

Microwave and Radio Frequency Applications

*Proceedings of the Fourth World Congress on
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Edited by

R.L. Schulz
Corning Incorporated

D.C. Folz
Virginia Polytechnic Institute and State University

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TABLE OF CONTENTS

Preface	ix
Acknowledgements.....	x
International Technical Program Committee.....	xi

PLENARY/ ENERGY SESSIONS

Up to Date Arguments for Selling Electrotechnologies in Europe or How to Use the Political Framework as Evolved from the Kyoto Agreement K Van Reusel, M. Machiels and R. Belmans	2
Energy Savings in the Chemical Industry K. Van Reusel and R. Belmans.....	14

APPLICATION ECONOMICS AND PRODUCTIVITY

Stimulating Microwave and RF Application Innovation S. Bowater, D. Clunie, S. Kingman	24
A Primer on Evaluating the Economics of a Microwave or Radio Frequency Processing System R.F. Schiffman.....	32

MICROWAVE AND RF APPLICATIONS – CASE HISTORIES

Microwave Preconditioning to Accelerate Solar Drying of Timber G. Brodie.....	41
Cooking Vegetables and Ready Meals By Microwaves and Steam with the Valvo-Pack™ Valve J-P. Bernard	49
Microwave Drying of Paper Documents M. Hajek	59
Investigations and Case Studies of Microwave Heating in the Parquet Industry T. Kayser, M. Pauli, W. Sorgel, J. von Hagen, W. Wiesbeck	67
Microwaving Logs for Energy Savings and Improved Paper Properties and Mechanical Pulps C. T. Scott, J. Klungness, M. Lentz, E. Horn, M. Akhtar.....	75
Drying Macadamia Nuts by Hot Air Combined with Microwaves as Compared to The Conventional Hot Air Process F.A. Silva, A. Marsaioli, Jr.	83

New Microwave Technology and Equipment for Wood Modification G. Torgovnikov, P. Vinden.....	91
MATERIALS PROCESSING – CERAMICS	
Microwave Autogeneous Firing of Structural Ceramics G. Tayler, Paul Williams	100
Microwave Sintering of Abrasion Resistant Alumina Liner Tiles G. Swaminathan, A.B. Datta, L.N. Satapathy	109
Microwave Sintering of Ceramic Materials R.R. Menezes, P.M. Souto, E. Fagury-Neto, Ruth Kiminami.....	118
Reactive Oxide Braze Joining of Ceramic Tubes with A High-Power 83GHz Millimeter Wave Beam System R.W. Bruce, R.L. Bruce, D. Lewis, III, M.A. Imam, A.W. Fliflet , S.H. Gold, M. Kahn, and A.K. Kinkead	133
Microwave Combustion Synthesis of Lead Lanthanum Titanate- (Pb,La)TiO ₃ C.C. dePaula, R.R. Menezes, P.M. Souto, J.A. Eiras, D. Garcia and R. Kiminami.....	142
Study on Microwave Sintering of Multilayer Ceramic Capacitors Y. Fang, H. Peng, D.K. Agrawal, M.T. Lanagan, G. Yang, C.A. Randall.....	148
Microwave Drill Applications for Concrete, Glass and Silicon E. Jerby, O. Aktushev, V. Dikhtyar, P. Livshits, A. Anaton, T. Yacoby, a. Flax, A. Inberg, and D. Armoni,	156
Drying Silica-Gel Using Microwaves C. Folgar, D.C. Folz, C. Suchicital and D.E. Clark	166
Synergistic Effects of Microwave-LASER Hybridization and Its Application to Ceramics Sintering P.D. Ramesh, R. Roy, A. Badzian and S. Copley.....	174
Microwave Synthesis and Sintering Studies on Alumina-Silicon Carbide Composites L.N. Satapathy, P.D. Ramesh, D.K. Agrawal and R. Roy.....	184
Novel Processing of Nanostructured Ceramics Using Microwave B. Vaidyanathan and J.G.P. Binner	192
Microwaves for Sol-Gel Synthesis of Boron Carbide (B ₄ C) M. Rodriguez, U. Ortiz, J. Aguilar, Z. Valdez.....	199

MATERIALS PROCESSING – POLYMERS

A Review of Microwave Assisted Synthesis and Crosslinking of Polymeric Materials D. Bogdal and J. Pielichowski	211
Microwave Assisted Blow Molding of Polyethylene-Terephthalate (PET) Bottles L.Estel, A. Ledoux, C. Bonnet, P.Lebaudy, and M. Delmotte	220
Microwave Welding of Thermoplastic Rods without Conductive Material N. Tran, W.K. Tam, M. Malcman	232
Dielectric Properties and Construction of Polymer-Based Microfluidic Devices Using Microwaves A.A. Yussuf, N. Tran, I. Sbarski, J.P. Hayes, M. Solomon and, M. Malcman	241
Industrial Composite Curing with the 2.45GHz HEPHAISTOS System L.Feher, V. Nuss, T. Seitz, M. Thumm	35
Microwave Curing of an Epoxy Resin System: A Comparison Between Two Different Microwave Applicators and Heating Methods B. Degamber, G.F. Fernando, P. Navabpour, A. Nesbitt, R.J. Day.....	250

MATERIALS PROCESSING – GLASS AND MINERALS

High Temperature Processing of Powders Using Millimeter-Waves G. Link, M. Hauser-Fulberg, M. Janek, R. Nüesch, S. Takayama, M. Thumm, and A. Weisenburger	261
Crystallization of Lithium DiSilicate Glass by Variable Frequency Microwave M. Mahmoud, D.C. Folz, C. Suchicital and D.E. Clark	271
Glass Matrix Composites with Lead Zirconate Titanate Particles Processed by Microwave Heating P. Veronesi, V. Cannillo, C. Leonelli, E.J. Minay, A.R. Boccaccini	278

MATERIALS PROCESSING - METALS

Microwave Interactions in the Melting of Metals H.E. Huey, M.S. Morrow.....	286
Continuous Production of Nanophase Metals, Metal Oxides and Mixtures Using A Microwave-Driven Polyol Process D. Lewis, III, L.K. Kurihara, R.W. Bruce, R.L. Bruce, A.W. Fliflet, S.H Gold	294
Current Advances in Microwave Processing of Metals and Related Emerging Technologies E. B. Ripley, D.M. Douglas, R.L. Hallman, Jr., J.S. Morrell, J.A. Oberhaus, R.D. Seals, and B.C. Warren	302

Microwave Sintering of Metal Powder Compacts S. Takayama, G. Link, M. Sato, and M. Thumm	311
---	-----

WASTE PROCESSING AND REMEDIATION

Microwave Assisted Processing of Phenol Wastewater on Activated Charcoal I. Polaert, L. Estel, A. Ledoux	320
---	-----

New Apparatus for Toxic Waste and Sludge Treatment and for Plasma Processing of Fume by Microwave Power Technique M. Melandri, M. Contarini, A. Breccia	328
--	-----

Inertization of Asbestos by Means of Microwave Heating A. Cappelletti, R. Nannicini, M. Annibali, G. Marucci, P. Veronesi	334
--	-----

ORGANIC CHEMISTRY

Should Microwave-Assisted Reactions and Processes be Qualified and Validated? M. Nüchter, B. Ondruschka, R. Bierbaum, D. Weiß, R. Beckert.....	344
---	-----

Temperature Measurement and Propane Oxidation at Perovskite Catalysts in a Multimode Microwave Reactor H. Will, P. Scholz, B. Ondruschka, W. Burckhardt.....	353
---	-----

Efficient and “Greener” Chemical Synthesis Using Microwave Irradiation R. Varma, Y. Ju	362
---	-----

INORGANIC CHEMISTRY

Evidence for the Microwave Effect During the Hybrid Sintering of Ceramics J. Binner, J.Wang, B. Vaidhyanathan	374
--	-----

DIELECTRIC PROPERTY MEASUREMENTS AND TECHNIQUES

A Generalized Approach for Measuring the Dielectric Properties of Lossy Composite Materials M.J. Akhtar, L. Feher, M. Thumm	383
--	-----

Temperature Dependence of Dielectric Relaxation of Solvent Mixtures C. Bonnet, L. Estel, A. Ledoux, C. Duhaivelle and M. Delmotte	391
--	-----

High Temperature Microwave Dielectric Properties of ZrO ₂ -Y ₂ O ₃ Nano- and Micro Powders T.E. Cross and G.A. Dimitrakis.....	399
--	-----

Useful Relationships between Dielectric Properties and Bulk Density of Powdered and Granular Materials S. O. Nelson	407
Dielectric Measurements of a Timber Sample under Pressure of Several Bars N. Tran, W.K. Tam and M. Malcman.....	416
Measurement and Calculation of the Effective Dielectric Properties for Partially Hollow, Structured Geometries E.M. Vilen, J. George, K. Koch, and G. Squier.....	426

MODELING AND MATERIAL INTERACTIONS

Investigations of Non-Thermal Microwave Effects Using Hybrid Conventional/Microwave Heating Calorimetry J.G.P. Binner, D.M. Price, M. Reading, B. Vaidhyanathan	435
Numerical Modeling Technique to Predict the Dielectric Properties of Wood G. Daian, A. Taube, A. Birnboim, M. Daian, Y. Shramkov.....	443
Thermal Validation of the FDTD Method in a Multimode Cavity J. George, M. Muktoyuk, R. Bergman.....	451
Microwave Heating of Conductive Materials K.I. Rybakov, V.E. Semenov, Yu.V. Bykov, S.V.Egorov, A.G. Eremeev, and I.V. Plotnikov	459
High Frequency Electromagnetism Couples with Conductive Heat Transfer – A Method To Predict Temperature Profiles in Materials Heated in a Focused Microwave Oven C.M. Sabilov, K.P. Sandeep, J. Simunovic	469

PLASMA PROCESSING

Efficient Brazing with Microwave Plasma at Atmospheric Pressure D. Kumar, S. Kumar, M.J. Dougherty, Sr., K. Cherian, D.J. Brosky, and D. Tasch.....	478
Atmospheric Pressure Plasma Microwave Processing M.J. Dougherty, Sr., S. Kumar, D. Kumar, and K. Cherian	485
Carburization of Steel Alloys by Atmospheric Microwave Plasma S. Kumar, D. Kumar, K. Cherian, M.J. Dougherty, Sr., and D. Tasch.....	493
Applications of High Pressure Plasma Chemistry to the Abatement of Perfluorocompounds From Microelectronics Manufacturing M. Radoiu	502

SPECIAL TOPICS

New Gyro-Device System for Millimeter-Wave Processing of Materials Y. Bykov, G. Denisov, A. Ereemeev, M. Glyavin, V. Kholoptsev, A. Kuftin, S. Samsonov, V. Zapevelov	512
RF Radiators for Homogeneous Heating Y.N. Pchel'nikov, R. Dymshits	521
Microwave Synthesis of Aligned Carbon Nanotubes in a Single Mode Cavity J. Cheng, D. Agrawal, Y. Zhang	529

Preface

As chairman of the Fourth World Congress on Microwave and Radio Frequency Applications (4WC), and on behalf of the Microwave Working Group, I am pleased to introduce these Proceedings of the Congress held in Austin Texas in November 2004. Over 165 papers were submitted and accepted for presentation at the 3 ½ day, 25 session event, and I would like to extend a special vote of thanks to our two main Technical Program Chairs: Diane Folz and Dr. Rebecca Schulz. There were approximately 140 scheduled presentations and 35 poster presentations representing over 22 nations. The editors have chosen an excellent representative group of papers for these Proceedings.

Since its inception in 1997, the World Congress on Microwave and RF Applications has provided a forum for interdisciplinary and cross-disciplinary approaches to understanding microwave-materials interactions, processing challenges and experiences as well as new uses for electromagnetic technologies. It is the mission of the Microwave Working Group (MWG) to bridge science, technology and applications. To this end, we organized three previous Congresses: the first two in Orlando, Florida and the third in Sydney, Australia. With the Fourth Congress we took the bold step of organizing it as part of the Annual Fall Meeting of the American Institute of Chemical Engineers (AIChE). The latter is a very large professional society and we felt there was synergy between our groups that would provide greater technology transfer. I would like to thank the staff of the AIChE for their efforts and support.

Being together with about 4000 chemical engineers was an opportunity for our Congress to also include a Technology Fair with exhibits and a special user oriented program. Many chemical engineers got a taste of microwave and RF equipment and its benefits. The future plans of the Microwave Working Group are very innovative. Most significant is a collaborative World Congress on microwave and RF processing which will periodically bring together the microwave groups in Europe, US, Japan and China at one venue.

While we are incorporated, the Microwave Working Group is not a society and we do not collect dues. Our team is small and fluid in its makeup, but its accomplishments are very large. Focusing our mission in the area of microwave and RF processing, we coordinate with other societies, such as AIChE, governments, utilities and universities on a worldwide basis, wherever there is involvement with microwave or RF technology. The output of our efforts is the Congresses which present the best and latest in science and technology together with applications oriented programs designed to attract potential users. For each of our Congresses we select papers for the Congress Proceedings.

The Congress and these Proceedings would not have been possible without the dedication and hard work of the people on our Organizing Committee. Also, we are grateful for the companies and organizations that acted as both Endorsers and Sponsors. Finally, there is the incredibly hard work provided by our Proceedings Editor Becky Schulz. She has my everlasting gratitude and admiration.

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