

SYMPOSIUM V

Materials Education: New Tools and Resources

Symposium V: Materials Education: New Tools and Resources

Level 2, Room 206

Mon, 29-Jun-09	Tue, 30-Jun-09	Wed, 1-Jul-09	Thu, 2-Jul-09	Fri, 3-Jul-09
	(08:30 - 09:15) Plenary Lecture 2 Peter Doherty	(08:30 - 09:15) Plenary Lecture 4 John Pendry	(08:30 - 09:15) Plenary Lecture 6 Hartmut Michel	
(09:00 - 09:45) Opening Ceremony	(09:15 - 10:00) Plenary Lecture 3 Andrew Wee	(09:15 - 10:00) Plenary Lecture 5 Chad Mirkin	(09:15 - 10:00) Plenary Lecture 7 Akihisa Inoue	(09:00 - 09:45) Plenary Lecture 8 Jean-Marie Basset
(09:45 - 10:30) Plenary Lecture 1 Peter Gruenberg	(10:00 - 10:30) Coffee Break			(09:45 - 10:30) Plenary Lecture 9 Frederick Lange
(10:30 - 11:00) Coffee Break			/	(10:30 - 11:00) Coffee Break
(11:00 - 12:30) Session V-S1 New Curricula and Programs - I	(10:30 - 12:30) Session V-S4 "Big Picture" Issues for Education	(10:30 - 12:30) Session V-S5 New Resources	/	/
(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture James L. Hedrick	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Martyn Poliakoff	(12:30 - 14:00) Lunch (13:00 - 13:45) Theme Lecture Karl U. Kainer	(12:30 - 14:00) Lunch	(13:00 - 14:30) Closing & Poster Award Ceremony Lunch
(14:00 - 16:15) Session V-S2 New Curricula and Programs - II	(14:00 - 16:30) Session V-S5 Materials Education POSTER Session	(14:00 - 15:30) Session V-S7 Professional Development - I	(13:00 - 14:30) Panel Discussion	/
(16:15 - 16:30) Break	/	(15:30 - 17:30) Session V-S8 Professional Development - II	/	/
(16:30 - 18:00) Session V-S3 International Opportunities	/	/	/	/
	(18:00 - 20:00) Public Lectures @ UCC Peter Doherty Peter Gruenberg	(19:00 - 20:00) Public Lecture @ UCC Hartmut Michel	19:00 - 22:00 hrs Conference Banquet @ Suntec	

V-S1: New Curricula and Programs - I

Monday, 29 June 2009

11:00-12:30

Level 2, Room 206

Chair: J. Baglin & L. Bartolo

11:00 V-S1.1-2(KN) A00163-00333 pg V5
The Changing Face of Materials Education
Peter GOODHEW, Tim BULLOUGH

11:30 V-S1.3-4(KN) A00411-00793 pg V6
Towards an Integrated Science Programme
Andrew T. S. WEE

12:00 V-S1.5-6(IN) A01501-02612 pg V10
**Enabling Activities for Photovoltaics Industry
Expansion for the Asia-Pacific Region**
Richard CORKISH

V-S2: New Curricula and Programs - II

Monday, 29 June 2009

14:00-16:15

Level 2, Room 206

Chair: T. Bullough & D. McPhail

14:00 V-S2.1-2(IN) A02881-05039 pg V16
**New Bachelor of Philosophy Degree at the
Australian University: A New Way of Engaging High
Performance Students in Science and Engineering**
Chennupati JAGADISH

14:30 V-S2.3-4(IN) A00412-02398 pg V6
**Lifelong Learning Resources in Materials Education
for General and Professional Communities**
John BAGLIN

15:00 V-S2.5-6(IN) A00719-03552 pg V8
**Interdisciplinary Research and Education - UNM
IGERT Program on Integrating Nanotechnology with
Cell Biology and Neuroscience**
Marek OSINSKI, Michael WILSON,
Janet OLIVER, James THOMAS, Shannon
McCAMPBELL, Linda BUGGE

15:30 V-S2.7 (O) A00172-00692 pg V5
**Logistics of Nano-materials — New Training Course
in Aerospace Department of Moscow Institute of
Physics and Technology**
Michael VASILIEV

15:45 - 16:00 BREAK

16:00 V-S2.8-9(IN) A00609-01109 pg V7
**Development of a Multimedia Based Professional
Science Master's Program in Materials and Chemical
Synthesis**
M. Ishaque KHAN

V-S3: International Opportunities

Monday, 29 June 2009

16:30-18:00

Level 2, Room 206

Chair: N. Rutter & F. Rosei

16:30 V-S3.1-2(IN) A02980-05095 pg V16
**Some Aspects of International Collaboration in
Materials Science**
Anthony K. CHEETHAM

17:00 V-S3.3-4(IN) A02293-03911 pg V15
**Italy-USA Joint Doctorate Program in Materials for
Environment and Energy: Achievements and Hurdles**
Enrico TRAVERSA

17:30 V-S3.5-6(IN) A00672-01212 pg V8
**Materials Education "San Frontières" - The
Development of Opportunities for International
Exchanges and Joint Degree Programmes at Both
Undergraduate and Postgraduate Level**
David McPHAIL

V-S4: "Big Picture" Issues for Education

Tuesday, 30 June 2009

10:30-12:30

Level 2, Room 206

Chair: J. Baglin & C. Jagadish

10:30 V-S4.1-2(KN) A00492-00902 pg V7
**Thinking Big: Science and Math Education on the
Scale of Millions**
Merrilea MAYO

11:00 V-S4.3-4(KN) A01450-03799 pg V10
**Relations between Science Education, Research and
Economic Prosperity**
Hanns-Ulrich HABERMEIER

11:30 V-S4.5-6(IN) A01696-02951 pg V12
**Developing a Strategy for Materials Science in
Germany - Results of a Dephi-Study for a Materials
Roadmap**
Marion WEISSENBERGER-EIBL, Klemens JOACHIM

12:00 V-S4.7-8(IN) A01942-03349 pg V13
MATDL: The Materials Digital Library Pathway
Laura BARTOLO, James WARREN, Edwin GARCIA,
Lan LI, Cathy LOWE

V-S5: Materials Education [Poster Session]

Tuesday, 30 June 2009

14:00 - 16:30

Level 3, Gallery

V-S5.01(P) A02322-03973 pg V15

ET-based Course Connecting Teachers in a Classroom to the Real World

Byung-Kwon MOON, Chulhee KIM, Kyu-Seong CHO, Woo-Hun RYANG, Byoung Joon AHN

V-S6: New Resources

Wednesday, 1 July 2009

10:30-12:30

Level 2, Room 206

Chair: M. Mayo & M. Murr

10:30 V-S6.1-2(IN) A02020-03479 pg V13

Development and Use of Online Teaching and Learning Resources - The DoITPoMS Project

Noel RUTTER, Zoe BARBER, Bill CLYNE

11:00 V-S6.3-4(IN) A01507-02619 pg V11

Status of Materials Education for Graduate Students and Young Scientists in National Institute

Naoki KISHIMOTO

11:30 V-S6.5-6(IN) A00860-04997 pg V9

Re-Inventing Electronic Materials Laboratory Classes through Paintable Devices: Transistors So Simple, a Child Can Do It

Howard E. KATZ

12:00 V-S6.7-8(IN) A02196-03762 pg V14

Information Communication Technology Enabled Model for Quality Distance Learning

R.K. SINGH

V-S7: Professional Development - I

Wednesday, 1 July 2009

14:00-15:30

Level 2, Room 206

Chair: N. Kishimoto & T. Bullough

14:00 V-S7.1-2(IN) A01550-02700 pg V12

Life-Long Professional Learning for Professional Viability and Growth

Robert TUCKER, Robert FREED, John BAGLIN

14:30 V-S7.3-4(IN) A02064-03549 pg V14

Designing Undergraduate Courses that Explore the Interplay of Science, Technology, and Societal Impacts

Meredith MURR, Fiona GOODCHILD, Patrick McCRAY, Evelyn HU

15:00 V-S7.5-6(IN) A00499-00915 pg V7

Mentoring Early Career Researchers: How to Survive in the Multi Faceted World of Modern Science

Federico ROSEI

V-S8: Professional Development - II

Wednesday, 1 July 2009

15:30-17:30

Level 2, Room 206

Chair: L. Bartolo & J. Baglin

15:30 V-S8.1-2(IN) A00863-01498 pg V9

Mentoring New Faculty: Important Yet Often Ignored

Mufit AKINC

16:00 V-S8.3-4(IN) A02552-04364 pg V15

Living and Learning Experience — Character Education

Haydn CHEN

16:30 V-S8.5-6(IN) A00422-00849 pg V6

Training Programs of Advanced Sciences and Technology for High-school Science Teachers

Sang-Wook HAN, Jong-Sul JEON, Byoung Joon AHN

17:00 V-S8.7(O) A02245-03859 pg V15

Development of Lecture/Lab Materials for Nanotechnology and Chemistry Session of Advanced Science and Technology-oriented Education (ASTOE) Program in Korea

Wonghil CHANG, Kyukwan ZONG, Byoung Joon AHN

17:15 V-S8.8(O) A01054-01829 pg V10

Value Oriented Materials Science Education — The Need Of The Century

M.A. JOTHI RAJAN, Arockiam THADDEUS, S. VINCENT, T. MATHAVAN