PROGRAM TIME TABLE

Day 1 (21/11/2022)	**Arrivals at the Conference Venue**
13:00 - 18:00	Registration
18:00 – 19:00	Meeting of the International Advisory Board and the Key Scientific Program Committee
19:00 - 21:00	Welcome party for Invited speakers and International Advisory Board
Day 2 (22/11/2022)	**Conference** (1/2)
8:00 - 8:30	**Registration**
8:30 - 9:00	**Opening ceremony** **Chairmen: Wu-Ching Chou, Michael Lang** ▪ Sponsors remarks: 8:30 - 8:40: Nguyen Dang Khoa, Energy and Environment – LiB applications with PSA and XGT, Horiba Viet Nam ▪ Organizers remarks 8:40 - 8:50: Nguyen Huu Duc ▪ Keynote speeches by Chairmen 8:50 - 9:00: Wu-Ching Chou, Michael Lang
	Opening Plenary Session **Chairmen: Masato Yoshiya, Nguyen Nang Dinh**
9:00 - 9:30	Plenary talk **PL1** ***Akihide Kuwabara*** *Japan Fine Ceramics Center* First-principles calculations of defect formation behavior and ion dynamics in solid state ionics materials

9:30 - 10:00	Plenary talk **PL2** ***Yoon-Hwae Hwang, Hyung-Kook Kim and Dong-Myeong Shin*** *Pusan National University* Nanogenerators: self-powered energy for technology innovation		
10:00 - 10:30	~~Plenary talk **PL3**~~ **Cancel** ~~***Nguyen The Toan***~~ ~~*VNU-University of Science*~~ ~~Molecular understanding of protein structure and interaction related to Covid-19 and gout diseases by using computational biophysics~~		
10:30 - 11:00	Coffee break (1/3) Group photographs/photography of participant		
11:00 - 12:30	**Parallel sessions 1** (15)		
Time	**Section MM** Multiferroics and magnetic materials (1/3) **Chairmen: Bach Thanh Cong, Jehn Yih Juang**	**Section EE** Materials for energy and environment (1/2) **Chairmen: Yoon-Hwae Hwang, Masato Yoshiya**	**Section PH** Photonics and Hybrid Materials (1/2) **Chairmen: Mikhail Brik, Way-Faung Pong**
11:00 -11:20	**MM-I01** (Invited) ***Michael Lang, Christian Thurn, Paul Eibisch, et al.*** $PbCuTe_2O_6$ – a quantum spin liquid candidate showing ferroelectric order close to a quantum critical point	**EE-I01** (Invited) ***Nguyen Hoang Nam, Do Quang Loc, Phi Thi Huong et al.*** $CD4^+$ T cell counting using anti-CD4 antibody conjugated magnetic nanoparticles and microfluidic counter	**PH-I01** (Invited) ***Tomoyuki Yamamoto*** Local environment of emission center ions in phosphor materials
11:20-11:40	**MM-I02** (Invited) ***Yoshifuru Mitsui and Keiichi Koyama*** Application of magnetic field for selective reaction in magnetic alloys	**EE-I02** (Invited) ***Kei Nakayama, Ryo Ishikawa and Yuichi Ikuhara*** Structural analysis of battery materials by atomic-resolution scanning transmission electron microscopy	**PH-I02** (Invited) ***Michal Piasecki, Galyna Muronchuk, Andrzej Suchocki et al.*** Luminescence and non-linear optical properties at mid-infrared spectral range
11:40-12:00	**MM-I03** (Invited) ***Hajime Yamamoto***	**EE-I03** (Invited) ***Ho Won Jang***	**PH-I03** (Invited)

	Crystal structures and electronic properties of vanadium oxides	Si-based photoelectrodes for water splitting	***Huu-Quang Nguyen, My-Chi Nguyen and Jaebeom Lee*** Magnetoplasmonic core-shell nanowires: synthesis and self-assembly for structural colors and chiral metasurfaces	
12:00-12:15	**MM-O01** (Oral) ***Jiunn-Yuan Lin*** An emergent quasi-2D metallic state derived from the Mott insulator framework	**EE-O01** (Oral) ***Thi Thao Vu, Xuan Tung Nguyen, Dinh Tu Bui, et al.*** Review of Langmuir-Blodgett films of octadecylamine: Fabrication, properties, and application	**PH-O01** (Oral) ***Viet Tuyen Nguyen, Thi Ha Tran, Van Tan Tran, et al.*** Boosting surface enhanced Raman scattering from ZnO/Au nanorods by UV excitation	
12:15-12.30	**MM-O02** (Oral/Online) ***Yoyo Hinuma*** Deriving maximally orthogonalized supercells with given size	**EE-O02** (Oral) ***My-Chi Nguyen, Huu-Quang Nguyen and Jaebeom Lee*** Lanthanide-based magnetoplasmonic probes for highly sensitive aqueous copper(II) sensing	**PH-O02** (Oral) ***Chia-Chun Wei, Tung-Han Wu and Wen-Bin Jian*** Preparation of nanoparticulate WO_3/MoO_3 films for making electrochromic devices	
12:30 - 13:30	Lunch			
13:30 - 14:30	**Poster sesstions** Note: (i) All posters are requested to be in the A1 format; (ii) to be put on each panel from afternoon of Nov 21st and (iii) removed from the panel before lunch time of Nov 23rd			
- Best posters: 02 - Silver: 03 - Bronze: 05	**Section EE** **Materials for energy and environment** ***Chairmen:*** **Nguyen Dinh Lam, Chun-Liang Lin, Jin Young Kim** ***Codes:*** **EE-P01 - EE-P30** ***Location:*** **Ballroom 1**	**Section MM** **Multiferroics and magnetic materials** ***Chairmen:*** **Phan Bach Thang, Chung-Li Dong, Tetsuya Yokoi** ***Codes:*** **MM-P01 - MM-P30** ***Online:*** **MM-P01, P03, P08, P09, P13, P15**	**Section SD** **Spintronic materials and devices** ***Chairman:*** **Do Thi Huong Giang, Bernd Wolf** ***Codes*:** **SD-P01 - SD-P09** ***Location:*** **Ballroom 3**	**Section PH** **Photonics and Hybrid Materials** ***Chairman:*** **Nguyen Kien Cuong, Ho Won Jang** ***Codes:*** **PH-P01 - PH-P07** ***Location:*** **Ballroom 3**	**Section TC** **Theory and computation** ***Chairman:*** **Nguyen Quang Bau, Matthijs Jansen** ***Codes:*** **TC-P01 - TC-P07** ***Location:*** **Ballroom 3**

		Location: **Ballroom 2**			
	Best poster Awards Committee **- Chairman: Prof. Yoon-Hwae Hwang** **- Members:** Do Thi Huong Giang, Nguyen Dinh Lam, Phan Bach Thang, Chun-Liang Lin, Ray-Hua Horng, Chung-Li Dong, Susumu Fujii, Kei Nakayama, Tetsuya Yokoi, Jin Young Kim, Ho Won Jang, Bernd Wolf, Matthijs Jansen				

14:30 - 16:30	**Parallel sessions 2** (18)		
Time	**Section MM** Multiferroics and magnetic materials (2/3) **Chairmen: Kazunori Sato, Ray-Hua Horng**	**Section TC** Theory and computation (1/2) **Chairmen: Vu Ngoc Tuoc, Susumu Fujii**	**Section SD** Spintronic materials and devices (1/3) **Chairmen: Takashi Kimura, Sungkyun Park**
14:30-14:50	**MM-I04** (Invited) ***Jeehoon Kim*** Anomalous transport properties in a Weyl metal	**TC-I01** (Invited) ***Andreas Honecker*** Thermodynamic properties of the Shastry-Sutherland model for $SrCu_2(BO_3)_2$	**SD-I01** (Invited) ***Wataru Norimatsu*** Observation of flat band in millimeter-scale magic-angle twisted bilayer graphene
14:50-15:10	**MM-I05** (Invited) ***Bernd Wolf, Felix Spathelf, Jan Zimmermann et al.*** Tuning the ground state of strongly correlated $EuPd_2(Si_{1-x}Ge_x)_2$ using He-gas pressure	**TC-I02** (Invited) ***Koun Shirai*** The Activation Energy of Glass Transition	**SD-I02** (Invited) ***Chanyong Hwang*** Towards Magnetic Skyrmionics
15:10-15:30	**MM-I06** (Invited) ***Ivan Skorvanek, Branislav Kunca, Jozef Marcin et al.*** Soft magnetic Fe(Co)-based high Bs nanocrystalline alloys for applications at elevated temperatures	**TC-I03** (Invited) ***Masato Yoshiya, Tomofumi Hara, Wataru Sekimoto et al.*** Selective control of propagation-conduction of two different quantum waves by lattice imperfections: electrons and phonons	**SD-I03** (Invited) ***Bae Ho Park*** Neuromorphic devices based on electrochemical metallization and charge trapping
15:30-15:50	**MM-I07** (Invited) ***Way-Faung Pong*** X-ray spectro- and microscopic-techniques on novel materials	**TC-I04** (Invited / Online) ***Manh-Thuong Nguyen*** Computational approaches to study heavy element materials	**SD-I04** (Invited) ***Teruo Ono*** Superconducting diode effect in Rashba superlattice
15:50-16:10	**MM-I08** (Invited) ***Tahta Amrillah, My Ngoc Duong and Jenh-Yih Juang***	**TC-I05** (Invited) ***Tatsuya Yokoi, Yu Oshima and Katsuyuki Matsunaga***	**SD-I05** (Invited / Online) ***Takeshi Seki*** Enhanced anomalous Nernst effect in metallic superlattices

	Substrate polarity, phase stability, electronic structure and magnetic properties of multiferroic $YMnO_3$ thin films	Artificial-neural-network descriptor and interatomic potential for molecular simulations of lattice defects	
16:10-16:30	**MM-I09** (Invited) ***Masanobu Shiga, Takurou Harada, Tsubasa Teramoto et al.*** Point contact Andreev reflection spectroscopy on topological Kondo insulator SmB_6	**TC-O01** (Oral) ***Katsuhiro Suzuki, Takao Kotani and Kazunori Sato*** The first-principles analysis of multiplet excitations using QSGW	**SD-I06** (Invited) ***Hieu Ho, Hai Hoang, Minh-Hanh Pham and Hai Tran*** Extended X-ray absorption spectroscopy and Debye–Waller factor under pressure
16:30 - 16:45	Coffee break (2/3)		
16:50 - 18:30	**Parallel sessions 3** (21)		
Time	**Section MM** Multiferroics and magnetic materials (3/3) **Chairmen: Kei Nakayama, Thi Ngoc Anh Nguyen**	**Section TC** Theory and computation (2/2) **Chairmen: Tatsuya Yokoi, Vu Thanh Tra**	**Section SD** Spintronic materials and devices (2/3) **Chairmen: Nguyen Trong Tinh, Bae Ho Park**
16:50-17:10	**MM-I10** (Invited) ***Sungkyun Park and Sehwan Song*** Searching for the origin of magnetic inhomogeneity of FeRh film	**TC-I06** (Invited) ***Tien Quang Nguyen, Yusuke Nanba, Michihisa Koyama et al.*** Accelerating materials discovery using universal neural network potential and ab-initio calculations	**SD-I07** (Invited) ***Ray Hua Horng*** Material properties and growth mechanism of β-Ga_2O_3 epilayers grown on sapphire by metal organic chemical vapor deposition
17:10-17:30	**MM-I11** (Invited) ***Yoshishige Suzuki, Soma Miki, Ryo Ishikawa et al.*** Magnetic skyrmion for the Brownian computing	**TC-I07** (Invited) ***Susumu Fujii, Yuta Shimizu, Junji Hyodo et al.*** Exploration for non-perovskite proton-conducting oxides using high-throughput computation and machine learning	**SD-I08** (Invited/Online) ***Masashi Akabori*** Fabrication of quantum devices by fine sputtering using a focused ion beam with nitrogen gas field ion source

17:30-17:45	**MM-O03** (Oral) ***Yuichi Okazaki, Yushi Fujita, Hidenobu Murata et al.*** Bayesian optimization design of high entropy oxide for oxygen evolution catalysis	**TC-I08** (Invited) (*17:30-17:50*) ***Kazunori Sato, Genta Hayashi, Kazuma Ogushi et al.*** Computational materials design of high-entropy alloys based on FPKKR-CPA calculations and machine learning techniques	**SD-O01** (Oral) ***Ngoc Nam Ho, Katsuhiro Suzuki, Akira Masago et al.*** Solid-liquid structure of Cu2S: theoretical acanthite-like model for electronic and transport properties investigations
17:45-18:00	**MM-O04** (Oral) ***Ba Hung Tran and Yu-ichiro Matsushita*** Magnetocaloric effect from first-principles calculations and Monte Carlo simulations	**TC-I09** (Invited) (*17:50-18:10*) ***Huan Tran*** Accelerating materials science with artificial intelligence	**SD-O02** (Oral) ***Shiuanhuei Lin, Stefan Petrov and Vera Marinova*** Graphene supported liquid crystal phase retarders on rigid glass and flexible polydimethylsiloxane substrates
18:00-18:15	**MM-O05** (Oral) ***Phi Thi Huong, Bui Duc Tri, Nguyen Thi Thanh Van et. al*** Synthesis of bifunctional magnetic-plasmonic Fe_3O_4@SiO_2-Au nanoparticles by an ultrasound assisted chemical method	**TC-I10** (Invited) (*18:10-18:30*) ***Hirofumi Tanaka*** Material intelligence: in-materio reservoir computing devices composed by random network of nanoparticles	**SD-O03** (Oral) ***Chung Li Dong*** Advantages, Challenges and Opportunities of X-ray Absorption spectroscopy for advanced investigation of energy materials
18:15-18:30	**MM-O06** (Oral) ***Nguyen Duy Thien, Nguyen Quang Hoa, Vuong Van Hiep et al.*** Thermal evaporation synthesis and some properties of WO_3/ITO electrochromic thin films		**SD-O04** (Oral) ***Canh Tuan Nguyen, Nam Nguyen Phuong Hoai, Cuong Nguyen Duc et al.*** Fabricate electrospun nanofiber for rechargeable batteries
18:30-18:45	**MM-O07** (Oral) ***Thi Van Anh Nguyen and Duong Vu*** Fabrication of RuO_2 thin film for spin orbit torque – induced magnetization switching	**TC-O02** (Oral) ***Sena Hoshino, Yu Oshima, Tatsuya Yokoi et al.*** Carrier-trapping induced transformation of dislocation core structures in Zn compounds	**SD-O05** (Oral) ***Minh Nhat Dang, Surinder Singh, Thomas G. Pattison, et al.*** Is it possible to electropolish tungsten carbides?

19:30-21.30	Banquet		
Day 3 (23/11/2022):	**Conference** (2/2)		
08:00 - 09:45	**Parallel sessions 4** (18)		
Time	**Section EE** Materials for energy and environment (2/2) **Chairmen: Yoon-Hwae Hwang, Akihide Kuwabara**	**Section SD** Spintronic materials and devices (3/3) **Chairmen: Bui Dinh Tu, Huan Tran**	**Section PH** Photonics and Hybrid Materials (2/2) **Chairmen: Michal Piasecki, Ngac An Bang**
08:00-08:20	**EE-I04** (Invited) ***Jessiel Siaron Gueriba, Nur Ellina Annisa Salehuddin, Wilson Agerico Dino et al.*** Defluorination and adsorption of tetrafluoroethylene (TFE) on TiO_2(110) and Cr_3O_3(0001)	**SD-I09** (Invited/Online) ***Takashi Kimura*** Study of nano-scale heat transports using magneto-thermoelectric effects	**PH-I04** (Invited) ***Jin Young Kim*** High-performance colorful semitransparent organic solar cells with etalon electrodes
08:20-08:40	**EE-I05** (Invited) ***Moongyu Jang*** Single cell capacitance measurement of NIH 3T3 cell using impedance biosensor	**SD-I10** (Invited/Online) ***Tho Duc Nguyen*** Sub-second and ppm-level optical sensing of hydrogen using templated control of nano-hydride geometry and magnetic composition	**PH-I05** (Invited) ***Matthijs Jansen*** Probing the exciton wavefunction in low-dimensional materials by photoemission momentum microscopy
08:40-08:55	**EE-O03** (Oral) ***Cong Doanh Sai, Van-Phu Vu, Viet Tuyen Nguyen et al.*** Fast synthesis of ZnO/Ag heterostructure nanoparticles for enhanced photocatalytic	**SD-O06** (Oral) ***Tan Le Hoang Doan*** Tandem cyclooxidative reaction of anthranilamide and alcohols over Fe(III)-based MOFs: effect of structure on catalytic efficiency	**PH-O03** (Oral) ***Chun-Liang Lin*** Studying Defects in TMD Materials and Devices by STM

08:55-09:10	**EE-O04** (Oral) **Pham Ngoc Thanh, Yuji Hamamoto, Kouji Inagaki et al.** Van der Waals density functional study of NO-H_2O coadsorption on Cu(111)	**SD-I11** (Invited) ***Thi Ngoc Anh Nguyen, Quang Ngan Pham, Van Thanh Chu et al.*** Detection of weak, low-frequency magnetic field using single nanoscale MgO magnetic tunnel junctions	**PH-O04** (Oral) ***Heongkyu Ju, Saikiran Kosame, Than Thi Nguyen and Jun-Ho Lee*** Abnormal spectral shift of surface plasmon resonance
09:10-09:30	**EE-I06** (Invited) ***Ngoc Dinh Nguyen, Vinh Thang Tran, Van Thanh Pham et. al*** Development of a 3D bio-printing system for tubular tissue creation using umbilical cord-derived stem cell spheroids as bio-ink	**SD-I12** (Invited) ***Dang Ngoc Toan*** Neutron diffraction study of state-of-the-art 2D materials	**PH-I06** (Invited) Cancel ***Nguyen Thanh Tung*** Metamaterials: plasmonic properties, ultrafast dynamics, heat transfer, and tuneability
09:30-09:45	**EE-O05** (Oral) ***Ngo Tran, Ruey-Bin Yang and B. W. Lee*** Development of high-efficient multi-layer microwave absorbers using Co-doped $BaMnFe_{11}O_{19}$ nanoparticles	**SD-O07** (Oral) ***Thi Thuy Nguyen, Tatsuaki Hirata and Shin-Ichiro Kuroki*** Nanowire single crystal grain field effect transistors and their applications	**PH-O05** (Oral) ***Der-Hsien Lien*** Electronics and optoelectronics of atomically thin semiconductors
09:45 - 10:15	Coffee break (3/3)		
	Closing Plenary Session **Chairmen: Tomoyuki Yamamoto, Hyung Kook Kim**		
10:15 - 10:45	Plenary talk **PL4** ***Ssu Kuan Wu, Nhu Quynh Diep, Hua Chiang Wen, Wu-Ching Chou and Thanh Tra Vu*** *National Yang Ming Chiao Tung University* Growth dynamics and physical properties of III-VI two dimensional semiconductors grown by molecular beam epitaxy		
10:45 - 11:15	Plenary talk **PL5** ***Ekkes Bruck*** *Delft University of Technology* Fe2P type alloys: an intriguing magnetic playground		

11:15 - 11:45	Plenary talk **PL6** ***Mikhail Brik*** *Jan Dlugosz University, Poland* Optical and electronic properties of crystalline solids from the first-principles and semiempirical methods
11:45 - 12:00	**Final remarks** **Chairmen: Wu-Ching Chou, Michael Lang** - Introduction of the next FMS - Publication notes: available journals, manuscript submission deadlines
Conference closes	