

Table of Contents

Preface

Precipitation and Recrystallization in an Al-Fe Alloy

J. Lendvai 1

Formation and Transformation of Binary Intermetallic Phases in High Purity Al-Fe Alloys

A. Griger, V. Stefániay, E. Kovács-Csetényi and T. Turmezey 17

Estimation of Solute Fe Concentration in Commercial Pure Aluminium

S. Komatsu, M. Ikeda, T. Muramatsu and M. Matsuo 31

AlFeSi Phases in Aluminium

T. Turmezey, V. Stefániay and A. Griger 57

Crystal Structure Determination of Al-Fe-Si Phases by Convergent-Beam Electron Diffraction (CBED)

P. Liu 69

Precipitation and Diffusion Properties of Fe in Al

I.A. Szabó, D.L. Beke and F.J. Kedves 87

Silicon in Commercial Aluminium Alloys - What Becomes of it during DC-Casting?

Y. Langsrud 95

Development of Elevated Temperature AlFe(X) PM Aluminium Alloys by Rapid Solidification Processing

T. Turmezey and V. Stefániay 117

Solidification and Phase Transformation in Liquid Quenched Al-Fe-Si Alloys

L.A. Bendersky 127

Non-Equilibrium Solubility of Iron in Aluminium

J. Lakner 135

Solid Solution Inhomogeneity in DC-Cast AlMn(Fe,Si) Ingots

J. Lakner, E. Kovács-Csetényi and K. Lal 147

Surface Characterization of Rapidly Solidified Aluminium Alloys Containing Iron

Á. Csanády, I. Bertóti, M. Mohai and I. Perczel 155

Precipitation of Fe and Si in Cold Rolled Al-Fe-Si Sheet during Annealing

R. Shoji and C. Fujikura 163

Annealing Behaviour of a Cold Rolled Strip Cast A199.2 Sheet

E. Kovács-Csetényi, K. Banizs and N. Kalev 181

The Influence of Iron on Textures and Earing in Aluminium Sheet

H.E. Ekström, W.B. Hutchinson and A. Oscarsson 189

Effect of Al-Fe and Al-Fe-Si Phases on the Porosity of Al Foils

E. Maár-Kishonthy, T. Tchurbakova, I. Nagyváthy and Á. Cziráki 211

Influence of Fe and Si Containing Phases on the Anodisation Behaviour

J. Timm 219

Al-Si Substitution in Al(Fe,Mn) Si Phases

J.E. Tibballs 233

Precipitation Processes in DC-Cast AlMn(Fe,Si) Alloys

G. Vörös and I. Kovács 247

The Effect of Precipitation on the High Temperature Mechanical Properties of DC-Cast AlMn(Fe,Si) Alloys

N.Q. Chinh, Z. Rajkovits, G. Vörös and I. Kovács 257

The Effect of Fe and Si on the Precipitation Behavior of Mn in Aluminium

I. Móricz, I.A. Szabó, M. Hordós, D.L. Beke and F.J. Kedves 265

Change of Structure and some Mechanical Properties during Processing of AlMn(Fe,Si) Alloys

E. Kovács-Csetényi, A. Griger, T. Turmezey and V. Suchanek 271

Movement of Fe Atoms in the Al-1.3wt.% Mn-0.5wt.% Fe Alloy during Heat Treatment

Á. Cziráki, B. Fogarassy and T. Tchurbakova 285

Diffusion of Mn-54 in Al(MnFeSi) Alloys

I. Móricz, D.L. Beke, I. Gödény, F.J. Kedves and T. Tchurbakova 293

Effect of Fe and Si on the Properties and Structure of Al-Cu-Mg Alloys	299
L.N. Leschiner and V.G. Kovalyov	
Some Aspects of the Metal Purity in High Strength Al-Alloys	311
K. Banizs, J. Csernay-Bálint and G. Vörös	
Effect of Iron and Silicon on the Properties and Microstructure of Al-Zn-Mg-Cu System Aluminium Alloys	321
I.N. Fridlyander and O.G. Senatorova	
Effect of Iron Content on the Microstructure and the Fatigue Behaviour of GK-AlSi12CuMgNi	333
U. Bischofberger, G. Neite and H.E. Exner	
Neutralization of the Negative Influence of Iron and Silicon on the Mechanical Properties of Aluminium Casting Alloys	347
V.S. Zolotorevsky, A.A. Axenov and N.A. Belov	
Effect of Fe on Ageing of AlSi8Cu3 Alloys	365
J. Lakner and N. Sillinger	