and properties characterization; commercial and pilot applications in the automotive market; and technology and performance.