

INVESTMENT CASTING INSTITUTE BIBLIOGRAPHY

SECTION 5
GATING, FEEDING AND SOLIDIFICATION

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1983	5:16	36	Design of Hot Tear Test for High Temperature Alloys J. S. Perron	11
	5:17	36	Criteria for Gating Design Thomas Pong	14
1985	5:18	38	Computer Aided Design for Casting and Solidification Technology CADCAST John T. Berry, The Georgia Institute of Technology Robert D. Pehlke, The University of Michigan, Ann Arbor	20
	5:19	38	Advances in Superalloy Cleanliness Robert C. McAllister, Howmet Turbine Components Corp.	6
1987	5:20	41	Practical Finite Element Solidification Simulation: Leading to Concurrent Engineering Kenneth C. Maddux, Structural Dynamics Research Corp. and Leo Buchakjian, General Electric Corporation	21
	5:21	41	Predicting Microporosity in Nickel-Base DS Castings D.R. Poirier and K. Yeum, Dept. of Materials Science & Engineering, The University of Arizona	25
1988	5:22	43	Process Modeling for Investment Casting: A State-of-the-Art Assessment T. S. Piwonka, C. Jordan, J.T. Berry, The University of Alabama	9
	5:23	44	On the Problem of Fluidity and Filtering in Investment Casting M. Horacek, Technical University of Brno, Czechoslovakia, and J. Cileek, Mesit-Foundry, Uherske Hradiste	18
	5:24	44	Computer Simulation for the Solidification of Investment Casting Process J.C. Sturm and P.R. Sahn, Foundry Institute, Aachen Institute of Technology	14

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	5:26	47	The Use of Expert Systems in Designing Gating Systems for Investment Castings J.L. Hill, T.S. Piwonka, J.T. Berry and S. Guleyupoglu, Metal Casting Technology Center, The University of Alabama	23
	5:27	48	Simulation of the Solidification Process of an Integral Rotor and Comparison of Results with Casting Practice H. Bowles, P. Carter, P.Kotschy and J. MacGibbon, CSIR	19
1991	5:28	49	Orientation Measurements of Cast Single-Crystal Structures J.T. Thirlwall, N.R. Comins, J. MacGibbon and S.C. Yates Div. of Materials Science & Technology, Pretoria, S. Africa	15
	5:29	49	Finite Element Simulation of Solidification in Investment Castings David Waite and Mark Samonds, Universal Energy Systems	26
1992	5:30	50	Solidification Analysis of an A201 Investment Casting Dilip K. Banerjee, David M. Waite and Mart T. Samonds, Universal Energy Systems	26
	5:31	50	Requirements for Process Optimization of Investment Castings by Using Simulation Tools Jorg C. Sturm, Magma Giebereitechnologie GmbH, and Lothar H. Kallien, Magma Foundry Technologies, Inc.	24
	5:32	50	The Use of Criteria Functions to Predict Porosity in Aluminum Alloy Investment Castings H. Huang, J.T. Berry, T.S. Piwonka, Metal Casting Technology Center, University of Alabama	16
	5:33	50	High-Energy Computed Tomography of Pratt & Whitney Space Shuttle Main Engine Alternate Turbopump Castings Paul Tonner, ARACOR, Ken Clodfelter, United Technologies Pratt & Whitney, Chip Caccavale, Howmet Corporation	19
	5:34	50	Gating Geometry Studies of Thin Walled 17-4PH Stainless Steel Investment Castings M.C. Maguire, F.J. Zanner, D.J. Minter, and J.D. Murray, Sandia National Laboratories	13

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1993	5:36	53	Modeling Investment Casting Solidification-Opportunities for Concurrent Engineering Dr. T.S. Piwonka, University of Alabama	8
	5:37	53	Knowledge Based Design of Rigging Systems for Investment Castings James L. Hill, Shantanu K. Manna, Atish K. Das and Thomas S. Piwonka, University of Alabama	16
	5:38	53	Simulation of Investment Casting – The Determination of Mould Thermophysical Properties D. J. Browne and K. Sayers, University College, Dublin, Eire	11
1993	5:39	53	The DTI-Supported Casting Modeling Initiative Dr. J.A. Charles, University of Cambridge, UK	3
	5:40	53	Success Stories of Computerized Modeling of Investment Casting Trevor Law, Dewtec Systems Ltd., UK; Thomas Renk, David Schmidt, American Foundrymans Society, Inc. USA; and Lawrence Smiley, Finite Solutions	11
	5:41	54	The Influence of Solidification on the Formation of Oxide Inclusions Dr. Robert H. Frost, Colorado School of Mines	10
	5:42	54	Heat Transfer of the Mold/Metal Interface in Investment Castings Dr. T.S. Piwonka and Dr. J.T. Berry, University of Alabama	17
	5:43	54	Thermal Emissivity Control Coatings for Investment Casting Ronald S. Doles, Nalco-Chemical Co.	22
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	5:45	56	Directional and Single Crystal Solidification Using Liquid Metal Cooling F. Hugo, Leybold Duferrit GmbH, Germany; H. Mayer, Aichelin Industrial Furnaces Ges.m.b.H., Austria, and R.F. Singer, University of Erlangen, Germany	12

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1995	5:47	57	Thermal Transfer of Ceramic Shells Influence on Alloy Properties Michael Hendricks, Donald Engelhardt, Ransom & Randolph; and Steve Sikkenga, Cannon-Muskegon Corporation	13
1996	5:48	58	Analysis and Optimal Design of Risers Based on the Section Modulus Method S. Guleyupoglu, K.O. Yu, Concurrent Technologies Corporation; and J.L. Hill, The University of Alabama	16
1999	5:49	63	Casting of Directionally Solified and Single Crystal Components Using Liquid Metal Colling (LMC) Mr. F. Hugo*, Mr. U. Betz*, Mr. J. Ren**, Mr. S.C. Huang** Mr. J.A. Bondarenko***, Mr. V. Gerasimov*** *ALD Vacuum Technologies GmbH, **General Electric Co. ***All Russian Scientific Research Institute of Aviation Materials	16
	5:50	63	Orientation Control and Stray Grain Stability during Single Crystal Processing of Nickelbase Superalloys Dr. N. D'Souza, Dr. M.G. Ardakani, Dr. B.A. Shollock, Professor M. McLean Dept. of Materials, Imperial College of Science, Technology & Medicine	11
	5:51	64	Heat Transfer at the Mold/Metal Interface in Thin-Wall Castings. K.A. Woodbury and T.S. Piwonka, Metal Casting Technology Center, The University of Alabama	11
	5:52	64	Large DS/SC/EQ Products in Launch with New Vacuum Furnace at DIA Koji Sassa, Itaru Tamura, Hiroshi Asano, DIA Precision Casting Co., Ltd. and Sachino Shimohata, Mitsubishi Heavy Industries, Ltd.	11
	5:53	64	An Overview Finite Element Analysis Tools for Investment Casters From a Consultants Point of View Nipendra P. Singh, S&A Consulting Group LLP	20
2000	5:54	66	Gases in Airmelt Investment Cast Alloys Steve Sikkenga, Cannon-Muskegon Corporation	8

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2005	5:56	72	Understanding Single Crystal Seed Meltback Mechanisms in Nickel-Based Superalloy Investment Casting Lea Kennard, Pratt & Whitney	11
	5:57	72	Pros and Cons of Bottom Gating Commercial and Aerospace Castings Nip Singh, S&A Consulting	4
2007	5:58	74	A Case Study of Ceramic Foam Filter Flow Enhancement by Use of Specialty Designed Pouring Cups Shannon Patrick, Wisconsin Precision Casting Corp.	8
2008	5:59	75	Engineering Casting Quality as a Function of Alloy Solidification Range Ted Klemp III, Remelt Sources, Inc.	23
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