

第三十四屆台灣顯微鏡學會學術研討會  
材料物理與生物醫農組 學生論文海報競賽

材料物理組

<b>M-P-01</b>	<p><b>TRANSMISSION ELECTRON MICROSCOPY STUDY OF THE STABILITY OF SILVER NANOWIRES</b></p> <p>Chia-Hao Yu (余家濠) and Cheng-Yen Wen (溫政彥)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-02</b>	<p><b>CHARACTERIZATION OF ULTRA-THIN NI SILICIDE FILM BY STEM-EELS</b></p> <p>Chien-Ting Wu (吳建霆), Yao-Jen Lee (李耀仁)</p> <p>National Nano Device Laboratories, National Applied Research Laboratories, Hsinchu City, Taiwan</p>
<b>M-P-03</b>	<p><b>ELECTRON MICROSCOPY ANALYSIS OF SIGE ALLOY AND SIGE/SI AXIAL HETEROJUNCTION NANOWIRE STRUCTURES</b></p> <p>Yun-Yi Tsai (蔡昀嶧), Sheng-You Taso (曹勝宥), and Cheng-Yen Wen (溫政彥)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-04</b>	<p><b>THE INVESTIGATION IN YIELD STRENGTH OF NB-MO LOW CARBON BAINITIC STRIP WITH AGING PROCESS</b></p> <p>Bo-Ming Huang (黃柏銘),<sup>1</sup> Hung-Wei Yen(顏鴻威),<sup>2</sup> Simon P. Ringer,<sup>2</sup> Ya-Ling Chang (張雅齡),<sup>1</sup> Yu-Chuan Chien (簡佑全),<sup>1</sup> and Jer-Ren Yang (楊哲人),<sup>1</sup></p> <p><sup>1</sup>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p> <p><sup>2</sup> Australian Centre for Microscopy and Microanalysis, The University of Sydney, 2006, NSW, Australia</p>
<b>M-P-05</b>	<p><b>IN-SITU ENGINEERING AND CHARACTERIZATION OF GRAPHENE IN TEM</b></p> <p>Chia-Hao Tu (涂嘉豪)<sup>1</sup>, Jing-Guo Wen (文建國)<sup>2</sup>, Dean Miller<sup>2</sup>, and Chuan-Pu Liu (劉全璞)<sup>1</sup></p> <p><sup>1</sup>Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan</p> <p><sup>2</sup> Electron Microscopy Center, Argonne National Laboratory, Illinois, USA</p>
<b>M-P-06</b>	<p><b>STRUCTURAL INVESTIGATION OF ZNO:AL FILMS DEPOSITED ON THE SI SUBSTRATES BY RADIO FREQUENCY MAGNETRON SPUTTERING</b></p> <p>Yi-Yan Chen (陳苡諺),<sup>1</sup> Jer-Ren Yang (楊哲人),<sup>1</sup> Shao-Liang Cheng (鄭紹良),<sup>2</sup> and Makoto Shiojiri<sup>3</sup></p> <p><sup>1</sup> Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>

	<p><sup>2</sup> Department of Chemical and Materials Science Engineering, National Central University, Taoyuan, Taiwan</p> <p><sup>3</sup> Professor Emeritus of Kyoto Institute of Technology, 1-297 Wakiyama, Kyoto, Japan</p>
<b>M-P-07</b>	<p><b>VERTICALLY-ALIGNED ZINC OXIDE NANOWIRE GROWTH AT LOW TEMPERATURES</b></p> <p>Kuan-Hung Chen (陳冠宏), Yun-Yi Tsai (蔡昀嶧), Chia-Hao Yu (余家濠), and Cheng-Yen Wen (溫政彥)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-08</b>	<p><b>ATOMIC-SCALE PROBING OF THE CHARGE DISTRIBUTION CHARACTERISTICS AT THE OXIDE INTERFACES</b></p> <p>Ching-Pin Chang (張景斌),<sup>12</sup> Ming-Wen Chu (朱明文),<sup>1</sup> Jauyn Grace Lin (林昭吟),<sup>1</sup> Su-Ling Cheng (鄭淑齡),<sup>12</sup> Jer-Ren Yang (楊哲人),<sup>2</sup> and Cheng-Hsuan Chen (陳正弦)<sup>1</sup></p> <p><sup>1</sup> Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan</p> <p><sup>2</sup> Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-09</b>	<p><b>FABRICATION AND STUDY OF HIGH ENERGY RESOLUTION SILICON DRIFT DETECTOR FOR ENERGY DISPERSIVE X-RAY SPECTROMETER</b></p> <p>Chiao-Chun Hsu (許喬竣),<sup>1</sup> Fan-Gang Tseng (曾繁根),<sup>1</sup> Fu-Rong Chen (陳福榮),<sup>1</sup> Chih-Hao Lee (李志浩),<sup>1</sup> Yun-Ju Chuang (莊昀儒)<sup>2</sup></p> <p><sup>1</sup>Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan</p> <p><sup>2</sup>Department of Biomedical Engineering, Ming Chuan University, Taipei, Taiwan</p>
<b>M-P-10</b>	<p><b>DIRECT IMAGING OF ATOMIC STRUCTURE OF TIN/MGO(001) INTERFACE BY CS-CORRECTED STEM</b></p> <p>Lin-Lung Wei (魏伶容), Hien Do (杜氏賢), Li Chang (張立)</p> <p>Department of Materials Science and Engineering, National Chiao Tung University, Hsinchu, Taiwan</p>
<b>M-P-11</b>	<p><b>CHARGE-DENSITY WAVE AND DOMAIN-CONTRAST REVERSALS IN A THREE-DIMENSIONAL MATERIAL SYSTEM OBSERVED BY TRANSMISSION ELECTRON MICROSCOPY</b></p> <p>Ming-Hao Lee (李明浩), Cheng-Hsuan Chen (陳正弦), and Ming-Wen Chu (朱明文)</p> <p>Center for Condensed Matter Sciences, National Taiwan University, Taipei 106, Taiwan</p>
<b>M-P-12</b>	<p><b>THE GROWTH OF LENTICULAR MARTENSITE IN AISI 440C STAINLESS STEEL</b></p> <p>Ya-Ling Chang (張雅齡), Yi-Ling Tsai (蔡宇庭), Po-Yu Chen (陳伯宇), and Jer-Ren Yang (楊哲人)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei,</p>

	Taiwan
<b>M-P-13</b>	<p><b>MICROSCOPIC CHARACTERIZATION FOR THE ISLAND GROWTH OF GRAPHENE ON COPPER SUBSTRATES BY CHEMICAL VAPOR DEPOSITION</b></p> <p>Ren-Jie Chang (張仁頡), Yun-Yi Tsai (蔡昀嶧), and Cheng-Yen Wen (溫政彥)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-14</b>	<p><b>INVESTIGATION ON THE DISLOCATION STRUCTURES OF 2205 DUPLEX STAINLESS STEEL BY ANNULAR DARK FIELD IMAGING</b></p> <p>Yu-Ting Tsai (蔡宇庭), Yi-Chieh Hsieh (謝亦傑) and J.R. Yang (楊哲人)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-15</b>	<p><b>TRANSMISSION ELECTRON MICROSCOPY ANALYSES FOR TiO<sub>2</sub> THIN FILMS GROWN BY ATOMIC LAYER DEPOSITION FOR RESISTANCE SWITCHING RANDOM ACCESS MEMORIES</b></p> <p>Shih-Chun Chao (趙士鈞) and Cheng-Yen Wen (溫政彥)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-16</b>	<p><b>EFFECT OF MARTENSITE VOLUME FRACTION AND PLASTICITY ON THE MECHANICAL PROPERTIES OF DUAL-PHASE (DP) STEEL</b></p> <p>Cheng-Han Li (李承翰),<sup>1</sup> Shao-Pu Tsai (蔡劭璞),<sup>1</sup> Chih-Hung Jen (鄭至閔),<sup>1</sup> Yuan-Tsuong Wang (王元聰),<sup>2</sup> Ching-Yuan Huang (黃慶淵),<sup>2</sup> and Jer-Ren Yang (楊哲人)<sup>1</sup></p> <p><sup>1</sup>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p> <p><sup>2</sup>Department of Research and Development, China Steel Corporation, Kaohsiung, Taiwan</p>
<b>M-P-17</b>	<p><b>DISLOCATION SUBSTRUCTURE EVOLUTION IN FERRITE OF DP STEELS UNDER DEFORMATION</b></p> <p>Chih-Hung Jen (鄭至閔),<sup>1</sup> Shao-Pu Tsai (蔡劭璞),<sup>1</sup> Yu-Ting Tsai (蔡宇庭),<sup>1</sup> Bo-Ming Huang (黃柏銘),<sup>1</sup> Yuan-Tsuong Wang (王元聰),<sup>2</sup> Ching-Yuan Huang (黃慶淵),<sup>2</sup> and Jer-Ren Yang (楊哲人)<sup>1</sup></p> <p><sup>1</sup>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p> <p><sup>2</sup>Department of Research and Development, China Steel Corporation, Kaohsiung, Taiwan</p>
<b>M-P-18</b>	<p><b>FABRICATION OF TWO-DIMENSIONAL POSITION SENSITIVITY SINGLE-SIDED SILICON STRIP-PIXEL DETECTOR</b></p> <p>Yu-Ting Liao (廖鈺婷),<sup>1</sup> Fan-Gang Tseng (曾繁根),<sup>1</sup> Fu-Rong Chen (陳福榮),<sup>1</sup> Chih-Hao Lee (李志浩),<sup>1</sup> Yun-Ju Chuang (莊昀儒)<sup>2</sup></p> <p><sup>1</sup>Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan</p>

	<sup>2</sup> Department of Biomedical Engineering, Ming Chuan University, Taipei, Taiwan
<b>M-P-19</b>	<p><b>RESISTIVE MEMORY DEVICES WITH HIGH SWITCHING ENDURANCE THROUGH SINGLE FILAMENTS IN BI-CRYSTAL CUO NANOWIRES</b></p> <p>Yen-Chih Chen (陳彥志), Chia-Hao Tu (涂嘉豪), Che-Chia Chang (張哲嘉), Chao-Hung Wang (王超鴻), Yi-Chang Li (李奕鋤), and Chuan-Pu Liu (劉全璞)</p> <p>Department of Materials Science and Engineering, National Cheng Kung University, Tainan 70101, Taiwan</p>
<b>M-P-20</b>	<p><b>GROWTH OF GRAPHENE ON EPITAXIAL NICKEL DISILICIDE FILMS</b></p> <p>Chia-Hao Lee (李家豪) and Cheng-Yen Wen (溫政彥)</p> <p>Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan</p>
<b>M-P-21</b>	<p><b>SI<sub>3</sub>N<sub>4</sub> THICKNESS EFFECT OF GROEL/GNP IN WET CELL TEM OBSERVATION</b></p> <p>Chih-Hsiang Kuo (郭至翔),<sup>1</sup> Chun-Ying Tsai (蔡俊穎),<sup>1</sup> Yuan-Chih Chang (張淵智)<sup>2</sup> Hsin-Yu Lin (林信余),<sup>1</sup> Yu-Hung Wong (翁宇弘)<sup>1</sup>, Fu-Rong Chen (陳福榮)<sup>1</sup> and Fan-Gang Tseng (曾繁根)<sup>1</sup></p> <p><sup>1</sup>Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan <sup>2</sup>Institute of Cellular and Organismic Biology, Academia Sinica, Taipei, Taiwan</p>
<b>M-P-22</b>	<p><b>HIGH-RESOLUTION TEM STUDY OF MICROSTRUCTURAL EVOLUTION OF TI-6AL-4V ALLOY FOLLOWING THERMAL HYDROGENATION PROCESSING</b></p> <p><sup>1</sup>Wang, Le-Min (王樂民), <sup>2</sup>Tsai, Chih-Jen (蔡智仁)</p> <p><sup>1</sup>Department of Power Vehicle and Systems Engineering, Chung Cheng Institute of Technology, National Defense University, Taoyuan, Taiwan <sup>2</sup>School of Defense Science, Chung Cheng Institute of Technology, National Defense University, Taoyuan, Taiwan</p>
<b>M-P-23</b>	<p><b>DEVELOPMENT OF IN-SITU WET-CELL ELECTRON MICROSCOPE HOLDER FOR OXYGEN NANO-BUBBLES BY PLATINUM</b></p> <p>H.T. Zheng (鄭弘田)<sup>1</sup>, S. Y. Liu (劉鈺誼)<sup>1</sup>, C.T. Tsai (蔡承廷)<sup>2</sup>, T. W. Haung (黃祖緯)<sup>1</sup>, F. G. Tseng (曾繁根)<sup>1</sup> and F. R. Chen (陳福榮)<sup>1</sup></p> <p><sup>1</sup> Engineering and System Science Department, National Tsing Hua University, Hsinchu, Taiwan <sup>2</sup>Dept. of Material Science and Engineering, National Chung Hsing University, Tai-Chung, Taiwan</p>
<b>M-P-24</b>	<p><b>E-BEAM CROSSLINKING AND THERMAL DEGRADATION OF HYDROGEL UNDER ELECTRON MICROSCOPE</b></p> <p>Yu-Hung Wong (翁宇弘)<sup>†1</sup>, Chih-Hsiang Kuo (郭至翔)<sup>1</sup>, Tsu-wei Huang (黃祖緯)<sup>1</sup>, Shih-Yi Liu (劉鈺誼)<sup>1</sup>, Hsin-Yi Hsieh<sup>23</sup> (謝馨儀), Fu-Rong Chen (陳福榮)<sup>1</sup> and Fan-Gang Tseng (曾繁根)<sup>14</sup></p>

	<sup>1</sup> Department of Engineering and System Science, National Tsing Hua University, Taiwan <sup>2</sup> Department of Mechanical Engineering, National Taiwan University, Taiwan <sup>3</sup> Institute of NanoEngineering and MicroSystems, National Tsing Hua University, Taiwan <sup>4</sup> Division of Mechanics, Research Center for Applied Science, Academia Sinica, Taiwan
<b>M-P-25</b>	<b>INTEGRATION OF A LIGHT MICROSCOPE INTO A DESKTOP SCANNING ELECTRON MICROSCOPE</b> Lian-Sheng Tsai (蔡濂聲), <sup>1</sup> Yi-Chang Chen (陳義昌), <sup>2</sup> Fu-Rong Chen (陳福榮), <sup>3</sup> and Yi-Sha Ku (顧逸霞) <sup>2</sup> <sup>1</sup> Department of Science and Technology of Synchrotron Light Source, National Tsing Hua University, Hsinchu, Taiwan <sup>2</sup> Center for Measurement Standards, Industrial Technology Research Institute <sup>3</sup> Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan
<b>M-P-26</b>	<b>SI EFFECT ON STRENGTHENING OF DUAL-PHASE STEELS</b> Shao-Pu Tsai (蔡劭璞), <sup>1</sup> Chih-Hung Jen (鄭至閔), <sup>1</sup> Yuan-Tsuong Wang (王元聰), <sup>2</sup> Ching-Yuan Huang (黃慶淵), <sup>2</sup> and Jer-Ren Yang (楊哲人) <sup>1</sup> <sup>1</sup> Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan <sup>2</sup> Department of Research and Development, China Steel Corporation, Kaohsiung, Taiwan

生物醫農組

<p><b>B-P-01</b></p>	<p><b>INFLORESCENCE AND FLORAL DEVELOPMENT IN TROCHODENDRA ARALIOIDES SIEBOLD &amp; ZUCC. (TROCHODENDRACEAE)</b>          Yu-Chwen Hsu (許毓純)<sup>1,2</sup>, Wann-Neng Jane (簡萬能)<sup>3</sup> and Su-Hwa Chen (陳淑華)<sup>1</sup>  <sup>1</sup>Institute of Ecology and Evolutionary Biology, National Taiwan University, Taipei, Taiwan  <sup>2</sup>Collection Management Department, National Taiwan Museum, Taipei, Taiwan  <sup>3</sup>Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan</p>
<p><b>B-P-02</b></p>	<p><b>BLUE IRIDESCENCE IN AQUATIC AROID, <i>Bucephalandra</i></b>          FAN, Kang-Yu (范綱祐) and KUO-HUANG, Ling-Long (黃玲瓏)          Institute of Ecological and Evolutionary Biology, National Taiwan University, Taipei, Taiwan</p>
<p><b>B-P-03</b></p>	<p><b>DEVELOPMENT OF FEMALE GAMETOPHYTE AND YOUNG SEED OF <i>NEONOTONIA WIGHTII</i> (WIGHT &amp; ARN.) J.A. LACKEY (LEGUMINOSAE)</b>          Tian-Jyun Liu (劉恬君)<sup>1</sup>, Chi-Chih Wu (吳啟智)<sup>2</sup>, and Ling-Long Kuo-Huang (黃玲瓏)<sup>1</sup>  <sup>1</sup> Institute of Ecology and Evolutionary, National Taiwan University, Taipei, Taiwan  <sup>2</sup> Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan</p>
<p><b>B-P-04</b></p>	<p><b>REVEALING a 2-nm DOMAIN in a 13-nm PROTEIN COMPLEX by IN-FOCUS CRYO ELECTRON MICROSCOPY</b>  <sup>1</sup>WU, Yi-Min (吳逸民), <sup>1</sup>CHANG, Jen-Wei(張荏韋), <sup>2</sup>NAGAYAMA, Kuniaki(永山國昭), <sup>2</sup>MURATA, Kazuyoshi(村田和義) and <sup>1</sup>CHANG, Wei-Hau(章為皓)  <sup>1</sup>Institute of Chemistry, Academia Sinica, Taipei, Taiwan  <sup>2</sup>Division of Structural Biology, National Institutes of Physiology, Okazaki, Japan</p>
<p><b>B-P-05</b></p>	<p><b>CURRENT ADVANCE OF CRYO ELECTRON MICROSCOPY IN REACHING SUB-NANOMETER RESOLUTION PROTEIN STRUCTURES</b>  <sup>157</sup>CHANG, Wei-Hau (章為皓), <sup>2</sup>LIN, Frank (林全信), <sup>3</sup>CHEN, Fu-Rong (陳福榮), <sup>4</sup>MURATA, Kazuyoshi (村田和義), <sup>4</sup>NAGAYAMA, Kuniaki (永山國昭), <sup>5</sup>WANG, Chun-Hsiung (王俊雄), <sup>5</sup>WU, Yi-Min (吳逸民), <sup>5</sup>CHANG, Jen-Wei (張荏韋), <sup>5</sup>HUANG, Shih-Hsin (黃士忻), <sup>6</sup>HSIEH, Dai-Ni (謝岱霓), <sup>6</sup>TU, I-Ping (杜憶萍), <sup>7</sup>CHEN, Yi-Yun (陳怡云), <sup>7</sup>HWU, Yeukuang (胡宇光), <sup>7</sup>Li, Neil (李柏南), <sup>7</sup>Li, Ting-Kuo (李定國)  <sup>1</sup>Department of Biochemical Science and Technology, National Taiwan University, Taipei, Taiwan  <sup>2</sup>Department of Marine Science, National Sun Yat Sen University, Kaohsiung, Taiwan  <sup>3</sup>Department of Engineering System, National Tsing-Hua University, Hsinchu, Taiwan,  <sup>4</sup>Divion of Structural Biology, National Institutes of Physiology, Okazaki, Japan  <sup>5</sup>Institute of Chemistry, <sup>6</sup>Institute of Statistics and <sup>7</sup>Institute of Physics, Academia Sinica, Taipei, Taiwan</p>

**B-P-06**

**THE PRELIMINARY STUDY OF THE STRUCTURE OF *SAPINDUS MUKOROSSI* SEED AND ITS PHYSICAL DORMANCY MECHANISM**

<sup>1</sup>WANG, Ming-Wei (王名偉), <sup>1</sup>KUO-HUANG, Ling-Long (黃玲瓏) and <sup>2</sup>Ching-Te Chien (簡慶德)

<sup>1</sup>Institute of Ecology and Evolutionary Biology, National Taiwan University, Taipei, Taiwan

<sup>2</sup>Taiwan Forestry Research Institute, Taipei, Taiwan