DAS, Solidification Time and Mechanical Properties of Al-11%Si Alloy V-Processed Castings (97-09)—P. Kumar, J.L. Gaindhar .......................... 635
Enhanced Solidification Rate in Castings by Use of Cooling Fins (97-10)—T.C. Wright, J. Campbell .......................... 639
Mechanism of Filtration in Reduction of Casting Defects Due to Surface Turbulence During Mold Filling (97-11)*—B. Sirrell, J. Campbell .......................... 645
Tensile Properties of Cast Al-TiB2 MMC (97-16)—M. Emamy Ghomcy, J. Campbell .......................... 655
Cast Iron Microstructure Anomalies and Their Causes (Committee 5J Report) (97-30)—G.M. Goodrich .......................... 669
Post Combustion in Cupola for Pollution Control (97-40)—N.N. Viswanathan, M.N. Srinivasan, A.K. Lahiri .......................... 685
Strengthening and Toughenemen of ZA27 Squeeze-Cast Alloy (97-47)—H.P. Yu, F.Q. Zhang, R.D. Li .......................... 689
Modeling of Fluid Flow and Heat Transfer in Gating Systems (97-02)—M. Wu .......................... 693
3-D Numerical Simulation of Solidification of Ductile Iron Castings (97-03)—Z.Q. Han, L.K. Jia, J.Y. Su .......................... 703
Modeling Thermal Behavior of Chills During Solidification of Al-Cu-Si Alloy (97-05)—K. Narayan Prabhu, N. Narendra Prabhu .......................... 707
Effect of CaSi, FeSiMg and Ca-Si-GA as Inoculants in Ductile Iron (97-08)—A. Bedolla, B. Hernández .......................... 715
Simulation and Experimental Study on Postfilling Flow and Its Influence on Solidification (97-14)—H.Y. Yuan, H.T. Lin, G.X. Sun .......................... 723
Motion Analysis of Impact Valve Opening in Impact Molding Machine (97-19)—Z. Wu, G. Sun, X. Wang .......................... 733
Wettability of Graphite Mold Coatings by Iron and Steel: Mold-Metal Interfacial Phenomena (97-20)—C. Wu, V. Sahajwalle, R.D. Pehlke .......................... 739
Filling Phenomena and Accumulated Air Pressure in Mold Cavity of Horizontal Gating System (97-33)—L.-R. Hwang, H.-C. Lin, T.-S. Shih .......................... 745
Effect of Matrix Structure on Resonant Failure of SG Cast Irons (97-42)—S.C. Lin, T.S. Lui, L.H. Chen .......................... 753
Austempering Kinetics of Low-Carbon Aluminum Cast Iron (97-44)—S.M.A. Boutorabri, A.A. Fallah .......................... 757
European Direct Shell Sand Core and Moldmaking Rapid Prototyping Process (97-105)—P.R. Carey, Sr., K.J. Kerns, T. Sorovet .......................... 769
Automatic Assessment of Dendrite Cell Spacing in Cast Aluminium Microstructures (97-50)—P.N. Crepeau, W.T. Whited, M.E. Hoover .......................... 775
In-Situ Temperature Measurements in Low-Pressure Permanent-Mold Casting (97-55)—F. Paray, J. Clements, B. Kulunk, J.E. Gruzelinski .......................... 791
Al Front Cross-Member: Choice of Material/Process and Design Optimization (97-58)—S. Durante, A. Fuganti, G. Costan .......................... 803
Automated Visual Inspection of Cracks in Cast and Welded Components (97-64)—S.K. Sethi, B. Ravi, B.K. Mohan .......................... 819
Porosity Formation in Relation to the Feeding Behavior of Al-Si Alloys (97-66)—J.M. Kim, H.W. Kwon, D.G. Kim, C.R. Loper, Jr. .......................... 825
Research Developments in Low-Pressure Diecasting of Automotive Components (97-68)*—T.T. Nguyen, G.R. de Looze, M.T. Murray, R.J. Esdaile .......................... 833
Integrating Numerical Modeling Into Mold Design of High-Pressure Diecasting (97-69)—S. Hao, K.K. Tong, F.C. Yee .......................... 843
Mold Filling of Horizontal Castings and Influence of a Filter (97-77)*—Z.A. Xu, F. Mampea .......................... 853
Control of Dendrite Structure and Macrosegregation in Directionally Solidified Castings With Section Variations (97-78)*—D. Xu, X. Wang, Q. Li, R.D. Pehlke .......................... 861
Casting Process Design Guidelines (97-83)—S. Guleyupoglu .......................... 869
Effect of Modification Treatment on Microporosity Formation in A356 Al Alloy, Part II: Dendrite Morphology (97-91)*—R. Rocho, H. Goldenstein .......................... 883
Porosity Corrosion and Fatigue Behavior in A356-T61 Aluminum Alloy (97-94)*—F.P. Major .......................... 901
Statistical Investigation of the Effects of Shape, Size and Superheat on Solidification Times of Castings (97-95)—M. Tiryakioglu, E. Tiryakioglu, D.R. Askeland .......................... 907
Recent Investigations of Influence of P on Na and Sr Modification of Al-Si Alloys (97-97)—L. Heusler, W. Schneider .......................... 915
Influence of Thermal Analysis Cans on Assessment of Critical Temperatures During Cast Iron Solidification (97-118)—O.M. Suárez, C.R. Loper, Jr. .......................... 929
Sound Pulses Used for On-Line Visualization of Liquid Metal Quality (97-133)—N.D.G. Mountford, J.D. Sommerville, A. Simionescu, C. Bai .......................... 939
Compacted Graphite Iron Production at Cifunsa Using a Process Control System (97-149)—C.R. Farias, I.D. Sommerville, A. Simionescu, C. Bai .......................... 947
Microstructural Interpretation of Thermal Analysis of Commercial 319 Al Alloy With Mg and Sr Additions (97-156)—A.M. Samuel, P. Ouellet, F.H. Samuel, H.W. Doty .......................... 951
Burst Feeding and Its Role in Porosity Formation During Solidification of Al Foundry Alloys (97-160)—A.K. Dahle, L. Arnborg, D. Apelian .......................... 963
Use of Measurement Equipment for Casting Dimensional Inspection (AFS Research) (97-164)—A.A. Karve, R.C. Voigt, L.A. Potter .......................... 971
Hoyt Memorial Lecture
From Low Wax to Low Foam: Reflections on the Past, Present and Future (97-192)—E.L. Kotzin .......................... 981
Discussions .......................... 987
Title Index .......................... 995
Paper Number Index .......................... 999
Division Index .......................... 1003
Author Index .......................... 1007
Subject Index .......................... 1013