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6. AUTHOR(S) DR GERY R. STAFFORD					
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13. ABSTRACT (Maximum 200 words) The Conference was well-attended with 108 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students.					
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**1998 GORDON RESEARCH CONFERENCE
on ELECTRODEPOSITION
FINAL PROGRESS REPORT**

**AIR FORCE OFFICE OF SCIENTIFIC RESEARCH
GRANT NO. F49620-98-1-0153**

The Gordon Research Conference (GRC) on ELECTRODEPOSITION was held at COLBY SAYWER 2 from 8/9/98 thru 8/14/98. The Conference was well-attended with 108 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students.

In designing the formal speakers program, emphasis was placed on current unpublished research and discussion of the future target areas in this field. There was a conscious effort to stimulate lively discussion about the key issues in the field today. Time for formal presentations was limited in the interest of group discussions. In order that more scientists could communicate their most recent results, poster presentation time was scheduled. Attached is a copy of the formal schedule and speaker program and the poster program. In addition to these formal interactions, "free time" was scheduled to allow informal discussions. Such discussions are fostering new collaborations and joint efforts in the field.

I want to personally thank you for your support of this Conference. As you know, in the interest of promoting the presentation of unpublished and frontier-breaking research, Gordon Research Conferences does not permit publication of meeting proceedings. If you wish any further details, please feel free to contact me. Thank you.

Sincerely,



GERY R STAFFORD

NIST

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FEB 09 1999

**Electrodeposition Gordon Conference
Colby-Sawyer College
New London, New Hampshire USA
August 9-14, 1998**

Program

Session 1. (Sunday evening, 7:30 - 9:30 pm)

Topic: Deposition Involving Semiconductors

Discussion Leader - **Walther Schwarzacher** - University of Bristol

Peter Searson - The Johns Hopkins University

- *Electrochemical deposition of metals on silicon*

Daniel Lincot - CNRS-ENSCP, Paris

- *Cathodic electrodeposition of semiconducting oxides with ZnO as a reference example*

9:30 pm Social Mixer

Session 2. (Monday morning, 9:00 am - 12:30 pm)

Topic: UPD/Electrocrystallization

Discussion Leader - **Radoslav Adzic** - Brookhaven National Laboratory

Gregory Jerkiewicz - Universite de Sherbrooke

- *Energetics of UPD Layers*

Olaf Magnussen - University of Ulm

- *Nucleation and growth of ultrathin nickel films*

Philippe Allongue - CNRS, Paris

- *Growth and properties of ultrathin magnetic films*

Session 3. (Monday evening, 7:30 - 9:30 pm)

Topic: UPD/Electrocrystallization

Discussion Leader - **Radoslav Adzic** - Brookhaven National Laboratory

Richard Nichols - University of Liverpool

- *In-situ scanning probe microscopy (SPM) and stress investigations of metal electrodeposition processes*

Benjamin Scharifker - Universidad Simon Bolivar

- *Current theoretical and experimental approaches to the study of electrochemical nucleation with diffusion-controlled growth*

9:30 pm Poster Session 1

Session 4. (Tuesday morning, 9:00 am - 12:30 pm)

Topic: Morphology

Discussion Leader - **Jacob Jorne** - University of Rochester

Fereydoon Family - Emory University

- *Dynamics of surface fluctuations in electrodeposition: theory, simulations and experiments*

Francoise Argoul - Centre de Recherche Paul Pascal

- *In-situ optical techniques for probing an electrodeposition experiment in thin gap geometry*

Dale Barkey - University of New Hampshire

- *Thermodynamics and the growth form of single crystals*

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Session 5. (Tuesday evening, 7:30 - 10:30 pm)

Topic: Novel Materials/Technology

Discussion Leader - **Jan Talbot** - University of California, San Diego

Daniel Schwartz - University of Washington

- *Electrodeposited metal cyanide and thiocyanate compounds for new environmentally benign technologies*

Short Talks

Session 6. (Wednesday morning, 9:00 am - 12:30 pm)

Topic: Additives

Discussion Leader - **James Martin** - LeaRon Inc.

Jacek Lipkowski - University of Guelph

- *Adsorption of organic additives at metal surfaces and their influence on electrodeposition phenomena*

Alan West - Columbia University

- *Theoretical and experimental studies of additives in copper electrodeposition*

Andrew Gewirth - University of Illinois at Urbana-Champaign

- *Influence of organic and inorganic additives on the growth and scaling of Cu electrodeposits*

Session 7. (Wednesday evening, 7:30 - 9:30 pm)

Topic: Nanostructures

Discussion Leader - **Jay Switzer** - University of Missouri, Rolla

Reginald Penner - University of California, Irvine

- *A hybrid electrochemical/chemical route to luminescent quantum dots on electrode surfaces*

Joerg Ziegler - University of Ulm

- *Electrochemical nanostructuring with an STM*

9:30 pm Poster Session 2

Session 8. (Thursday morning, 9:00 am - 12:30 pm)

Topic: Alloy Deposition

Discussion Leader - **Gina Whitney** - IBM

Michael Matlosz - ENSIC, Nancy

- *Mechanism of copper-nickel alloy deposition from citrate baths*

Vladimir Jovic - University of Belgrade

- *Characterization of electrodeposited alloys by electrochemical techniques*

Charles Hussey - University of Mississippi

- *The electrodeposition of transition metal-aluminum alloys from chloroaluminate molten salts*

Session 9. (Thursday evening, 7:30 - 9:30 pm)

Topic: Electroless Deposition

Discussion Leader - **Tetsuya Osaka** - Waseda University

Konrad Weil - Penn State University

- *In-situ STM studies of the mechanism of electroless copper deposition*

Hideo Honma - Kanto Gakuin University

- *Electroless nickel deposition on the nano-size protruded optical fiber*

Conference Registration List

ELECTRODEPOSITION

10-Aug-9

JOSEPH A ABYS
LUCENT TECHNOLOGIES INC.
GENERAL MANAGER, ELECTRO. CHEM. & SERV.
ROOM 2D-354, 600 MOUNTAIN AVENUE
MURRAY HILL, NJ 07974

Phone: 908-582-6651
Fax: 908-852-6700
Email: JABYS@LUCENT.COM

Participation: Attendee

RADOSLAV R ADZIC
BROOKHAVEN NATIONAL LABORATORY
BUILDING 815

Phone: 516-344-4522
Fax: 516-344-3137
Email: ADZIC@SOLIDS.PHY.BNL.GOV

Participation: Discussion Ldr

UPTON, NY 11973

PHILIPPE ALLONGUE
CNRS UPR 15
PHYSIQUE DES LIQUIDES ET ELECTROCHIMIE
UNIVERSITE' PARIS VI 4 PLACE JURNEU
PARIS, 75005
FRANCE

Phone: 33-1-44274153
Fax: 33-1-44274074
Email: PA@CCR.JUSSIEU.FR

Participation: Speaker

FRANCOISE ARGOUL
CENTRE DE RESEARCH PAUL PASCAL
AVENUE A. SCHWEITZER

Phone: 33-556845665
Fax: 33-556845600
Email: ARGOUL@CRPP.U-BORDEAUX.FR

Participation: Speaker

PESSAC, F-33600
FRANCE

STEPHAN A ARMYANOV
BULGARIAN ACADEMY OF SCIENCES
INSTITUTE OF PHYSICAL CHEMISTRY
UL. AKADEMIK G. BONCHEV, BLOK 11
SOFIA, 1113
BULGARIA

Phone: 359-2-700037
Fax: 359-2-9712688
Email: ARMYANOV@IPCHP.IPC.BAS.BG

Participation: Poster Presenter

IMRE BAKONYI
RSCH INST SOLID STATE PHYSICS & OPTICS
P.O. BOX 49

Phone:
Fax:
Email: BAKONYI@POWER.SZFKI.KFKI.HU

Participation: Poster Presenter

BUDAPEST, H-1525
HUNGARY

DALE P BARKEY
UNIVERSITY OF NEW HAMPSHIRE
DEPARTMENT OF CHEMICAL ENGINEERING
KINGSBURY HALL
DURHAM, NH 03824

Phone: 603-862-1918
Fax: 603-862-3747
Email: DPB@KEPLER.UNH.EDU

Participation: Speaker

CARLOS R BEAUCHAMP
NATIONAL INSTITUTE OF STANDARDS & TECH.
224/B-166

GAITHERSBURG, MD 20899

Phone: 301-975-6411
Fax: 301-926-7679
Email: CARLOS.BEAUCHAMP@NIST.GOV

Participation: Attendee

UGO BERTOCCI
NIST
NIST

GAITHERSBURG, MD 20899

Phone: 301-975-6402
Fax: 301-926-7679
Email: BERTOCCI@MAILSERVER3.NIST.GOV

Participation: Attendee

JOHN P BIRTLES
TUFTS UNIVERSITY
DEPARTMENT OF CHEMISTRY
62 TALBOT AVENUE
MEDFORD, MA 02155

Phone: 617-627-5308
Fax: 617-627-3443
Email: JBIRTLES@EMERALD.TUFTS.EDU

Participation: Poster Presenter

ALEXANDER M BITTNER
ECOLE POLY. FED. LAUSANNE
INST. PHYS. EXP., DEPT. PHYS., EPFL

LAUSANNE, CANTON DE VAU CH-1015
SWITZERLAND

Phone: 41-216933358
Fax: 41-216933604
Email: ALEXANDER.BITTNER@IPE.DP.EPFL.CH

Participation: Poster Presenter

JEAN-CLAUDE BRADLEY
DREXEL UNIVERSITY
DEPARTMENT OF CHEMISTRY
32ND AND CHESNUT STREETS
PHILADELPHIA, PA 19104

*Filament
growth to
connect Cu.
High Purity
(Chromist using)
idea from*

Phone: 215-895-2647
Fax: 215-895-1265
Email: BRADLEJC@POST.DREXEL.EDU

Participation: Poster Presenter

CLAIRE BRISSOT
LPMC
ECOLE POLYTECHNIQUE
PALAISEAU
CEDEX, 91128
FRANCE

Phone: 33-169334666
Fax: 33-169333004
Email: CLAIRE.BRISSOT@POLYTECHNIQUE.FR

Participation: Poster Presenter

GRAHAM T CHEEK
UNITED STATES NAVAL ACADEMY
CHEMISTRY DEPARTMENT, STOP 9B
572 HOLLOWAY ROAD
ANNAPOLIS, MD 21403

Phone: 410-293-6625
Fax: 410-293-2218
Email: CHEEK@NADN.NAVY.MIL

Participation: Poster Presenter

HUGH C DE LONG
AF OFFICE OF SCIENTIFIC RESEARCH
SUITE B115
110 DUNCAN AVE
BOLLING AFB, DC 20332-8050

Phone: 202-767-7761
Fax: 202-404-7475
Email: HUGH.DELONG@AFOSR.AF.MIL

Participation: Poster Presenter

cell biology & separation

DAVID A DUDEK
NORTH CAROLINA STATE UNIVERSITY
DEPARTMENT OF CHEMICAL ENGINEERING
NCSU BOX 7905
RALEIGH, NC 27695-7905

Phone: 919-515-3639
Fax: 919-515-3465
Email: DADUDEK@EOS.NCSU.EDU
Participation: Poster Presenter

NOEL W DUFFY
UNIVERSITY OF BATH
DEPT. OF CHEMISTRY
CLAVERTON DOWN
BATH, BA2 7AY
UK

Phone: 64-1225-82601
Fax: 64-1225-82623
Email: CHSNWD@BATH.AC.UK

Participation: Poster Presenter

JOANNE M ELLIOTT
SOUTHAMPTON UNIVERSITY
CHEMISTRY DEPARTMENT

Phone: 1703-594991
Fax: 1703-593781
Email: JME@SOTON.AC.UK

SOUTHAMPTON, HAMPSHIRE SO17 1BJ
UK

Participation: Poster Presenter

PETER J ELMGREN
MOLEX, INC.
2222 WELLINGTON ST.

Phone: 630-527-4813
Fax: 630-969-1352
Email: PELMGREN@MOLEX.COM

LISLE, IL 60532

Participation: Attendee

FRANK ENDRES
UNIVERSITY OF KARLSRUHE
PHYSICAL CHEMISTRY DEPARTMENT

Phone: 49-7216083266
Fax: 49-7216084856
Email: FRANK.ENDRES@CHEMIE.UNI-KARLSRUH

KARLSRUHE, D-76128
GERMANY

Participation: Poster Presenter

FEREYDOON FAMILY
EMORY UNIVERSITY
PHYSICS DEPARTMENT

Phone: 404-727-4293
Fax: 404-727-0873
Email: PHYFF@EMORY.EDU

ATLANTA, GA 30322

Participation: Speaker

FERESHTEH FARZAD
JOHNS HOPKINS UNIVERSITY
CHEMISTRY DEPARTMENT
3400 NORTH CHARLES STREET
BALTIMORE, MD 21218

Phone: 410-516-5573
Fax: 410-516-8420
Email: FARZADF@JHUVMS.HCF.JHU.EDU

Participation: Poster Presenter

ARTURO M FERNANDEZ
NATIONAL UNIV. OF MEXICO
AV XOCHICALO S/N
COL. CENTRO
TEMIXCO, MORELOS 62580
MEXICO

Phone: 5-73-250052
Fax: 5-73-250044
Email: AFM@MAZATL.CIE.UNAM.MX

Participation: Poster Presenter

Check for recent publications on co-depositing metal (I) with liquid crystals - small channel growth.

ROBERT W FILAS
LUCENT TECHNOLOGIES, BELL LABORATORIES
7E-205,600 MOUNTAIN AVE.

MURRAY HILL, NJ 07974

Phone: 908-582-5382
Fax: 908-582-5570
Email: RWF@LUCENT.COM

Participation: Attendee

BILLY H FLOWERS
UNIVERSITY OF GEORGIA
CHEMISTRY DEPT.
1001 CEDAR ST.
ATHENS, GA 30602

Phone: 706-542-9453
Fax:
Email: FLOWERS@SUNCHEM.CHEM.UGA.EDU

Participation: Poster Presenter

DAVID G FOSTER
EASTMAN KODAK COMPANY & UNIV ROCHESTER
RESEARCH AND DEVELOPMENT LABS
1700 DEWEY AVENUE
ROCHESTER, NY 14650-1909

Phone: 716-477-6863
Fax: 716-477-7008
Email: DGFOSTER@KODAK.COM

Participation: Attendee

JAN L FRANSAER
KULEUVEN
DEPT. MTM
DE CROYLAAN 2
HEVERLEE, BRABANT 3001
BELGIUM

Phone: 32-16321239
Fax: 32-16321991
Email: JAN@SUNMTM.KULEUVEN.AC.BE

Participation: Poster Presenter

WERNER FREYLAND
UNIVERSITY OF KARLSRUHE
INST PHYSICAL CHEMISTRY & ELECTROCHEM

KARLSRUHE, D-76128
GERMANY

Phone: 0721-608-2100
Fax: 0721-608-4856
Email: werner.freyland@chemie.uni-karls

Participation: Poster Presenter

ANDREW A GEWIRTH
UNIV OF ILLINOIS AT URBANA-CHAMPAIGN
DEPARTMENT OF CHEMISTRY

URBANA, IL 61801

Phone: 217-333-8329
Fax: 217-333-2685
Email: AGEWIRTH@UIUC.EDU

Participation: Speaker

PAU GOROSTIZA
UNIVERSITAT DE BARCELONA
DEPARTAMENT D'ELECTRONICA
MARTI I FRANQUES, 1
BARCELONA, SPAIN 08028

Phone: 3493-4021349
Fax: 3493-4021398
Email: POW@GIGA.SCT.UB.ES

Participation: Speaker

GEIR M HAARBERG
THE NORWEGIAN INSTITUTE OF TECHNOLOGY
ELECTROLYSIS GROUP
GLOSHAUGEN
TRONDHEIM, N-7034
NORWAY

Phone: 47-73594036
Fax: 47-73594083
Email: GEIR.M.HAARBERG@MATEK.SINTEF.NO

Participation: Poster Presenter

CHARLIE HARDY
3 M COMPANY
3 M CENTER, BLDG. 201-1W-28

ST PAUL, MN 55144-1000

Phone: 612-737-3044
Fax: 612-737-5335
Email: LHARDY@MMM.COM

Participation: Attendee

HIDEO HONMA
KANTO GAKUIN UNIVERSITY
4834 MUTSUURA KANAZAWA-KU

YOKOHAMA CITY,
JAPAN

Phone: 81-457867156
Fax: 81-457848153
Email: HONMA@KANTO-GAKUIN.AC.JP

Participation: Speaker

CHARLES L HUSSEY
UNIVERSITY OF MISSISSIPPI
DEPARTMENT OF CHEMISTRY

UNIVERSITY, MS 38677-9999

Phone: 601-232-7301
Fax: 601-232-7300
Email: CHCLH@CHEM1.OLEMISS.EDU

Participation: Speaker

KAVITA M JEERAGE
UNIVERSITY OF WASHINGTON
BOX 351750
BENSON HALL
SEATTLE, WA 98195-1750

Phone: 206-685-2289
Fax:
Email: KJEERAGE@U.WASHINGTON.EDU

Participation: Poster Presenter

GREGORY JERKIEWICZ
UNIVERSITE DE SHERBROOKE
DEPT OF CHEMISTRY
2500 BOULEVARD UNIVERSITE
SHERBROOKE, PQ J1K 2R1
CANADA

Phone: 819-821-7085
Fax: 819-821-8017
Email: GREGORY.JERKIEWICZ@COURRIER.U
SHE

Participation: Speaker

SHU JIN
INTEL CORPORATION
SC1-03
2200 MISSION COLLEGE BOULEVARD
SANTA CLARA, CA 95052

Phone: 408-765-2595
Fax: 408-765-2949
Email: SHU.JIN@INTEL.COM

Participation: Attendee

JACOB JORNE
UNIVERSITY OF ROCHESTER
DEPARTMENT OF CHEMICAL ENGINEERING

ROCHESTER, NY 14627

Did metal growth in to Al₂O₃ matrix (check)
Phone: 716-275-4584
Fax:
Email: JORNE@CHE.ROCHESTER.EDU

Participation: Discussion Ldr

VLADIMIR JOVIC
UNIVERSITY OF BELGRADE
CENTER FOR MULTIDISCIPLINARY STUDIES
P.O. BOX 33
BELGRADE, 11030
YUGOSLAVIA

Phone: 381-112337902
Fax:
Email: GAJA@ELAB.TMF.BG.AC.YU

Participation: Speaker

JAMES KELLY
COLUMBIA UNIVERSITY
1018 MADD BUILDING
DEPARTMENT OF CHEMICAL ENGINEERING
NEW YORK, NY 10027

Phone: 212-854-4463
Fax: 212-854-3054
Email: JJK35@COLUMBIA.EDU

Participation: Poster Presenter

ADARSH KUMAR
MICROELECTRONICS - LAB/URF
9221 RUMSEY RD.

Phone: 410-715-9111
Fax: 410-715-9057
Email:

Participation: Attendee

COLUMBIA, MD 21045

GABRIELA LACCONI
CORDOBA UNIVERSITY
FACULTY CS. QUIM
A.P. 4, C.C.61
CORDOBA, 5000
ARGENTINA

Phone: 54-51-334169
Fax: 54-51-334188
Email: GLACCONI@FISQUIM.FCQ.UNC.EDU.AR

Participation: Poster Presenter

STEVEN H LAWRENCE
NAVAL RESEARCH LABORATORY
CODE 6314 (ENVIRONMENTAL EFFECTS BRANCH)
4555 OVERLOOK AVENUE, S.W.
WASHINGTON, DC 20375-5343

Phone: 202-767-3310
Fax: 202-767-4642
Email: LAWRENCE@ANVIL.NRL.NAVY.MIL

Participation: Poster Presenter

KENNETH I LAZAAR
E.I. DUPONT COMPANY
ELECTRONIC DEPARTMENT
PATTERSON BLVD
TOWANDA, PA 18848

Phone: 717-268-3206
Fax: 717-268-3971
Email: LAZAARKI@LDCL1.DNET.DUPONT.COM

Participation: Attendee

CHRISTOPHE LEGER
CENTRE DE RECHERCHE PAUL PASCAL
AV SCHWEITZER

Phone: 33-5-56845642
Fax: 33-5-56845600
Email: LEGER@CRPP.U-BORDEAUX.FR

Participation: Poster Presenter

PESSAC, 33600
FRANCE

KNONA C LIDDELL
WASHINGTON STATE UNIVERSITY
CHEMICAL ENGINEERING DEPARTMENT

Phone: 509-335-3710
Fax: 509-335-4806
Email: LIDDELL@CHE.WSU.EDU

Participation: Poster Presenter

PULLMAN, WA 99164-2710

DANIEL LINCOT
UNITE ASSOCIEE AU CNRS
ECOLE NTNL SUP DE CHEM DE PARIS, LAB D
ELEC ANALY ET APPL, 11 RUE PIERRE ET M C
PARIS 05, 75231
FRANCE

Phone: 33-143545385
Fax: 33-144276750
Email: LINCOT@EXT.JUSSIEU.FE

Participation: Speaker

JACEK LIPKOWSKI
UNIVERSITY OF GUELPH
DEPARTMENT OF CHEMISTRY

GUELPH, ON N1G 2W1
CANADA

Phone: 519-824-4120
Fax: 519-766-1499
Email: LIPKOWSKI@CHEMBIO.UOGUELPH.CA

Participation: Speaker

ZHEN LIU
MKE-QUANTUM CORPORATION
333 SOUTH STREET

SHREWSBURY, MA 01545

Phone: 508-770-2514
Fax: 508-770-5310
Email: ZLIU@TDH.QNTM.COM

Participation: Attendee

CHRISTINE LIZZUL RINNE
NORTH CAROLINA STATE UNIVERSITY
NCSU-MATERIALS SCIENCE & ENGINEERING
BOX 7907
RALEIGH, NC 27695-7907

Phone: 919-248-1107
Fax: 919-467-8375
Email: CLIZZUL@EOS.NCSU.EDU

Participation: Poster Presenter

OLAF MAGNUSSEN
UNIVERSITY ULM
ABTEILUNG OBERFLAECHENCHEM UND KATALYSE

ULM, D-89069
GERMANY

Phone: 49-7315025457
Fax: 49-7315025452
Email: OMAGNUSS@BLITZ.CHEMIE.UNI-ULM.DE

Participation: Speaker

GUILLERMO MARSHALL
UNIVERSITY OF BUENOS AIRES
DEPT DE COMPUTACION, FAC DE CIENCIAS
EXACTAS Y NATURALES, PABELLON I CIUDAD U
BUENOS AIRES, 1428
ARGENTINA

Phone: 54-1-7830729
Fax: 54-1-7830729
Email: MARSHALG@MAIL.RETINA.AR

Participation: Poster Presenter

JAMES L MARTIN
LEARONAL INC.
272 BUFFALO AVENUE

FREEPORT, NY 11520

Phone: 516-868-8800
Fax: 516-868-4781
Email: MARTINLRI@AOL.COM

Participation: Discussion Ldr

MICHAEL MATLOSZ
LSGC-ENSIC
1, RUE GRANDVILLE
B.P. 451
NANCY, F-54001
FRANCE

Phone: 33-383175257
Fax: 33-38332975
Email: MATLOSZ@ENSIC.U-NANCY.FR

Participation: Speaker

JOHN A MITCHELL
NAVAL RESEARCH LAB
CODE: 6170

WASHINGTON, DC 20375

Phone: 202-404-6356
Fax: 202-767-3321
Email: MITCHELL@CCF.NRL.NAVY.MIL

Participation: Attendee

THOMAS P MOFFAT
N.I.S.T.
BUILDING 224 B166

GAITHERSBURG, MD 20899-3956

Phone: 301-975-2143
Fax: 301-926-7679
Email: TMOFFAT@NIST.GOV

Participation: Attendee

MASATSUGU MORIMITSU
KYUSHU INSTITUTE OF TECHNOLOGY
TOBATA

KITAKYUSHU, FUKUOKA 8048550
JAPAN

Phone: 93-8843309
Fax: 93-8843309
Email: MORIMIZ@CHE.KYUTECH.AC.JP

Participation: Poster Presenter

RONALD J MORRISSEY
TECHNIC, INC.
1 SPECTACLE STREET

CRANSTON, RI 02910-1032

Phone: 401-781-6100
Fax: 401-781-2890
Email:

Participation: Attendee

EDWARD J MULLARKEY

8020 TANWORTH CT.

SPRINGFIELD, VA 22152

Phone: 703-912-7585
Fax:
Email:

Participation: Attendee

HIDEO NAOHARA
HOKKAIDO UNIVERSITY
KITA-10, NISHI-8, KITA-KU

SAPPORO, HOKKAIDO 060-0810
JAPAN

Phone: 81-117062717
Fax: 81-117462557
Email: NAO@PCL.SCI.HOKUDAI.AC.JP

Participation: Poster Presenter

RICHARD J NICHOLS
LIVERPOOL UNIVERSITY
THE DONNAN & ROBERT ROBINSON LABS
DEPARTMENT OF CHEMISTRY
LIVERPOOL, L69 3BX
UK

Phone: 44-151-7943533
Fax: 44-151-7943588
Email: NICHOLS@LIV.AC.UK

Participation: Speaker

ROBERT OBERLE
ENGELHARD CORPORATION
1 WEST CENTRAL AVENUE

E. NEWARK, NJ 07029

Phone: 973-268-7800
Fax: 973-268-7860
Email: BOB_OBERLE@ENGELHARD.COM

Participation: Attendee

TETSUYA OSAKA
WASEDA UNIVERSITY
SCHOOL OF SCIENCE AND ENGINEERING
OKUBO 3-4-1, SHINJUKU-KU
TOKYO, 160
JAPAN

Phone: 81-3-52863202
Fax: 81-3-32052074
Email: OSAKATET@MN.WASEDA.AC.JP

Participation: Discussion Ldr

TONY PENG
UNIVERSITY OF MARYLAND AT COLLEGE PARK
DEPT. OF MATERIALS & NUCLEAR ENGINEERING

COLLEGE PARK, MD 20742

Phone: 301-405-5307
Fax: 301-314-9477
Email: TONYPENG@GLUE.UMD.EDU

Participation: Poster Presenter

REGINALD M PENNER
UNIVERSITY OF CALIFORNIA, IRVINE
DEPARTMENT OF CHEMISTRY

IRVINE, CA 92697-2025

Phone: 714-824-8572
Fax: 714-824-3168
Email: RMPENNER@UCI.EDU

Participation: Speaker

ALLEN REED
TECHNIC INC.
BOX 9650

PROVIDENCE, RI 02940
USA

Phone: 401-785-8774
Fax: 401-781-2890
Email: AG004@OSFN.RHILINET.GOV

Participation: Monitor

PAUL RIDLEY
UNIVERSITY OF LIVERPOOL
DEPARTMENT OF CHEMISTRY
OXFORD STREET
LIVERPOOL, MERSEYSIDE L7 7ZD
UK

Phone: 1517943533
Fax: 1517943588
Email: NUFC8@LIV.AC.UK

Participation: Poster Presenter

MICHEL Y ROSSO
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE, LPMC
ECOLE POLYTECHNIQUE
PALAISEAU, 91128
FRANCE

Phone: 33-1-69334667
Fax: 33-1-69333004
Email: MICHEL.ROSSO@POLYTECHNIQUE.FR

Participation: Poster Presenter

LOURDES G SALAMANCA-RIBA
UNIVERSITY OF MARYLAND
MATERIALS & NUCLEAR ENGINEERING DEPT

COLLEGE PARK, MD 20742

Phone: 301-405-5220
Fax: 301-314-9467
Email: RIBA@ENG.UMD.EDU

Participation: Attendee

FAUSTO SANZ
UNIVERSITAT DE BARCELONA
DEPT. DE QUIMICA FISICA
MARTI I FRANQUES, 1
BARCELONA, SPAIN 08028

Phone: 3493-4021240
Fax: 3493-4021231
Email: F.SANZ@DEPT.QF.UB.ES

Participation: Attendee

BENJAMIN R SCHARIFKER
UNIVERSIDAD SIMON BOLIVAR
DEPARTAMENTO DE QUIMICA
APARTADO 89000
CARACAS, 1080A
VENEZUELA

Phone: 58-29063980
Fax: 58-29063961
Email: BENJAMIN@USB.VE

Participation: Speaker

WERNER SCHINDLER
MPI MIKROSTRUKTURPHYSIK
WEINBERG 2

HALLE, 06120
GERMANY

Phone: 49-3455582615
Fax: 49-3455582566
Email: SCHI@MPI-HALLE.MPG.DE

Participation: Speaker

FELIX SCHWAGER
LEA RONAL AG
GROSSMATTE 4

LITTAU, LUZERN 6014
SWITZERLAND

Phone: 41-41-2594444
Fax: 41-41-2594401
Email: F.SCHWAGER@MIAL.TIC.CH

Participation: Attendee

DANIEL SCHWARTZ
UNIVERSITY OF WASHINGTON
DEPARTMENT OF CHEMICAL ENGINEERING
BF-10
SEATTLE, WA 98195

Phone: 206-685-4815
Fax: 206-685-3451
Email: SCHWARTZ@CHEM.WASHINGTON.EDU

Participation: Speaker

WALTHER SCHWARZACHER
UNIVERSITY OF BRISTOL
H H WILLS PHYSICS LAB
TYNDALL AVENUE
BRISTOL, BS8 1TL
UK

Phone: 44-117-9288709
Fax: 44-117-9255624
Email: W.SCHWARZACHER@BRISTOL.AC.UK

Participation: Discussion Ldr

PETER SEARSON
THE JOHNS HOPKINS UNIVERSITY
DEPT OF MATERIALS SCIENCE & ENGINEERING

BALTIMORE, MD 21218

Phone: 410-516-8774
Fax: 410-516-5293
Email: SEARSON@JHU.EDU

Participation: Speaker

MUTSUHIRO SHIMA
UNIVERSITY OF MARYLAND
DEPT. OF MATERIALS AND NUCLEAR ENGIN.

COLLEGE PARK, MD 20742

Phone: 301-405-7756
Fax: 301-314-9467
Email: SHIMA@GLUE.UMD.EDU

Participation: Poster Presenter

DEXTER SNYDER
GM RESEARCH & DEV. CENTER
MC 480-106-224
30500 MOUND RD.
WARREN, MI 48090-9055

Phone: 810-986-0706
Fax: 810-986-3091
Email: DSNYDER@NOTES.GMR.COM

Participation: Monitor

THOMAS A SORENSON
UNIVERSITY OF GEORGIA
DEPT. OF CHEMISTRY

ATHENS, GA 30602

Phone: 706-542-9453
Fax: 706-542-9454
Email: SORENSON@SUNCHEM.CHEM.UGA.EDU

Participation: Poster Presenter

GERY R STAFFORD
NIST
ELECTRODEPOSITION GROUP
BUILDING 224, ROOM B166
GAITHERSBURG, MD 20899-3956

Phone: 301-975-6412
Fax: 301-926-7679
Email: GERY.STAFFORD@NIST.GOV

Participation: Chair

JOHN L STICKNEY
UNIVERSITY OF GEORGIA
DEPARTMENT OF CHEMISTRY

Phone: 706-542-1967
Fax: 706-542-9454
Email: STICKNEY@SUNCHEM.CHEM.UGA.EDU

Participation: Vice Chair

IAN I SUNI
CLARKSON UNIV.
DEPT. OF CHEM. ENGIN.
BOX 5705
POTSDAM, NY 13699-5705

Phone: 315-268-4471
Fax: 315-268-6654
Email: ISUNI@CLARKSON.EDU

Participation: Poster Presenter

ELIANE SUTTER
UNIVERSITY OF VERSAILLES
45, AVENUE DES ETATS UNIS

Phone: 33-1-39254383
Fax: 33-1-39254381
Email: SUTTER@ASPIRINE.CHIMIE.UVSQ.FR

VERSAILLES, CEDEX 78035
FRANCE

Participation: Poster Presenter

JAY A SWITZER
UNIVERSITY OF MISSOURI-ROLLA
DEPARTMENT OF CHEMISTRY
103 MATERIALS RESEARCH CENTER
ROLLA, MO 65401-0249

Phone: 573-341-4383
Fax: 573-341-2071
Email: JSWITZER@UMR.EDU

Participation: Discussion Ldr

YONGSUG TAK
INHA UNIVERSITY
CHEMICAL ENG. DEPT.
253 YONGHYUN-DONG
INCHON, 402-751
KOREA

Phone: 82-32-8607471
Fax: 82-32-8660587
Email: YSTAK@MUNHAK.INHA.AC.KR

Participation: Poster Presenter

NAO TAKANO
WASEDA UNIVERSITY
DEPT OF APPLIED CHEMISTRY
SCHOOL OF SCIENCE & ENGINEERING
SHINJUKU, TOKYO, 169-8555
JAPAN

Phone: 81-352863202
Fax: 81-332052074
Email: 698J5052@MN.WASEDA.AC.JP

Participation: Poster Presenter

JAN B TALBOT
UNIVERSITY OF CALIFORNIA, SAN DIEGO
DEPT OF AMES/CHEMICAL ENGINEERING
9500 GILMAN DRIVE
LA JOLLA, CA 92093-0411

Phone: 619-534-3176
Fax: 619-534-4543
Email: JTALBOT@UCSD.EDU

Participation: Discussion Ldr

JO A TANZER
ARGONNE NATIONAL LABORATORY/UIUC
9700 SOUTH CASS AVENUE
CHEMICAL TECHNOLOGY DIV., BLDG. 205
ARGONNE, IL 60439

Phone: 630-252-4353
Fax: 630-252-9373
Email: TANZER@ANL.GOV

Participation: Poster Presenter

PAUL C TRULOVE
US NAVAL ACADEMY
CHEMISTRY DEPARTMENT
572 HOLLOWAY ROAD
ANNAPOLIS, MD 21402-5026

Phone: 410-293-6610
Fax: 410-293-2218
Email: TRULOVE@NADN.NAVY.MIL

Participation: Poster Presenter

VLADIMIR TSIONSKY
TEL-AVIV UNIVERSITY
SCHOOL OF CHEMISTRY
RAMAT-AVIV 69978
TEL-AVIV, 69978
ISRAEL

Phone: 972-3-6407737
Fax: 972-3-6409293
Email: TSIONSKY@POST.TAU.AC.IL

Participation: Attendee

KRIS VARAZO
THE UNIVERSITY OF GEORGIA
DEPT. OF CHEMISTRY

Phone: 706-542-9453
Fax: 706-542-9454
Email: VARAZO@SUNCHEM.CHEM.UGA.EDU

ATHENS, GA 30602

Participation: Poster Presenter

IGNACIO VILLEGAS
THE UNIVERSITY OF NEW MEXICO
DEPARTMENT OF CHEMISTRY
CLARK HALL 103
ALBUQUERQUE, NM 87131-1096

Phone: 505-277-5328
Fax: 505-277-2609
Email: VILLEGAS@UNM.EDU

Participation: Poster Presenter

MICHAEL G VUCICH
WEIRTON STEEL CORPORATION
115 FOREST ROAD

Phone: 304-723-2342
Fax:
Email:

WEIRTON, WV 26062

Participation: Attendee

TRAVIS L WADE
UNIVERSITY OF GEORGIA
DEPT. OF CHEMISTRY
1001 CEDAR STREET
ATHENS, GA 30602

Phone: 706-542-9453
Fax: 706-542-9454
Email: WADE@SUNCHEM.CHEM.UGA.EDU

Participation: Poster Presenter

RUILIN WANG
THE UNIVERSITY OF BATH
CHEMISTRY DEPARTMENT
CLAVERTON DOWN
BATH, BA2 7AY
UK

Phone: 44-1225826826
Fax: 44-1225826231
Email: R.WANG@BATH.AC.UK

Participation: Attendee

LINDELL C WARD
UNIVERSITY OF GEORGIA
DEPT. OF CHEMISTRY

ATHENS, GA 30602

Phone: 706-542-9453
Fax: 706-542-9454
Email: LWARD@SUNCHEM.CHEM.UGA.EDU

Participation: Poster Presenter

HIDETO WATANABE
KANTO GAKUIN UNIVERSITY
4834 MUTSUURA KANAZAWA-KU

YOKOHAMA CITY,
JAPAN

Phone: 81-457867156
Fax: 81-457848153
Email: HONMA@KANTO.GAKUIN.AR.JP

Participation: Attendee

CHARLES M WATSON
UNIVERSITY OF MAINE
LAB. FOR SURFACE SCI. AND TECH.
DEPT. OF CHEMISTRY
ORONO, ME 04469

Phone: 207-581-1181
Fax: 207-581-2255
Email: CWATSO51@MAINE.MAINE.EDU

Participation: Poster Presenter

KONRAD G WEIL
PENN STATE UNIVERSITY
METALS SCIENCE & ENGINEERING PROGRAM
209 STEIDLE BUILDING
UNIVERSITY PARK, PA 16802-5006

Phone: 814-863-7527
Fax: 814-865-2917
Email: AXP115@PSU.EDU

Participation: Speaker

ALAN WEST
COLUMBIA UNIVERSITY
DEPARTMENT OF CHEMICAL ENGINEERING
918 MUDD BUILDING
NEW YORK, NY 10027

Phone: 212-854-4452
Fax: 212-854-3054
Email: ACW17@COLUMBIA.EDU

Participation: Speaker

RALPH E WHITE
UNIVERSITY OF SOUTH CAROLINA
DEPARTMENT OF CHEMICAL ENGINEERING
SWEARINGEN ENGINEERING CENTER
COLUMBIA, SC 29208

Phone: 803-777-3270
Fax: 803-777-8265
Email: REW@SC.EDU

Participation: Attendee

GINA WHITNEY
IBM CORPORATION
5600 COTTLE ROAD

SAN JOSE, CA 95193

Phone: 408-256-4498
Fax: 408-256-5151
Email: gwhitney@us.ibm.com

Participation: Discussion Ldr

CHYANG J WU
U.S. STEEL GROUPS
A DIVISION OF USX
4000 TECH CENTER DRIVE
MONROEVILLE, PA 15146

Phone: 412-825-2399
Fax: 412-825-2919
Email: CJWU@USS.COM

Participation: Attendee

YUNG-HERNG YAU
BETHLEHEM STEEL CO.
HOMER RESEARCH LAB.

BETHLEHEM, PA 18016

Phone: 610-694-1431
Fax: 610-694-1739
Email:

Participation: Attendee

GE YI
UNIVERSITY OF BRISTOL
H.H. WILLS PHYSICS LAB.
TYNDALL AVENUE
BRISTOL, AVON BS8 1TL
UK

Phone: 44-117-9289000
Fax: 44-117-9255624
Email: GE.YI@BRISTOL.AC.UK

Participation: Poster Presenter

OSNAT YOUNES
TEL AVIV UNIVERSITY
SCHOOL OF CHEMISTRY
RAMAT-AVIV 69978
TEL-AVIV, 39040
ISRAEL

Phone: 972-3-6407587
Fax: 972-3-6409293
Email: younes@post.tau.ac.il

Participation: Poster Presenter

GIOVANNI ZANGARI
UNIVERSITY OF ALABAMA
MTE DEPT.
P.O. BOX 870202
TUSCALOOSA, AL 35487

Phone: 205-348-7074
Fax: 205-348-2164
Email: GZANGARI@COE.ENG.UA.EDU

Participation: Attendee

CHRISTINE ZELL
UNIV. OF KARLSRUHE

PHYSICAL CHEMISTRY DEPT.

KARLSRUHE, D 76128
GERMANY

Phone: 49-721-6082921
Fax: 49-721-6084856
Email: ZELL@IPCLIBML.CHEMIE.UNI-KARLSRU

Participation: Speaker

YUN ZHANG
LUCENT TECHNOLOGIES INC.
MEMBER OF TECHNICAL STAFF
ROOM 2D-218, 600 MOUNTAIN AVENUE
MURRAY HILL, NJ 07974

Phone: 908-582-5215
Fax: 908-582-6700
Email: YZHANG@LUCENT.COM

Participation: Attendee

JOERG ZIEGLER
UNIVERSITY OF ULM
DEPARTMENT OF ELECTROCHEMISTRY

ULM, 89069
GERMANY

Phone: 49-7315025425
Fax: 49-7315025409
Email: JOERG.ZIEGLER@CHEMIE.UNI-ULM.DE

Participation: Speaker

GALIT ZILBERMAN
TEL AVIV UNIVERSITY
FACULTY OF EXACT SCIENCE
SCHOOL OF CHEMISTRY
RAMAT AVIV, TEL AVIV 69978
ISRAEL

Phone: 972-3-6407737
Fax:
Email: GALITZ@POST.TAU.AC.IL

Participation: Attendee