

Table of Contents

Preface

Thickness Scaling of Forming Limit Curves H. Aretz	1
Work Hardening of Dual Phase Steel in Subsequent Tensile Testing with Post-Necking Large Pre-Strain T. Matsuno, K. Hokimoto, K. Shimizu, T. Hama and Y. Honda	11
Crystal Plasticity Finite-Element Simulations of Cup Drawing of a ZX10 Magnesium Alloy Sheet T. Hama and N. Miyazawa	21
<i>In Situ</i> EBSD Characterisation of Anisotropic Creep Behaviour in a Thick AA2139 Part during In-Forming Artificial Ageing C. Gautier, P.A. Dubos, D. Gloaguen, B. Girault and M. Rollin	29
Microstructural Modification and Bendability Improvement in 1300 MPa Steel via Induction Surface Heat Treatment A. Kaijalainen, A. Abdelghany, O. Haiko, A.J.T. Hoikkaniemi and A.P. Pokka	39
The Interaction of n- and r-Values and Total Elongation in Forming Limit Curves' Theories R. Borbely, B.V. Toth-Nagy, B. Kecskes, R.Z. Keresztes and G.J. Beres	47
Theoretical and Experimental Forming Limit Evaluation of High-Strength Steels up to 1500 MPa R. Borbely, R.Z. Keresztes and G.J. Beres	57
Evaluation and Comparison of a few Methods for the Strain-Path Correction of FLCs G. Mainguy, X. Lemoine and T. Balan	67
Investigating the Formability of Aluminium Alloy Tubes by Rubber Bulge Testing C. Moon, E.C. Sariyarlioglu and T. Welo	73
Influence of Hydrogen Content on the Ductile Rupture of Advanced High-Strength Steels L. Germain, F. Vucko, F. Peltier and S. Thuillier	81
Asymmetric Hole Expansion Test (aHET) for Direct Measurement of Orientation-Dependent Tensile Fracture Strain R. Pérot, V. Grolleau and D. Mohr	91
A Comparative Study of Multiple Cutting Methods on Thin Ferritic Steel for Tensile Test Experiment T. Azzouni, L. Iona, P. Hegele, W. Volk and C. Hartmann	101
Effect of Tool Edge Geometry on Sheared Surface Formation in Blanking of Oxygen-Free Copper T. Shiratori, Y. Ichiyanagi, K. Watanabe and A. Tatsuhiko	113
Experimental Investigation of the Influence of Load Direction Changes on Damage in Dual Phase Steel and Aluminum Alloy P. Lennemann, A.E. Tekkaya and Y.P. Korkolis	121
Stochastic Forming Limit Curves: Construction of a Probabilistic Tool for Failure Assessment O. Ameline, M.Y. Jedidi, A. Persoons and C. Labergere	127
Forming Limit Test of Asymmetric Al-Polymer Laminate Composite Film C. Sagong, T.J. Jang, T. Ahn and J.W. Yoon	141
Hole Expansion Performance Assessment of Quenched and Partitioning Steel through a Fully Anisotropic Fracture Modeling T.A. Aksen, Z. Li and J. Lian	153
Global and Local Formability of 3rd Generation Advanced High Strength Steels A. Payà, M. Carpio and D. Frómeta	163
Formability Test for Characterizing the Mode II–III Fracture Transition I.M. Almeida, J.P.G. Magrinho, P.A.F. Martins and M.B. Silva	171
Assessing Global and Local Formability from Tensile Tests with Anisotropy Consideration G. Li and J.H. Lian	179
The Influence of Uphill Quench on the Microstructure and Properties of Particle-Reinforced Aluminum Matrix Composites R. Pan, B.S. Liu, N. Guo, Y.S. Zeng, Y.H. Chang and Z.Y. Li	187

Automated Testing and Calibration of Sheet Metal Models C. Ndiritu, Y. Haoues, N. Decultot and S. Thuillier	199
Springback Prediction of 6XXX-Series Aluminum: Effect of Hardening Model, Friction and Binder Loading J. Arciero, K. Cheong, M. Howeyze, I. Escorza, A. Wankhede, K. Kannan, S. Thokala, C. Leppin, D. Anderson and C. Butcher	209
Necking Limits of Anisotropic Metal Sheets Using M-K Theory and Improved Plasticity Models Y. Hou, M. Trask and Y.P. Korkolis	227
Effect of Continuous Bending under Tension on Dual-Phase Steels G. Vincze, R.C. Alves, R.O. Santos and M.C. Vincze	237
Heterostructure High Entropy Alloys in the CoNiFeMn-Mo System Intended for Deep Drawing Applications K. Cichocki, A. Wójcik, P. Lisiecka-Graca, T. Warski and K. Muszka	245