

Nov. 20, 2011, Sunday

- 09:00 - 17:00 Short Course
- 16:00 - 20:30 Registration
- 18:30 - 20:30 Reception – *Banquet Hall*

Nov. 21, 2011, Monday

- 07:30 - 16:30 Registration
- 08:15 - 10:00 Opening Remark / Keynote Speech
- 10:45 - 17:45 Conference Session

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| Mon AM (Nov. 21) | Opening Remark / Keynote Speech (Conference Room: Banquet Hall) | | |
| 08:15-08:30 | President Jow-Lay Huang | | Opening Remark |
| 08:30-09:15 | Prof. Allan Matthews (<i>Keynote</i>) (Chair: Joe Greene) | Sheffield University UK | Optimising Tribo-contact Performance Using Plasma-based Surface Engineering Processes |
| 09:15-10:00 | Prof. David Ginley (<i>Keynote</i>) (Chair: Li-Chyong Chen) | National Renewable Energy Laboratory, USA | Thin Film PV Challenges for Terawatt Production - Emerging Technologies |
| 10:00-10:45 | Group Photos / Session Break | | |
| Mon AM (Nov. 21) | Symposium B: Nanostructured and nanocomposite coatings | | |
| | <i>Session Chair: Kao-Shuo Chang</i> | | Conference Room: Meeting Room (M105) |
| 10:45-11:15 | Prof. C.T. Kuo (<i>Invited</i>) | National Chiao Tung University Taiwan | Process development on high performance system chip with a MWCNTs-assisted sensing array for toxic gases |
| 11:15-11:30 | Noor Hamizah Khanis | University of Malaya Malaysia | Catalyst Free Carbon Nitride Nanostructures Prepared by rf-PECVD Technique on Hydrogenated Amorphous Carbon Template |
| 11:30-11:45 | Yuexiu Qiu | Central Iron and Steel Research Institute, China | Influence of sputtering conditions on VN film's mechanical performance |
| 11:45-12:00 | Q.F. Fang | Chinese Academy of Sciences China | Characterization of $W_{1-x}Ta_xNy$ hard films synthesized by direct current magnetron sputtering |
| 12:00-12:15 | Z.B. Qi | Xiamen University China | Influence of yttrium addition on microstructure and mechanical properties of ZrN coatings |
| 12:30-13:30 | Lunch Break | | |
| Mon PM (Nov. 21) | Symposium B: Nanostructured and nanocomposite coatings | | |
| | <i>Session Chair: C.T. Kuo</i> | | Conference Room: Meeting Room (M105) |
| 13:30-14:00 | Prof. Hao-Chih Liu (<i>Invited</i>) | National Cheng Kung University Taiwan | Fabrication and Characterization of Electroless Ni-P Films for Micro Heating Devices |
| 14:00-14:15 | Ramin Ghelichi | Politecnico di Milano University Italy | Residual stress measurement and grain size estimation in cold spray coating with numerical simulations |
| 14:15-14:30 | C. W. Chu | Metal Industries Research & Development Centre, Taiwan | Study of The Characteristics and Corrosion Behavior For The Zr-Based Metallic Glass Thin Film Fabricated by Ion Beam Process |
| 14:30-14:45 | Kou-Chen Liu | Chang Gung University Taiwan | Effect of ITO electrode with different oxygen contents on the electrical characteristics of HfO _x RRAM devices |
| 14:45-15:00 | Wen Hsuan Chao | Industrial Technology Research Institute, Taiwan | Enhanced Thermoelectric Properties of Bi ₂ Te ₃ Doping Zn ₄ Sb ₃ by Combinatorial Approach |
| 15:30-16:00 | Session Break | | |
| Mon PM (Nov. 21) | Symposium B: Nanostructured and nanocomposite coatings | | |
| | <i>Session Chair: Hao-Chih Liu</i> | | Conference Room: Meeting Room (M105) |
| 16:00-16:30 | Prof. Jinn P. Chu (<i>Invited</i>) | National Taiwan University of Science and Technology Taiwan | Metallic-Glass Films for Fatigue-property Improvements |
| 16:30-16:45 | Lin Chen | Fudan University China | Investigation of Current Controlled Multilevel Resistance Switching in Atomic Layer Deposited NbAlO Films as Memristors |
| 16:45-17:00 | Chih Ju Lin | Chang Gung University Taiwan | The ZrO ₂ Charge Trapping Layer in Flash Memory Applications |

Nov. 22, 2011, Tuesday

- 07:30-16:30 Registration
- 08:15-10:30 Keynote Speech
- 11:00-12:15 Conference Session
- 12:15-14:15 Poster Session

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| Tue AM (Nov. 22) | Keynote Speech (Conference Room: Banquet Hall) | | |
| 08:15-09:00 | Prof. Hans Hofsäss (<i>Keynote</i>) (Chair: Jyh-Ming Ting) | University of Goettingen Germany | Synthesis of Nanostructured Films by Self-organization |
| 09:00-09:45 | Prof. Stan Veprek (<i>Keynote</i>) (Chair: Fu-Hsing Lu) | Technical University Munich Germany | Design Concept for Hard and Superhard Nano-Structured Coatings, the Critical Parameters for their Preparation and Industrial Applications |
| 09:45-10:30 | Prof. Sam Zhang (<i>Keynote</i>) (Chair: Aleksey Yerokhin) | Nanyang Technological University Singapore | Toughness evaluation of hard coatings and thin films |
| 10:30-11:00 | Session Break | | |
| Tue AM (Nov. 22) | Symposium B: Nanostructured and nanocomposite coatings | | |
| | <i>Session Chair: Hao-Chih Liu</i> | | Conference Room: Meeting Room (M105) |
| 11:00-11:30 | Prof. Jai-Lin Tsai (<i>Invited</i>) | National Chung Hsing University Taiwan | Effects of grain boundary materials on perpendicular FePt films |
| 11:30-11:45 | Kee Wah Chan | University of Malaya Malaysia | Growth of Gold Nanoparticles Embedded in the nc-Si:H Film on Dielectric and Crystal Silicon Surface |
| 11:45-12:00 | In Keun Jung | Yonsei University Korea | A study on the properties of Zr doped γ -Al ₂ O ₃ aerogel synthesized by using solvothermal drying |
| 12:15-14:15 | Lunch Break Poster Session (Symposium A - Symposium F) | | |
| 14:30-18:30 | Half Day Tour | | |
| 19:00-22:00 | Banquet (Banquet Hall) | | |

Nov. 23, 2011, Wednesday

- 07:30-12:00 Registration
- 08:15-10:30 Keynote Speech
- 11:00-15:00 Conference Session

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| Wed AM (Nov. 23) | Keynote Speech (Conference Room: Banquet Hall) | | |
| 08:15-09:00 | Dr. Kuei-Hsien Chen (<i>Keynote</i>) (Chair: Jow-Lay Huang) | National Taiwan University Taiwan | Nanomaterials for Hydrogen Energy Conversion |
| 09:00-09:45 | Prof. Yury Gogotsi (<i>Keynote</i>) (Chair: Masahiro Yoshimura) | Drexel University USA | Carbide-Derived Carbon Films for Capacitive Energy Storage |
| 09:45-10:30 | Prof. J.G. Duh (<i>Keynote</i>) (Chair: Ming-Show Wong) | National Tsing Hua University Taiwan | Quest for Multi-functional Coatings |
| 10:30-11:00 | Session Break | | |
| Wed AM (Nov. 23) | Symposium B: Nanostructured and nanocomposite coatings | | |
| | <i>Session Chair: Jai-Lin Tsai</i> | | Conference Room: Meeting Room (M105) |
| 11:00-11:30 | Prof. G. F. Iriarte (<i>Invited</i>) | Polytechnic University of Madrid Spain | AlN/diamond heterostructures for SAW resonators above 10 GHz |
| 11:30-11:45 | Shang-Jui Chiu | National Tsing Hua University Taiwan | Effect of temperature on the structure and ferroelectric property of La-doped BiFeO ₃ /SrTiO ₃ artificial superlattice structure by rf sputtering |
| 11:45-12:00 | Yen-Ting Liu | National Chiao Tung University Taiwan | Fabrication and ferroelectric property of BiFeO ₃ /LaNiO ₃ artificial superlattice structures grown by RF sputtering |
| 12:00-12:15 | Jing-Yu Chen | National Chiao Tung University Taiwan | Electroless deposition of Ru films on non-conducting substrates |
| 12:30-13:30 | Lunch Break | | |
| 15:00 | Conference Adjourn | | |