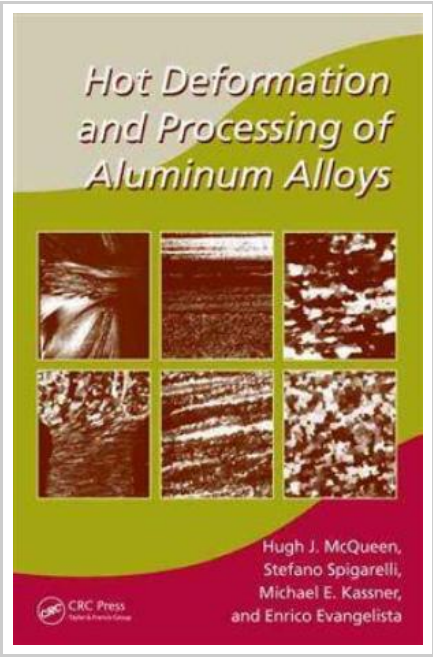

Hot Deformation and Processing of Aluminum Alloys

By Hugh J. McQueen

Taylor & Francis Inc, 2009. Hardcover. Book Condition: New. 15.6 x 23.5 cm. "PREFACE This book offers readers a fairly comprehensive discussion of the hot working of aluminum and aluminum alloys. It is intended to provide an explanation of the possible microstructural developments that can occur with hot deformation of a varietyof alloys and the kind of mechanical properties that can be anticipated. The microstructures that evolve with torsion, compression, extrusion and rolling are presented based on extensive analysis from polarized light optical microscopy (POM), transmission electron microscopy (TEM), x-ray diffraction (XRD) scanning electron-microscopy with electron backscatter imaging (SEM-EBSD) and orientation imaging microscopy (OIM). The microstructural analysis leads to detailed explanations of dynamic recovery (DRV),static recovery (SRV), discontinuous dynamic recrystallization (dDRX), discontinuous static recrystallization (dSRX), grain defining dynamic recovery (gDRV) (formerly geometric dynamic recrystallization gDRX) and continuous dynamic recrystallization involving a single phase (cDRX/1-phase) and multiple phases, (cDRX/2-phase). Hot working is carefully explained in the context of other elevated temperature phenomena, some of which "overlap" hot working. These include creep, superplasticity, cold working andannealing. Creep plasticity occurs at both warm and hot working temperatures, but is usually associated with lower strain-rates and relatively small strains. On the other hand superplasticity...

Reviews

Good eBook and useful one. It is amongst the most remarkable ebook i actually have study. You can expect to like the way the article writer publish this pdf.

-- ***Prof. Armand Senger DVM***

Absolutely essential go through book. It can be rally fascinating throgh studying period of time. You wont truly feel monotony at at any time of your respective time (that's what catalogues are for concerning in the event you question me).

-- ***Roberto Leannon***