

## JULY 20 - ASIA VCT 2021 DAY 1

UTC	IND	JPN				
01:45	07:15	10:45	<b>ASIA OPENING ADDRESS</b>			
<b>ASIA PLENARY</b>						
02:00	07:30	11:00	<b>AS-O.1-00</b>	Kunihito Koumoto	Thermoelectrics – A Dream Technology for Energy Harvesting	
02:15	07:45	11:15				
<b>July 20 - AS-O.2 Japan sessions - Time: JPT, UTC+09:00</b>						
				<b>UTC</b>	<b>JPN</b>	
<b>July 20, JP morning session 1 (3 talks) Chair: Saurabh Singh (Toyota Technological Institute, Nagoya)</b>						
<b>OPENING ADDRESS (JAPAN)</b>						
02:30	09:00	11:30				
02:45	09:15	11:45	<b>AS-O.2-01</b>	Venkatesh Reddy Shalini	Enhancing the Seebeck coefficient of Cu doped MoS <sub>2</sub> grown over carbon fabric via filtering the minority charge carriers through thermal band engineering	
03:00	09:30	12:00	<b>AS-O.2-02</b>	Arun Kumar, Karuppiyah Deva	Spray pyrolysis transparent Al doped ZnO thin films for thermoelectric applications	
03:15	09:45	12:15	<b>AS-O.2-03</b>	Latronico, Giovanna	Effects of Annealing and Deposition Temperature on the Power Factor of Smy(FexNi1-x)4Sb12 Thin Films	
<b>July 20 - AS-O.1 India sessions - Time: India, UTC+05:30</b>						
				<b>UTC</b>	<b>IND</b>	
<b>July 20, IN morning session 1 - Silicides, antimonides, and chalcogenides (4 talks) Chair: B Jayachandran</b>						
03:30	09:00	<b>OPENING ADDRESS (INDIA)</b>			03:30	12:30
03:45	09:15	<b>AS-O.1-01</b>	Biswas Rajan	Influence of Zinc Content and Grain Size on Enhanced Thermoelectric Performance of Optimally Doped ZnSb	03:45	12:45
04:00	09:30	<b>AS-O.1-02</b>	Jothilal Palraj	Substitutional effect of Bi on thermoelectric properties of InSb	04:00	13:00
04:15	09:45	<b>AS-O.1-03</b>	Kumari, Nirma	Contacting studies in n-type Mg <sub>3</sub> 2Sb1.49Bi0.49Te0.02	04:15	13:15
04:30	10:00	<b>AS-O.1-04</b>	Goyal, Gagan Kumar	Enhanced thermoelectric properties in n-type Mg <sub>2</sub> Si <sub>0.3</sub> Sn <sub>0.7</sub> solid solutions with Pb substitution	04:30	13:30
04:45	10:15	<b>15` break</b>			04:45	13:45
<b>July 20, IN morning session 2 - Silicides, antimonides, and chalcogenides II (4 talks) Chair: Rapaka S Chandra Bose</b>						
05:00	10:30	<b>AS-O.1-05</b>	Singh, Sarabjeet	Comparative analysis of thermoelectric behavior of Molybdenum Silicide (MoSi <sub>2</sub> ) and Bismuth Telluride (Bi <sub>2</sub> Te <sub>3</sub> )	05:00	14:00
05:15	10:45	<b>AS-O.1-06</b>	Madhuvathani Saminathan	Thermoelectric Properties of Si- rich Higher Manganese Silicides	05:15	14:15
05:30	11:00	<b>AS-O.1-07</b>	B Jayachandran	Fabrication and Performance Evaluation of Mg <sub>2</sub> (Si, Sn)-PbTe Thermoelectric Devices for Medium Temperature Applications	05:30	14:30
05:45	11:15	<b>AS-O.1-07_1</b>	Anita Bugalia	Structural and Raman Spectroscopic Studies of Co-doped SnTe for Thermoelectric Applications	05:45	14:45
<b>July 20, IN morning session 3 - Silicides, antimonides, and chalcogenides III (4 talks) Chair: Goyal, Gagan Kumar</b>						
06:00	11:30	<b>AS-O.1-08</b>	Rapaka S Chandra Bose	Role of Grain-alignment and Oxide-impurity in Thermoelectric-properties of n-type Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub>	06:00	15:00
06:15	11:45	<b>AS-O.1-09</b>	Moorthy, Manojkumar	Influence of Pb <sup>2+</sup> doping on thermoelectric properties of CuSbSe <sub>2</sub>	06:15	15:15
06:30	12:00	<b>AS-O.1-10</b>	V. Vijay	Realization of ultra-low lattice thermal conductivity and enhanced thermoelectric performance in polycrystalline Bi <sub>2</sub> Se <sub>3</sub> through nanostructuring.	06:30	15:30
06:45	12:15	<b>AS-O.1-11</b>	Dilip Kumar Meena	Effect of Melt Solidification Rate on Structural and Thermoelectric Transport Properties of Sb <sub>2</sub> Te <sub>3</sub> /Te Nanocomposite	06:45	15:45
<b>July 20, JP afternoon session 1 (3 talks) - Chair: Giovanna Latronico (Shibaura Institute of Technology)</b>						
07:00	12:30				07:00	16:00
07:15	12:45				07:15	16:15
07:00	16:00	<b>AS-O.2-04</b>	Sopheap, Sam	Effect of Sn dopant on thermoelectric properties of β-FeSi <sub>2</sub>		
07:15	16:15	<b>AS-O.2-05</b>	Hirata, Keisuke	Unusual Electron and Lattice Thermal Conductivity of Silver Chalcogenides		

Lunch Break (Japan)

07:30	13:00				07:30	16:30	AS-O.2-06	Oku, Tomohiro	(GeTe) <sub>n</sub> Sb <sub>2</sub> Te <sub>3</sub> thermoelectric material with high power factor at room temperature resulting from L, $\Sigma$ , and $\Delta$ valence band convergence
07:45	13:15				07:45	16:45	15' break		
08:00	13:30				<b>July 20, JP afternoon session 2 (3 talks) - Chair: Tomohiro Oku (Osaka Prefecture University)</b>				
08:15	13:45				08:00	17:00	AS-O.2-07	Singh, Saurabh	Enhancement of thermoelectric properties of flexible Ag <sub>2</sub> S <sub>1-x</sub> Sex (0 < x < 0.5) material by electronic structure modification
08:30	14:00				08:15	17:15	AS-O.2-08	Yudai, Koga	Investigation of synthesis and thermoelectric properties for p-type Ge clathrate by Cu substitution
08:45	14:15				08:30	17:30	15' break		
09:00	14:30				<b>July 20, JP afternoon session 3 (3 talks) - Chair: Karupiah Deva Arun Kumar (Shibaura Institute of Technology)</b>				
09:15	14:45				08:45	17:45	AS-O.2-09	Sido, Eldar	Design and Fabrication of world's smallest uni-leg thermoelectric cooler
09:30	15:00				09:00	18:00	AS-O.2-10	Wang, Yanan	Flexible n-type chalcopyrite/PEDOT:PSS/graphene hybrid film for thermoelectric device harvesting low grade heat
					09:15	18:15	AS-O.2-11	Gutierrez-Del-Rio, Daniel	PEDOT-Based n-Type Hybrid Materials for Wearable Thermoelectric Devices Applications
					09:30	18:30	CLOSING ADDRESS (JAPAN)		
<b>July 20, IN afternoon session 1 - Heusler alloys (3 talks) - Chair: Gagan Kumar Goyal</b>									
09:45	15:15	AS-O.1-12	Inamul Haq Wani	Thermoelectric Properties Of Co-based Full- Heusler Alloys					
10:00	15:30	AS-O.1-13	Parul Raghuvanshi	Impact of Y-site self-doping on thermoelectric properties of half-Heusler (XYZ) compounds					
10:15	15:45	AS-O.1-14	Bhardwaj, Aman	Heusler phase based nanostructured thermoelectric materials for Energy Harvesting Applications					
10:30	16:00				15' break				
<b>July 20, IN afternoon session 2 - Polymeric materials, devices and other contributions I (2 talks) - Chair: Shalini V</b>									
10:45	16:15	AS-O.1-15	S. Harish	Investigation of the performance degradation of bismuth telluride modules under thermal cycling in an automotive exhaust thermoelectric generator					
11:00	16:30	AS-O.1-16	Sivarenjini T M	All weather jacket					
11:15	16:45				15' break				
<b>July 20, IN afternoon session 3 - Polymeric materials, devices and other contributions II (3 talks) - Chair: Laura Paradis-Fortin</b>									
11:30	17:00	AS-O.1-17	Shalini V	Studying the effect of graphene on polyanilines thermoelectric properties for room temperature thermoelectric applications					
11:45	17:15	AS-O.1-18	Abinaya Rengarajan	Thermoelectric Investigation of Radially Transformed Growth from MoS <sub>2</sub> to MoS <sub>2</sub> /MoO <sub>2</sub> Heterostructure					
12:00	17:30	AS-O.1-19	Vikrant Trivedi	Thermoelectric and Transport Properties of Ta-filled and Ni-doped CoSb <sub>3</sub> Skutterudites.					
12:15	17:45				CLOSING ADDRESS (INDIA)				

Lunch break (India)

**JULY 21- ASIA VCT 2021 DAY 2**

**July 21 - AS-O.3 Australia sessions - Time: AUS (Brisbane),**

UTC	AUS			
<b>July 21, AUS Morning session 1 - Australian contributions (6 talks) - Chairs: Solomon Ould and Amer Hawchar</b>				
23:00 (previous day)	09:00	OPENING ADDRESS (AUSTRALIA)		
23:15	09:15	AS-O.3-01	Ran Zhang	Enhanced thermoelectric performance by optimizing periodic nanostructure for the largest heat phonon wave bandgap
23:30	09:30	AS-O.3-02	Xiaolei Shi	A Synergy of Strain Loading and Laser Radiation in Determining the High-Performing Electrical Transports in the Single Cu-Doped SnSe Microbelt
23:45	09:45	AS-O.3-03	Qiang Sun	Designing High-performance GeTe Derivatives by Incorporating Versatile LaB6
00:00	10:00	AS-O.3-04	Meng Li	A Tentative Synthesis of Thermoelectric GeTe Breaking the Current Shackles
00:15	10:15	AS-O.3-05	Ahmed, Al Jumlat	Nano-engineered Perovskite-based Thermoelectric Material
00:30	10:30	AS-O.3-06	Shuai Sun	Advanced Organic Thermoelectrics in Aspects of 1D Fibers, 2D Films and 3D bulks

**July 21 - AS-O.4 China sessions Pt.1 - Time: CHN, UTC+8:00**

UTC	CHN			
<b>July 21, CN morning session 1 - IVA-VIA thermoelectric materials (10 talks) - Chairs: Jing Wang and Yizhuo Wang</b>				
OPENING ADDRESS (CHINA)				
01:00	09:00			
01:15	09:15	AS-O.4-01	Fujie Zhang	Mechanical Alloying Boosted SnTe Thermoelectrics
01:30	09:30	AS-O.4-02	Quan Liu	Repairable Characteristic of Zn4Sb3 and the Continuous Phase Transition Behind It
01:45	09:45	AS-O.4-03	Xinyu Wang	Enhanced Thermoelectric Performance in High Entropy Alloys Sn0.25Pb0.25Mn0.25Ge0.25Te
02:00	10:00	AS-O.4-04	Jinchang Sun	Electronic Activity and Discordance of Sn ions enhancing thermoelectric performance of p-type PbSe
02:15	10:15	AS-O.4-05	Rui Cheng	Bridging the miscibility gap towards higher thermoelectric performance of PbS
02:30	10:30	15' break		
02:45	10:45	AS-O.4-06	Yan Zhong	Optimized Strategies for Advancing n-type PbTe Thermoelectrics
03:00	11:00	AS-O.4-07	Yu Cao	Synergistically improved thermoelectric performance of n-type PbTe via interstitial and substituted Zn doping
03:15	11:15	AS-O.4-08	Hangtian Liu	Thermoelectrics Enhancement Enabled by Co-doping Sb and Cu2Te in n-Type PbTe
03:30	11:30	AS-O.4-09	Shixuan Liu	Coherent Sb/CuTe core/shell nanostructure with large strain contrast boosting the thermoelectric performance of n-type PbTe
03:45	11:45	AS-O.4-10	Wenjie Wu	Effectively improving the thermal stability of Ag-doped PbSe by coating PbO-SiO2-based glass and BN layer

**July 21, AUS Afternoon session 1 - Australian contributions (7 talks) - Chairs: Meng Li and Xiaolei Shi**

04:00	14:00	AS-O.3-07	Hooshmand Zaferani, Sadeq	Advances in thermoelectric refrigerators for thermal management systems in medical practices	04:00	12:00	Lunch break (China)
04:15	14:15	AS-O.3-08	Wenyi Chen	Wearable fiber-based thermoelectrics from materials to applications	04:15	12:15	
04:30	14:30	AS-O.3-09	Tianyi Cao	Wearable thermoelectric materials and device	04:30	12:30	
04:45	14:45	AS-O.3-10	Hawchar Amer	Thermoelectrics as power source for sensors in Industry 4.0	04:45	12:45	
05:00	15:00	AS-O.3-11	Ould, Solomon	Evaluating and optimising IoT sensor networks aimed at compatibility with thermoelectric energy harvesting	05:00	13:00	
05:15	15:15	AS-O.3-12	Shengduo Xu	Computation-guided design of high-performance flexible thermoelectric modules for sunlight-to-electricity conversion	05:15	13:15	
05:30	15:30	AS-O.3-13	Weidi Liu	Anisotropy control boost thermoelectric performance of Bi2Te2.7Se0.3 Thin Film	05:30	13:30	
05:45	15:45	CLOSING ADDRESS (AUSTRALIA)			05:45	13:45	

July 21, CN afternoon session 1 - Oxides , Polymeric materials and applications (10 talks) - Chairs: Xinyu Wang and Qingyu Bai				
06:00	14:00	AS-O.4-11	Xinjian Li	Synthesis and Characterization of Non-stoichiometric SrTiO <sub>2.8</sub> Thermoelectric Materials at High Temperature and High Pressure
06:15	14:15	AS-O.4-12	Qi Chen	Synthesis and optimization of ZnO and its doping system thermoelectric materials under HPHT
06:30	14:30	AS-O.4-13	Hao Wu	Double Perovskite Pr <sub>2</sub> CoFeO <sub>6</sub> Thermoelectric Oxide: Roles of Sr-doping and Micro/Nano Structuring
06:45	14:45	AS-O.4-14	Yihan Wang	Novel Hybrid P- and N- Type Organic Thermoelectric Materials Based on Mussel-Inspired Polydopamine
07:00	15:00	AS-O.4-15	Jing Wang	P-type chemical doping induced high bipolar electrical conductivities in a thermoelectric donor-acceptor copolymer
07:15	15:15			<b>15' break</b>
07:30	15:30	AS-O.4-16	Ting Wu	Highly conducting wet-spun PEDOT:PSS thermoelectric fibers by rational post-treatments
07:45	15:45	AS-O.4-17	Yalong Wang	3D geometrically structured PANI/CNT-decorated polydimethylsiloxane active pressure and temperature dual-parameter sensors for man-machine interaction applications
08:00	16:00	AS-O.4-18	Hao Tang	Direct miniaturization of Bi <sub>2</sub> Te <sub>3</sub> -based commercial thermoelectric devices
08:15	16:15	AS-O.4-19	KeChen Tang	Finite element analysis and optimization of thermoelectric generators in wearable electronic device
08:30	16:30	AS-O.4-20	Yizhuo Wang	Washable green biocomposites for wearable applications with enhanced thermoelectric performance

**JULY 22- ASIA VCT 2021 DAY 3**

					July 22 - AS-O.6 China sessions Pt.2 - Time: CHN, UTC+08:00					
UTC		KRT				CHN				
								July 22, CN morning session 1 - transition metals chalcogenides and Theoretical calculation (10 talks) - Chairs: Airan Li and Shuxian Zhang		
						00:00	08:00	AS-O.6-01	Jing Jiang	Enhanced stability and thermoelectric performance in Cu <sub>1.85</sub> Se based compounds
						00:15	08:15	AS-O.6-02	Xiaomeng Cai	Band convergence realization in Cu <sub>2</sub> Se by Transition Metal Alloying
						00:30	08:30	AS-O.6-03	Kuncai Li	Enhanced thermoelectric performance and tunable polarity in 2D Cu <sub>2</sub> S-phenol superlattices composites for solar energy conversion
UTC	KRT					00:45	08:45	AS-O.6-04	Shiqi Yang	Ag <sub>2</sub> OS <sub>7</sub> Te <sub>3</sub> with Excellent Plastic-Deformability and High Thermoelectric Performance
						01:00	09:00	AS-O.6-05	Qingyu Yang	p-Type Plastic Inorganic Thermoelectric Materials
July 22, KR-SG morning session 1 - Chalcogenides (5 talks) - Chair: Hwang, Junphil										
01:15 10:15					OPENING ADDRESS (KOREA)					
01:30	10:30	AS-O.5-01	Kim, Sujin	Enhancement of Thermoelectric Properties by Multiple Carrier Scattering by Superparamagnetic Nanoparticles in eco-friendly Cu <sub>2</sub> SnS <sub>3</sub>	01:30	09:30				
01:45	10:45	AS-O.5-02	Shin, Seungik	Effects of Hot Press Sintering Conditions on Thermoelectric Properties in Sb <sub>2</sub> Te <sub>3</sub>	01:45	09:45				
02:00	11:00	AS-O.5-03	Hwang, Junphil	Enhancement of Thermoelectric Performance in non-toxic CuInTe <sub>2</sub> /SnTe Coated Grain Nanocomposite	02:00	10:00	coffee break (China)			
02:15	11:15	AS-O.5-04	Youn, Seonhye	Strong Thermopower Enhancement via Semimetal to Semiconductor Transition in a Transition Metal	02:15	10:15				
02:30	11:30	AS-O.5-05	Kihoi, Samuel Kimani	Band Engineering, Density of States Tuning and Low Thermal Conductivity in Mn and Bi Co-Doped SnTe Thermoelectric Material	02:30	10:30				
02:45	11:45				02:45	10:45	AS-O.6-06	Yi Niu	Suppressed phase transition and enhanced room-temperature thermoelectric performance in cubic AgCuTe	
03:00	12:00				03:00	11:00	AS-O.6-07	Mingdi Lan	High current density PEF adjusts atomic-level defects of the Bi <sub>2</sub> Te <sub>3</sub> film to improve TE properties	
03:15	12:15	Lunch break (Korea)			03:15	11:15	AS-O.6-08	Liangcao Yin	High near-room temperature figure of merit of n-type Bi <sub>2</sub> GeTe <sub>4</sub> -based thermoelectric materials via a stepwise optimization of carrier concentration	
03:30	12:30				03:30	11:30	AS-O.6-09	Zhicheng Jin	Abnormal Thermal Conduction in Argyrodite-type Ag <sub>9</sub> FeS <sub>6</sub> -xTex Materials	
03:45	12:45				03:45	11:45	AS-O.6-10	Yongheng Li	Anomalously suppressed thermal conductivity in CuInTe <sub>2</sub> under pressure	
04:00	13:00				04:00	12:00				
04:15	13:15				04:15	12:15				
04:30	13:30				04:30	12:30				
July 22, KR-SG Afternoon session 1 - Silicides, New materials, and Devices (4 talks) - Chair: Kim, Fredrick										
04:45	13:45	AS-O.5-06	Byeon, Seokyeong	The Effect of Mg Deficiency on Thermoelectric Properties of Mg <sub>2-x</sub> (Si, Sn) Solid Solution.	04:45	12:45				
05:00	14:00	AS-O.5-07	Park, Sang J.	Designing Efficient Spin Thermoelectric Device via Engineering Magnon-Phonon Thermal Coupling	05:00	13:00	Lunch break (China)			
05:15	14:15	AS-O.5-08	Kim, Minyoung	Enhancing Thermoelectric Performance via Relaxed Spin-Polarization	05:15	13:15				
05:30	14:30	AS-O.5-09	Abbey, Stanley	Enhancing the Thermoelectric Properties of Tellurium by Carrier Tuning and Microstructural Engineering	05:30	13:30				
05:45	14:45				05:45	13:45				
					July 22, CN afternoon session 1 - Zintl's, half-Heusler and other typical compounds (10 talks) - Chairs: Yi Niu and Xinyue Zhang					
06:00	15:00				06:00	14:00	AS-O.6-11	Airan Li	Band Anisotropy Enhances Thermoelectric Performance of p-type Mg <sub>3</sub> Sb <sub>2</sub>	
06:15	15:15				06:15	14:15	AS-O.6-12	Jie Song	Conducting type reversion in Mg <sub>3</sub> Sb <sub>2</sub> based thermoelectric materials with Scandium doping	
06:30	15:30	Tea break (Korea)			06:30	14:30	AS-O.6-13	Jisheng Liang	Optimizing Electrical Transport Properties by Carrier Engineering and nanostructuring in N-Type Mg <sub>3</sub> (Sb,Bi) <sub>2</sub> -Based Compounds for High Thermoelectric Performance	
06:45	15:45				06:45	14:45	AS-O.6-14	Xiaofang Li	Thermodynamic Approaches to Determine the Stability of Defective NbCoSb half-Heusler Thermoelectric Materials	
07:00	16:00				07:00	15:00	AS-O.6-15	Sen Xie	Study on Epitaxial Growth of Mg <sub>3</sub> Sb <sub>2</sub> Single Crystal Film and Temperature Induced Lifshitz Transition	
July 22, KR-SG Afternoon session 2 - Silicides, New materials, and Devices (4 talks) - Chair: Abbey, Stanley										
07:15	16:15	AS-O.5-10	Kahiu, Joseph Ngugi	Enhancement of Thermoelectric Performance of Ti-doped NbFeSb by Substitution Doping of Sb with Bi	07:15	15:15				

07:30	16:30	AS-O.5-11	ACHARYA, SOMNATH	Improved Thermoelectric Performance of ZnO by enhanced Phonon Scattering and Modified Charge Transport	07:30	15:30	Tea break (China)		
07:45	16:45	AS-O.5-12	Kim, Da-hye	Fabrication and Performance Evaluation of P-type Sb <sub>2</sub> Te <sub>3</sub> -PEDOT:PSS Fiber using Wet-Spinning	07:45	15:45			
08:00	17:00	AS-O.5-13	Choo, Seungjun	Cu <sub>2</sub> Se-based Thermoelectric Cellular Architectures for Efficient and Durable Power Generation	08:00	16:00			
08:15	17:15	Cocktail break (korea)			08:15	16:15	AS-O.6-16	Ye Sheng	Accelerating the discovery of new thermoelectric materials via high-throughput synthesis, characterization, and machine learning assisted image analysis
08:30	17:30				08:30	16:30	AS-O.6-17	Shuang Li	Achieving High Thermoelectric Performance in Polycrystalline SnSe through Schottky Vacancies and Endotaxial Nanostructuring
08:45	17:45				08:45	16:45	AS-O.6-18	Yao Wang	High Pressure Synthesis and Thermoelectric Properties of Pyrite (FeS <sub>2</sub> )
09:00	18:00				09:00	17:00	CLOSING ADDRESS (CHINA)		
July 22, KR-SG Afternoon session 3 - Silicides, New materials, and Devices (4 talks) - Chair: Jang, Hanhwi									
09:15	18:15	AS-O.5-14	Yi, Zhou	Flexible Thermoelectrics Enabled Radioisotope Heat Harvesting for Extreme Applications	CLOSING ADDRESS (KOREA)				
09:30	18:30	AS-O.5-15	Lee, Jungsoo	Doping-induced Viscoelasticity in PbTe Thermoelectric Inks for 3D printing of Power-generating Tubes					
09:45	18:45	AS-O.5-16	Zheng, Liang Jun	Combined Heat Sink and Water Film Evaporative Cooling to Enhance the Performance of the Thermoelectric Generator					
10:00	19:00	AS-O.5-17	Kim, Fredrick	Direct Ink Writing of 3D Thermoelectric Architectures for Fabrication of Micro Power Generators					
10:15	19:15								
UTC	KOR	CHN	CLOSING ADDRESS (ASIA)						
10:30	19:30	18:30							