NZ Applied Technologies			
Comple	ex-Oxide Film	15	
_			Di
The Materials Group at NZ Ap			I —
oxide film growth services. The oxide films are grown by a new Metalorganic Chemical Liquid Deposition method with properties			
comparable to other methods			
addition, our process offers the f			Hi
			H
Excellent composition composition	ontrol	better than 98%	
Multi-component capab	ility		M
Large area		up to 6" in dia.	
• Wide thickness range		100Å - 10µm	<u>M</u>
Double side coating			
Low cost			
LUN 1031			
A growth run for standard comp			
o 3000Å (e.g. PZT, PLZT, BS additional. Non-standard mater			
harge. Volume discounts and c			
nformation contact:			
N7 A.	plied Technologies		
-	et•Woburn, MA 01801		
781-	935-0300 ext. 18		
	: 781-935-2188 il: nzat@tiac.net		
	16 on Reader Service	 Card.	
			Fo
	SAN JUAN		of Se
	ional Conference		
MODELING and SIMU	LATION of MICR	OSYSTEMS	
April			
	19 - 21, 1999		
San Juan Marriott	Resort and Stellaris	Casino	
San Juan Marriott San Juan,	Resort and Stellaris Puerto Rico, USA		
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin	on 19 in the	
San Juan Marriott San Juan, An Interdisciplin	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin	on 19 in the	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin	on 19 in the	
San Juan Marriott San Juan, An Interdisciplin Modeling, Simulation Semiconductor, Material.	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno	on ig in the ology fields leling and	
San Juan Marriott San Juan, An Interdisciplin Modeling, Simulation Semiconductor, Material. MSM emphasizes an interdiscipl mulation, bridging multi-level comput	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied	on ag in the ology fields leling and in the materials,	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material MSM emphasizes an interdiscipl mulation, bridging multi-level comput ctronics, mechanics, chemical, and bic crosystem modeling worldwide, MSM	Resort and Stellaris (Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest ga t provides the premiere forum	by ag in the blogy fields leling and in the materials, thering in applied for presentation,	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material MSM emphasizes an interdiscipl mulation, bridging multi-level comput ctronics, mechanics, chemical, and bio crosystem modeling worldwide, MSM education and exhibition of modeling	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computins s, Sensors and Biotechnol inary system approach to mod ational techniques as applied ological fields. The largest ga t provides the premiere forum g and simulation technologies	by by the boogy fields leling and in the materials, thering in applied of or presentation, and software.	
San Juan Marriott San Juan, An Interdisciplin Modeling, Simulation Semiconductor, Material MSM emphasizes an interdiscipl mulation, bridging multi-level comput ctronics, mechanics, chemical, and bio crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e	Resort and Stellaris (Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest ga provides the premiere forum and simulation technologies Casino is located on the Con easy access to Old and New S	ag in the blogy fields Heling and in the materials, thering in applied of or presentation, and software. dado Beach, an Juan, El	
San Juan Marriott San Juan, An Interdisciplin Modeling, Simulation Semiconductor, Material MSM emphasizes an interdiscipl mulation, bridging multi-level comput ctronics, mechanics, chemical, and bic crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e Morro Fort, El Yunqua Rain fo	Resort and Stellaris (Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest ga provides the premiere forum and simulation technologies Casino is located on the Con easy access to Old and New S	ag in the bology fields leling and in the materials, thering in applied for presentation, and software. dado Beach, an Juan, El averns,	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material MSM emphasizes an interdiscipl mulation, bridging multi-level comput ctronics, mechanics, chemical, and bic crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e Morro Fort, El Yunqua Rain fo	Resort and Stellaris (Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno ational techniques as applied ological fields. The largest gas t provides the premiere forum and simulation technologies Casino is located on the Com- asy access to Old and New S porest National Park, Camuy C	ag in the bology fields leling and in the materials, thering in applied for presentation, and software. dado Beach, an Juan, El averns,	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material. MSM emphasizes an interdiscipl mulation, bridging multi-level compu- tronics, mechanics, chemical, and bio crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e Morro Fort, El Yunqua Rain fu Arecibo Observatory ar	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest gas I provides the premiere forum and simulation technologies Casino is located on the Con- casy access to Old and New S orest National Park, Camuy O	by ag in the blogy fields Heling and in the materials, thering in applied for presentation, and software. dado Beach, an Juan, El averns,	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material MSM emphasizes an interdiscipl imulation, bridging multi-level comput ctronics, mechanics, chemical, and bio crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e Morro Fort, El Yunqua Rain fr Arecibo Observatory ar MSM 99 Conference Secretaria. 4847 Hopyard Road, Suite 3-38.	Resort and Stellaris (Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest ga to provides the premiere forum and simulation technologies Casino is located on the Com asy access to Old and New S orest National Park, Camuy C d the Bacardi Rum Distillery USA: http://www.	ag in the bology fields leling and in the materials, thering in applied for presentation, and software. dado Beach, an Juan, El averns,	
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material. MSM emphasizes an interdiscipl imulation, bridging multi-level comput ctronics, mechanics, chemical, and bio crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e Morro Fort, El Yunqua Rain fo Arecibo Observatory ar MSM 99 Conference Secretaria 4847 Hopyard Road, Suite 3-384 Pleasanton, CA 94588, USA	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest ga t provides the premiere forum and simulation technologies Casino is located on the Con may access to Old and New S porest National Park, Camuy C d the Bacardi Rum Distillery USA: http://www.l Europe: http://dmtw e-mail: msm@	an ag in the blogy fields leling and in the materials, thering in applied for presentation, and software. dado Beach, an Juan, El averns, amer.org/MSM99	•
San Juan Marriott San Juan, An Interdisciplin Modeling , Simulation Semiconductor, Material. MSM emphasizes an interdiscipl imulation, bridging multi-level comput ctronics, mechanics, chemical, and bio crosystem modeling worldwide, MSM education and exhibition of modeling The San Jaun Marriott and Stellaris 10 minutes from the airport with e Morro Fort, El Yunqua Rain fo Arecibo Observatory ar MSM 99 Conference Secretaria 4847 Hopyard Road, Suite 3-384 Pleasanton, CA 94588, USA	Resort and Stellaris Puerto Rico, USA mary Integrative Forum of and Scientific Computin s, Sensors and Biotechno inary system approach to mod ational techniques as applied ological fields. The largest ga t provides the premiere forum g and simulation technologies Casino is located on the Con easy access to Old and New S orest National Park, Camuy C d the Bacardi Rum Distillery <i>USA: http://www.t Europe: http://www.t e-mail: msm@</i> Due: Nov. 30, 1998	an ag in the blogy fields Heling and in the materials, thering in applied of or presentation, and software. dado Beach, an Juan, El averns, Hering in applied damsen, epfl.ch/MSM99 roww.epfl.ch/MSM99 roww.epfl.ch/MSM99	

Advertisers in This Issue

Page No.

Chemat Technology, Inc.	8
Digital Instruments/Veeco Metrology Group	3
EDAX, Inc.	20
Goodfellow	15
High Voltage Engineering Inside	front cover
Huntington Laboratories Outside	back cover
Janis Research Company, Inc.	10
MDC Vacuum	14
The Mellen Company, Inc.	17
MMR Technologies, Inc.	5
Modeling & Simulation of Microsyst	ems 16
Nanomaterials Research Corp.	50
National Electrostatics Corp.	38
NZ Applied Technologies	16
Philips Analytical Inside	back cover
Philips Electron Optics	5, 11, 13
Quad Group	11
Quantum Design	4
Solartron, Inc.	19
SOPRA, Inc.	20
Strem Chemicals, Inc.	31
VAT, Inc.	32
Virginia Semiconductor, Inc.	9
Voltaix, Inc.	32
For free information about the products a	and services

offered in this issue, fill out and mail the Reader Service Card, or FAX it to 312-922-3165.

MRS BULLETIN Advertising Deadlines

 Silicon-on-Insulator Technology— December 1998

Advertising Closing: November 2, 1998

Guest Editors: Robert W. Bower and Jean-Pierre Colinge, University of California-Davis

 Synchrotron Radiation Techniques as Tools for In Situ Characterization in Materials Processing—January 1999

Advertising Closing: December 1, 1998

Guest Editors: Pedro A. Montano, Argonne National Laboratory and Hirouyuki Oyanagi, Electrotechnical Laboratory, Japan

FOR MORE INFORMATION CONTACT: Mary E. Kaufold Manager, Advertising & Exhibits Telephone: 724-779-8312; Fax: 724-779-4397 E-mail: kaufold@mrs.org

16