

19th EUROPEAN CONFERENCE ON THERMOELECTRICS

PRELIMINARY PROGRAMME

SUNDAY, SEPTEMBER 17, 2023

13:00 - 19:00	Registration
18:00 - 18:30	Welcome Drink

MONDAY, SEPTEMBER 18, 2023

08:00 - 12:00	Registration
<i>chairperson: Name Surname</i>	
09:00 - 09:15	Introduction
09:15 - 10:00 PT 01	Half and Full-Heusler alloys: thermoelectricity beyond Bi₂Te₃ A. Riss, M. Parzer, F. Garmroudi, A. Grytsiv, G. Rogl, P. Rogl, T. Mori, E. Bauer
10:00 - 10:30 IT 01	Circular thermoelectrics and green innovations for sustainability A. Weidenkaff , W. Xie, X. Xiao
10:30 - 11:00	Coffee Break

SESSION I	
<i>chairperson: Name Surname</i>	
11:00 - 11:15	Understanding thermal transport in GeTe thin films and impact of nanostructuring R. Cravero , J. Paterson, M. Tomelleri, P. Noé, O. Bourgeois, V. M. Giordano
11:15 - 11:30	Exploring the Effect of Resonant Doping on Thermoelectric Properties of Cubic Ge-Sb-Te Thin Films S. Abbas , B. Jarwal, T. T. Ho, S. M. Vaillyaveettil, L. C. Chen, K. H. Chen
11:30 - 11:45	The effect of the milling rotation speed of PbTe thermoelectric materials with nanostructure R. Yasuda , M. Bumrungron, T. Maeda, M. Tachii, J. Asai, I. Morioka, R. Yasuhuku, T. Hirai, T. Tsubochi, T. Kanaya, T. Iwamoto, C. Kanda, S. Uno, J. Kanaya, K. Hasezaki
11:45 - 12:00	Origins of ultralow lattice thermal conductivity in PbGa₆-xIn_xTe₁₀ filled β-Mn-type phases O. Cherniushok , T. Parashchuk, R. Cardoso-Gil, Y. Grin, K. T. Wojciechowski
12:00 - 12:15	Regulation of the intrinsic vacancies for high-performance GeTe thermoelectrics with ultrahigh carrier mobility M. Zhang , Z. Gao, C. Hu, Q. Lou, Z. Han, C. Fu, T. Zhu
12:15 - 12:30	Interplay of resonant level and band convergence in SnTe C. Candolfi , S. Misra, S. El Oualid, B. Wiendlocha, J. Tobola, B. Lenoir

SESSION II	
<i>chairperson: Name Surname</i>	
11:00 - 11:15	Towards a complete characterization of thermoelectric figure of merit of individual nanowires T. Lahens, L. Vincent, G. Hallais, S. Grauby, S. Dilhaire
11:15 - 11:30	Designing a high-precision instrument to characterize the thermoelectric material and device H. R. Ren , C. P. Niu, Y. B. Zhao, Y. Q. Li, X. L. Chen, H. L. He
11:30 - 11:45	Understanding current-voltage curves of thermoelectric modules under low temperature difference operation J. García-Cañadas , F. Vidan, B. Beltrán-Pitarch
11:45 - 12:00	Customized measuring station for Peltier modules R. Binniger , S. Unmüßig, M. Vergez, M. Bartel, O. Schäfer-Welsen

12:00 - 12:15	Investigation of thermal conductivity on nanographene coated mesoporous silicon S. Nar, A. Stolz, D. Machon, A. Kusiak, J-L Battaglia, A. Boucherif, N. Semmar
12:15 - 12:30	Mechanical and thermoelectric properties of AISI 4340 high-strength martensitic steel with ZnNi coating subjected to hydrogenation M. Sajdak , K. T. Wojciechowski

SESSION III

chairperson: Name Surname

11:00 - 11:15	Demonstration of the economic viability and energy savings potential of thermoelectric generators for pellet boilers J. Schwab , M. Kober, T. Knobelspies, C. Fritscher, F. Rinderknecht, T. Siefkes
11:15 - 11:30	Utilising computational design tools to simulate novel thermoelectric systems for energy recovery in steel making processes M. Phillips , U. Chiarotti, V. Moroli, F. Mintus, S. Bosi, M. Padovan, S. Spagnul, D. Gaspardo, M. Chini, A. Viotto, L. Bianco, T. Bause, P. Fritella, N. Katenbrink, G. Min
11:30 - 11:45	A TEG-based waste heat recovery system for atmospheric pressure plasma jets M. J. Huang , Y. H. Lin, P. C. Hsu, J. Y. Juang
11:45 - 12:00	High energy conversion efficiency realized by the thermoelectric converter with stepwise legs M. Maksymuk , T. Parashchuk, A. Burbelko, K. T. Wojciechowski
12:00 - 12:15	Enhancing thermoelectric generation with radiative cooling and phase change heat exchangers M. Araiz , L. Catalán, P. Alegría, N. Pascual, D. Astrain
12:15 - 12:30	A design and verification of a non-icing and non-condensing waste-cold-recovery system M. Ch. Lin , H. Y. Chen, F. T. Chung, M. J. Huang

12:30 - 14:00	Lunch
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SESSION I

chairperson: Name Surname

14:00 - 14:30 IT 02	Multiscale phonon scattering in thermoelectric Fe₂VAl E. Alleno
14:30 - 14:45	Transport properties of Co₂HfSn Heusler alloy obtained by rapid solidification and sintering A. Difalco , G. Barrera, P. Allia, M. Palumbo, S. Boldrini, A. Ferrario, P. M. Tiberto, M. Baricco, E. Alleno, A. Castellero
14:45 - 15:00	Enhancing the thermoelectric properties via modulation of defects in p-type MNiSn-based (M=Hf, Zr, Ti) half-Heusler materials X. Ai , B. Lei, M. O. Cichocka, L. Giebeler, R. B. Villorod, S. Zhang, N. Pérez, K. Nielsch, R. He
15:00 - 15:15	Effect of isoelectronic substitution on the transport properties of Co₂Zr_{1-x}Hf_xSn (x = 0, 0.25, 0.50, 0.75, 1) Heusler alloys A. Difalco, A. Ferrario, S. Boldrini, M. Baricco, A. Castellero
15:15 - 15:30	Anisotropic magneto-thermal transport in Co₂MnGa thin films P. Ritzinger , K. Výborný

SESSION II

chairperson: Name Surname

14:00 - 14:30 IT 03	In operando X-ray scattering studies of degradation mechanisms in high-performance thermoelectric materials B. Brummerstedt Iversen
14:30 - 14:45	Machine learning enabled thermoelectric generator modelling and optimisation Y. Zhu , D. Newbrook, P. Dai, C. H. (Kees) de Groot, R. Huang
14:45 - 15:00	Design theory of a tiny high-power-density thermoelectric harvester to power wireless sensor node H. L. He , H. R. Ren, C. P. Niu, Y. Wu, M. Rong
15:00 - 15:15	Advanced simulations of hybrid porous-solid/electrolyte materials for enhanced power factors P. Priyadarshi, S. C. Ruiz, Jorge García-Cañadas, N. Neophytou
15:15 - 15:30	Influence of thermoelectric properties on the output power density of a new design of planar μ-TEG S. El Oualid , F. Kosior, G. Span, E. Mehmedovic, J. Paris, C. Candolfi, B. Lenoir

SESSION III

chairperson: Name Surname

14:00 - 14:30 IT 04	Mg-based thermoelectric generators for near-room-temperature applications: device manufacturing and strategies for further improvement J. de Boor , S. Ghosh, A. Wieder, A. Duparchy, H. Naithani, P. Ziolkowski, G. Oppitz, M. Abdelbaky, W. Mertin, B. Ryu, S.D. Park, E. Müller
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14:30 - 14:45	Sustainable n-type CuFeS₂ thin-film thermoelectric generators <u>M. A. Malagutti</u> , K. Lohani, A. Chiapinni, I. C. Prades, A. Navarro, E. Saucedo, N. Ataollahi, P. Scardi
14:45 - 15:00	An on-chip micro-thermoelectric temperature-controller <u>Q. Jin</u> , N. Pérez, K. Nielsch, H. Reith
15:00 - 15:15	Thermoelectric modules based on thin films for IoT applications <u>P. Mele</u> , G. Latronico, H. Shigemune, M. Maeda, C. Bourges, T. Mori, K. Usami
15:15 - 15:30	High-sensitivity flexible thermocouple sensor arrays via printing and photonic curing <u>M. Mallick</u> , L. Franke, A. Rösch, U. Lemmer

15:30 - 16:00	Coffee Break
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SESSION I	
<i>chairperson: Name Surname</i>	
16:00 - 16:15	The high-performance n-type Bismuth-telluride-based polycrystalline materials via constructing MoSe₂-2D heterojunction for power generation applications <u>T. Xiong</u> , H.L. He, G. Tian, H.R. Ren, C.P. Niu, Y. Wu, M. Rong
16:15 - 16:30	Electrochemically grown bismuth telluride inside commercial polyester filters for flexible thermoelectric generators. <u>O. Caballero-Calero</u> , P. Cerviño Solana, M. Á. Tenaguiño, M. M. González
16:30 - 16:45	Investigating Both Electronic Structure and Thermoelectric Transport Properties of SnBi₂Te₄ <u>I. Terzi</u> , K. Pryga, B. Wiendlocha, C. Candolfi, B. Lenoir
16:45 - 17:00	High temperature crystal structure analysis, effect of substitution on phase transition and transport properties of Cu₂9Te₂ <u>M. Yahyaoglu</u> , Y. Prots, U. Aydemir
17:00 - 17:15	Reducing the thermal conductivity of nanocrystalline CuNi alloys <u>C. V. Manzano</u> , O. C. Calero, M. Tranchant, E. Bertero, P. C. Solana, M. M. González, L. Philippe
17:15 - 17:30	Precision Interface Engineering of CuNi Alloys by Powder ALD Toward High Thermoelectric Performance <u>A. Bahrani</u> , S. He, C. Jung, S. Zhang, R. He, K. Nielsch

SESSION II	
<i>chairperson: Name Surname</i>	
16:00 - 16:15	On the optimisation of the brazing process of Fe₂VAl Heusler compound-based Thermoelectric Modules <u>V. Marchal-Marchant</u> , G. Roy, C. van der Rest, V. Dupont, J-P. Erauw, P. J. Jacques
16:15 - 16:30	CoTe₂- Enhanced Thermoelectric Performance of Nanocrystalline Skutterudite Thin Films <u>B. Jarwal</u> , S. Abbas, T. L. Chou, S. M. Vaillyaveettil, L. C. Chen, K. H. Chen
16:30 - 16:45	Fabrication and evaluation of Co-based diffusion barriers for skutterudite thermoelectric materials obtained via pulse plasma sintering <u>M. J. Kruszewski</u> , K. Cymerman, M. Chmielewski, D. Moszczyńska, Ł. Ciupiński
16:45 - 17:00	Development of high-entropy-type thermoelectric materials <u>A. Yamashita</u> , A. Seshita, P. Rani, Y. Mizuguchi
17:00 - 17:15	Electrochemical and thermoelectric characterization of mixed-conducting high-entropy oxides <u>T. Miruszewski</u> , D. Jaworski, M. Czudec, K. Kuc, J. Budnik, W. Skubida, B. Trawiński, M. Gazda
17:15 - 17:30	Thermoelectric properties of high-entropy type AgBi(S, Se, Te)₂ <u>A. Seshita</u> , A. Yamashita, Y. Mizuguchi

SESSION III	
<i>chairperson: Name Surname</i>	
16:00 - 16:15	Dynamic thermoelectric generators: increased efficiency at maximum power by modulation of heat fluxes <u>D. Narducci</u>
16:15 - 16:30	In-situ electrode bonding process for improving the reliability and efficiency in nanostructured PbTe-based modules <u>P. Sauerschnig</u> , P. Jood, M. Ohta
16:30 - 16:45	Height Optimized Micro-Thermoelectric Devices <u>N. B Pulumati</u> , A. S Dutt, D. Berger, N. Sherkat, U. Pelz, P. Woias, K. Nielsch, H. Reith
16:45 - 17:00	Long-term performance stability of all-Si based micro-thermoelectric generators with integrated heat sink <u>A. Rodríguez-Iglesias</u> , D. Estrada-Wiese, J. M. Sojo, M. Fernández-Regúlez, I. Martín-Fernández, A. Morata, A. Tarancon, L. Abad, J. Santander, M. Salleras, L. Fonseca

17:00 - 17:15	Development of Nano-CHP Based on Middle and Low Temperature Thermoelectric Modules Arranged as a Cascade <u>A. Stumpf</u> , T. Metz
17:15 - 17:30	Co-designing flexible thermoelectrics with techno-economic sustainability for low-grade heat harvesting <u>Y. Zhou</u> , G. W. Ho, J. He

TUESDAY, SEPTEMBER 19, 2023

<i>chairperson: Name Surname</i>	
09:00 - 09:45 PT 02	Interface and grain boundary effects on thermoelectrics <u>G. J. Snyder</u>
09:45 - 10:15 IT 05	Microscale Imaging of Thermal Conductivity Suppression at Grain Boundaries <u>E. Isotta</u> , S. Jiang, G. Moller, A. Zevalkink, G. J. Snyder, O. Balogun
10:15 - 10:45	Coffee Break

SESSION I	
<i>chairperson: Name Surname</i>	
10:45 - 11:00	Investigation of the thermoelectric properties of the (Mn, Co, Ni, Zn) Sb₂ Se₄ series <u>M. Leproult</u> , T. Barbier, E. Guilmeau
11:00 - 11:15	Novel fabrication route for reproducible and high zT in superionics Ag₂X (X = Se, Te) <u>N. Jakhar</u> , N. Bisht, D. K. Kedia, A. Kumar, K. Saurabh, A. Katre, S. Singh
11:15 - 11:30	Metavalent bonding mediated high thermoelectric properties of SnSe-Ag₃VI₂ alloys <u>N. Lin</u> , R. He, T. Ghosh, O. Cojocaru-Mirédin, Y. Yu, M. Wuttig
11:30 - 11:45	In-depth study on preparation of Bi₂O₂Se polycrystals <u>J. Zich</u> , A. Sojka, K. Knížek, J. Navrátil, Č. Drašar
11:45 - 12:00	Synthesis and thermoelectric properties of Cr_{1-x}MexN (Me = Mo, V) <u>V. Hjort</u> , N. Singh, S. Chowdhury, R. Shu, A. Le Febvrier, P. Eklund
12:00 - 12:15	Influence of ion implantation on the thermoelectric properties of transition metal nitrides thin films. <u>H. Bouteiller</u> , R. Burcea, P. Eklund, A. Le Febvrier, S. Dubois, J. F. Barbot

SESSION II	
<i>chairperson: Name Surname</i>	
10:45 - 11:00	Understanding the mechanism of metal-assisted chemical etching to optimize thermoelectric devices based on Si nanopillars <u>F. Giulio</u> , D. Narducci
11:00 - 11:15	Impact of the nanostructuring and Sr purity on the thermal and thermoelectric properties of α-SrSi₂ <u>R. Ghannam</u> , A. Moll, D. Bérardan, B. Villeroy, R. Viennois, M. Beauduin
11:15 - 11:30	Enhanced electronic transport and low thermal conductivity in eco-friendly Cu₂CoSnS₄-xSex diamond-like materials <u>T. Parashchuk</u> , O. Cherniushok, O. Smitiukh, O. Marchuk, K.T. Wojciechowski
11:30 - 11:45	Thermal conductivity of GeSn alloys: a CMOS energy harvesting platform for green computing <u>A. A. Corley-Wiciak</u> , P. Graziosi, A. A. Chimienti, O. Concepción, D. Buca, D. Spirito, A. Tomadin, M. Virgilio, S. Roddaro, G. Capellini
11:45 - 12:00	Suppressing the thermal conductivity of type-I clathrates by mesostructuring <u>M. Lužnik</u> , G. Lientschnig, M. Taupin, A. Steiger-Thirsfeld, X. Yan, A. Prokofiev, S. Paschen
12:00 - 12:15	High-performance n-type silicide thermoelectrics developed by recycled Si kerf <u>P. Mangelis</u> , A. Sousanis, G. Mesaritis, A. K. Sjøiland, T. Kyratsi

SESSION III	
<i>chairperson: Name Surname</i>	
10:45 - 11:00	A Heusler-based Transverse Thermoelectric Generator Processed by Co-Sintering <u>M. Delcroix</u> , G. Roy, V. Marchal-Marchant, C. van der Rest, P. J. Jacques
11:00 - 11:15	Development and experimental adjustment of a computational model for geothermal thermoelectric generators <u>P. Alegría</u> , L. Catalán, M. Araiz, N. Pascual, D. Astrain

11:15 - 11:30	Realizing a 10°C Cooling Effect in a Flexible Thermoelectric Cooler using a Vortex Generator S. Xu , M. Ibanez
11:30 - 11:45	High-efficiency printed radial thermoelectric generators utilizing photonic curing on p- and n-type inorganic chalcogenides-based inks L. Franke , M. Mallick, A. G. Rösch, M. I. Khan, U. Lemmer
11:45 - 12:00	New architectures for heat sink less organic and inorganic thin film thermoelectric (TE) devices inspired by Kirigami C. Zeng , E. Bilotti
12:00 - 12:15	Characterisation and optimisation of passive heat exchangers for enhancing the operation of thermoelectric generators under extreme environmental conditions N. Pascual , M. Araiz, P. Alegría, L. Catalán, I. Erro, A. Martínez, D. Astrain

12:15 - 13:45	Lunch
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SESSION I	
<i>chairperson: Name Surname</i>	
13:45 - 14:15 IT 06	Structure-property relations in ternary copper sulphides for thermoelectric applications A.V Powell , P. Vaqueiro, S. Tippedreddy
14:30 - 14:45	Phase analysis and thermoelectric properties of nano-sized tetrahedrites prepared by direct solvothermal synthesis of elements A. Lis , K. Zazakowny, O. Cherniushok, M. Gajewska, T. Parashchuk, J. Toboła, K. T. Wojciechowski
14:15 - 14:30	Thermoelectric properties of Cu₁₂-xNi_xSb₄S₁₃-ySe_y tetrahedrite D. Moço, J. F. Malta, E. B. Lopes, L. F. Santos, D. Zavanelli, G. J. Snyder, A. P. Gonçalves
14:45 - 15:00	High-Performance Thermoelectric Properties of Cu₂Se Fabricated via Cold Sintering Process S. Pinitsoontorn , P. Piyasin
15:00 - 15:15	Atomic and nanoscale order/disorder phenomena in thermoelectric copper-based sulfides E. Guilmeau

SESSION II	
<i>chairperson: Name Surname</i>	
13:45 - 14:15 IT 07	Phonons and thermal properties of complex crystals S. Pailhès , V. M. Giordano, S. R. Turner, P.F. Lory, C. Candolfi, M. de Boissieu, H. Euchner
14:30 - 14:45	Predicting phonon transport in thermoelectric Sr₂Si_{1-x}Gex alloys from a highly accurate machine learning interatomic potential H. J. You , L. Z. Yao, Y. F. Liu, T. Ong, Y. T. Yao, T. R. Chang, H. Lin
14:15 - 14:30	Designing phonons for thermoelectric metamaterials with physics and machine learning optimization X. Zianni , A. D. Stefanou, I. Chouthis
14:45 - 15:00	Comprehensive fitting tool to analyse temperature-dependent transport data: Introduction and examples of usage M. Parzer , F. Garmroudi, A. Riss, M. Reticcioli, T. Mori, E. Bauer
15:00 - 15:15	Best thermoelectric efficiency exploration by solving thermoelectric integral equation over material big data of Starrydata2 B. Ryu , J. Chung, M. Kumagai, Y. Katsura, S.D. Park

SESSION III	
<i>chairperson: Name Surname</i>	
13:45 - 14:15 IT 08	The Concept of the Composite Thermoelectric Materials with Attuned Electronic Structure and Mismatched Phonon Structure (AES-MPS) K. Wojciechowski , A. Kosonowski, A. Kumar, T. Parashchuk, A. Lis, K. Zazakowny, S. Gogoc, J. Tobola, K. Wolski, S. Zapotoczny
14:30 - 14:45	Protective Covers for Cu₁₀.5Ni_{1.5}Sb₄S₁₃ Tetrahedrites R. Coelho , E. B. Lopes, F. P. Brito, A. P. Gonçalves
14:15 - 14:30	Interstitials in half-heusler compounds W. Xie , R. Yan, A. Weidenkaff
14:45 - 15:00	Enhancing the thermoelectric performance of n-type Mg₃(Sb,Bi)₂ by high-temperature sintering and metallic inclusions J. W. Li , H. L. Zhuang, J. F. Li
15:00 - 15:15	Dilemma and opportunities: A review on industrial-scale applications of thermoelectric power generation H. Jin

15:15 - 17:30	POSTER SESSION I
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WEDNESDAY, SEPTEMBER 20, 2023

chairperson: Name Surname	
09:00 - 09:45 PT 03	Enhanced atomic ordering leads to ultra-high thermoelectric performance <u>K. Biswas</u>
09:45 - 10:15 IT 09	Solution-Processed Inorganic Thermoelectric Materials: new avenues for material control T. Kleinhanns, M. Calcabrini, C. Fiedler, S. Horta, D. Balazs, <u>M. Ibáñez</u>
10:15- 10:45	Coffee Break

SESSION I	
chairperson: Name Surname	
10:45 - 11:00	Role of lone pair rotation in the ultralow thermal conductivity of aikinite <u>P. Vaqueiro</u> , V. Carnevali, S. Mukherjee, D. J. Voneshen, K. Maji, E. Guilmeau, A. V. Powell, M. Fornari
11:00 - 11:15	Innovative synthesis methods to reach quaternary thioantimonate Ag₄MnSb₂S₆ <u>T. Barbier</u> , A. Bertrand, M. Leproult, F. Gascoin
11:15 - 11:30	Rare Earth Chalcogenides: A Promising Group of Materials for Thermoelectric Applications <u>J. U. Rahman</u> , K. Jang, Ch. Jung, S. Zhang, K. Nielsch, R. He
11:30 - 11:45	Thermoelectric studies of synthetic mineral Kutinaite Cu₁₄Ag₆As₇ <u>V. Pavan Kumar</u> , R. S. Christensen, T. B. E. Grønbech, K. A. H. Stöckler, B. B. Iversen
11:45 - 12:00	Mixed Anion Chalcogenides with Disordered Structures as New Thermoelectric Candidates <u>Z. Malik</u> , G. Hyett
12:00 - 12:15	Low thermal conductivity in metal halide and chalcogenide <u>P. Acharyya</u> , E. Guilmeau, K. Biswas

SESSION II	
chairperson: Name Surname	
10:45 - 11:00	Studying on the Lattice Dynamics of the Mg₃(Sb,Bi)₂ Thermoelectric Materials using Inelastic Neutron Scattering <u>L. Chen</u> , W. Zhao
11:00 - 11:15	Optimization of magnesium-based materials for near room temperature applications <u>B. A. Santos</u> , J. de Boor, A. P. Gonçalves
11:15 - 11:30	On the stability of thermoelectric materials: investigating Mg diffusion in Mg₂(Si,Sn) at room temperature <u>A. Duparchy</u> , R. Deshpande, S. Ghosh, E. Müller, J. de Boor
11:30 - 11:45	Enhancing the room temperature thermoelectric performance of n-type Mg₃(Bi, Sb)₂-based material <u>R. Chetty</u> , T. Mori
11:45 - 12:00	Tuning micro- and nanostructures by decomposition of PbAgSbTe₃ and the influence on thermoelectric properties <u>P. Kemmesies</u> , X. Li, O. Oeckler
12:00 - 12:15	Enhancing Low Temperature Thermoelectric Properties of n-type Mg_{3-2-x}(Sb_{0.3}Bi_{0.7})_{1.996}Te_{0.004} through Nb Addition <u>M. Özen</u> , A. B. Burçak, U. Aydemir

SESSION III	
chairperson: Name Surname	
10:45 - 11:00	Colossal Nernst power factor in topological semimetals for Ettingshausen refrigeration <u>Q. Li</u>
11:00 - 11:15	Large enhancement of the silicon power factor in on-chip multi-barrier nanodevices <u>A. Masci</u> , E. Dimaggio, C. Capello, D. Narducci, N. Neophytos, G. Pennelli
11:15 - 11:30	Strong charge carrier scattering at grain boundaries of PbTe caused by the collapse of metavalent bonding <u>Y. Yu</u> , M. Wuttig
11:30 - 11:45	Magneto-thermal switching using superconductors and importance of phonon-glass-electron-crystal states to the switching performance <u>M. Yoshida</u> , M. R. Kasem, A. Yamashita, K. Uchida, Y. Mizuguchi

11:45 - 12:00	Soft optical phonons enabling ultralow and glass-like thermal transport in Argyrodite Cu₇PS₆ <u>X. C. Shen</u> , Y. Chen, E. Guilmeau
12:00 - 12:15	Temperature dependent Evolution of Optical Phonon Modes and Thermoelectric Properties in polycrystalline Bi₂Te₃ M. Tiadi, D. K. Satapathy, <u>M. Bhattabyal</u>

12:15 - 13:45	Lunch
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SESSION I	
<i>chairperson: Name Surname</i>	
13:45 - 14:15 IT 10	Thermoelectricity and magnetism in selected oxides and chalcogenides <u>S. Hébert</u>
14:30 - 14:45	Thermoelectric properties of defective half-Heusler Nb _{0.80} CoSb-TiCoSb solid solutions <u>Y. Huang</u> , K. Y. Xia, Z. H. Gao, C. G. Fu, T. J. Zhu
14:15 - 14:30	Analysis of crystal structure and Thermoelectric properties of Sr-substituted [Ca ₂ CoO ₃] _p CoO ₂ <u>Y. Shimizu</u> , K. Hayashi, Y. Miyazaki
14:45 - 15:00	Co-Cr-Fe-Mn-Ni oxide as a highly efficient thermoelectric high-entropy alloy <u>D. Pankratova</u> , K. Yusupov, A. Vomiero ¹
15:00 - 15:15	Nanostructure Engineering and Thermoelectric Properties of SrTiO ₃ /TiN Nanocomposites Consolidated by Spark Plasma Sintering <u>M. Ohtaki</u> , S. Umeno, S. Nagasaki, K. Suekuni

SESSION II	
<i>chairperson: Name Surname</i>	
13:45 - 14:15 IT 11	Electronic transport simulations in complex band materials beyond the constant relaxation time approximation <u>N. Neophytou</u> , Z. Li, P. Graziosi
14:30 - 14:45	Thermoelectric figure of merit under constant Seebeck coefficients <u>J. Chung</u> , B. Ryu, H. Seo
14:15 - 14:30	Efficient and accurate calculations of thermoelectric coefficients for materials with complex bands: The example of Mg ₃ Sb ₂ <u>Z. Li</u> , P. Graziosi, N. Neophytou
14:45 - 15:00	Direct simulation of thermoelectric transport in rubrene from nonadiabatic dynamics <u>J. Elsner</u> , J. Blumberger
15:00 - 15:15	Unravelling the mystery: Does thermopower depend on specific heat or entropy? M. Jazandari, J. Abouie, <u>D. Vashaee</u>

SESSION III	
<i>chairperson: Name Surname</i>	
13:45 - 14:15 IT 12	Unlocking high thermoelectric performance in metallic NiAu alloys via inter-orbital scattering <u>F. Garmroudi</u> , M. Parzer, A. Riss, C. Bourgès, S. Khmelevskiy, T. Mori, E. Bauer, A. Pustogow
14:30 - 14:45	Playing with phonons: from the reduction of the thermal conductivity to the full control of the phonon flux <u>C. Capello</u> , A. Masci, E. Dimaggio, G. Pennelli
14:15 - 14:30	Seebeck, Nernst and magnetotransport in dense Co ₃ Sn ₂ S ₂ ceramic <u>A. Maignan</u> , R. Daou, D. Pelloquin, S. Hébert
14:45 - 15:00	Sustainable metal phosphide thermoelectrics with promising performance R. J. Quinn, <u>J. W. G. Bos</u>
15:00 - 15:15	Large atomic size mismatch induced novel meta-phase and high thermoelectric performance <u>K. Zhao</u> , L. Chen, X. Shi

15:15 - 17:30	POSTER SESSION II
19:00 - 22:00	CONFERENCE DINNER

THURSDAY, SEPTEMBER 21, 2023

chairperson: Name Surname	
09:00 - 09:45 PT 04	Development of enhanced thermoelectric materials and viable devices T. Mori
09:45 - 10:15 IT 13	The Next Generation RTG Project – Rebuilding the Past and Preparing for the Future J. P. Fleurial
10:15- 10:45	Coffee Break

SESSION I	
chairperson: Name Surname	
10:45 - 11:00	Strong enhancement of the thermoelectric properties of nanostructured α-SrSi₂ by combining Melt-spinning and Spark Plasma Sintering R. Ghannam, A. Moll, D. Bérardan, B. Villeroy, R. Viennois, M. Beaudhuin
11:00 - 11:15	Poly(3-hexylthiophene) layers modified by acids as promising p-type thermoelectric materials S. Gogoc , P. Gnida, K. Wojciechowski, P. Data
11:15 - 11:30	Exploring the Potential of Nanostructured Ag₂Se in Hybrid Thermoelectric Films B. Hamawandi , P. Genc, A. B. Ergül, M. S. Toprak
11:30 - 11:45	More than 3 times power factor improvement of PEDOT:PSS induced by electrolytes M. Solis-de la Fuente , L. Márquez-García, S. Castro-Ruiz, E. Liautaud, L. Fournier, C. Chatard, A. Bouvet-Marchand, J. García-Cañadas
11:45 - 12:00	Organic Thermoelectrics: Physics and applications D. K. Satapathy
12:00 - 12:15	Thermoelectric properties of pedot: PSS thin films in different concentration Ş. Özkan , G. Gürlek, M. Şener, Y. Seki, B. O. Gürses, L. Altay, M. Sarikanat

SESSION II	
chairperson: Name Surname	
10:45 - 11:00	Ab-initio Studies of Electronic Properties of Tungsten Carbide for Thermoelectric Applications A. K. Vishwakarma, R. Saraswat, S. Bhattacharya, R. Verma
11:00 - 11:15	Does Zn form a resonant level in SnTe? K. Pryga , B. Wiendlocha
11:15 - 11:30	In-gap states: mechanism of ZT improvement and their difference to resonant levels B. Wiendlocha
11:30 - 11:45	Interplay Between Doping, Morphology and Lattice Thermal Conductivity in Organic Polymers P. S. Floris , N. Zahabi, A. Cappai, I. Zozoulenko, C. Melis, R. Rurali
11:45 - 12:00	Criteria for erroneous substrate contribution to the thermoelectric properties of thin films A. Riss , M. Stöger, M. Parzer, F. Garmroudi, T. Mori, E. Bauer
12:00 - 12:15	Lifetime prediction of a Bi₂Te₃ thermoelectric module Y.Q. Zhang , C.P. Niu, H.L. He, Y. Wu, M. Rong

SESSION III	
chairperson: Name Surname	
10:45 - 11:00	Advanced thermoelectric converter technologies for integration into a potential advanced radioisotope thermoelectric generator T. Caillat , S. Pinkowski, I. Chi, J. Paik, K. Smith, R. Bennett, S. Keyser, A. Lane, K. Wefers
11:00 - 11:15	Feasibility of a Low-Power RTG Concept Utilizing a GPHS Heat Source A. Ray , K. Sherick, P. Berneron, B. A. Tolson, C. Barklay, M. den Heijer
11:15 - 11:30	ISA-TEG: High temperature modules based on Half-Heusler compounds ready for commercialization A. Fey, C. Klingelhöfer, S. Moos, B. Orth, B. Pfeiffer, N. Rink, J. Marien, D. Zuckermann
11:30 - 11:45	0.5 kW facility of geothermal thermoelectric generator from hot dry rocks on canary islands D. Astrain , N. Pascual, P. Alegría, L. Catalán, M. Araiz, I. Erro

11:45 - 12:00	A new direct p-n junction based on Heusler compounds manufactured by co-sintering <u>G. Roy</u> , M. Delcroix, N. Namazzade, V. Marchal-Marchant, C. van der Rest, P.J. Jacques
12:00 - 12:15	Development of thermoelectric modules based on magnesium and manganese silicide, derived from recycled Si-kerf <u>P. S. Ioannou</u> , P. Mangelis, G. Mesaritis, A. Sousanis, I. Ioannou, A. K. Søliland, C. Kyriakou, K. Stylianou, S. Hadjipanteli, T. Kyratsi
12:15 - 13:45	Lunch
<i>chairperson: Name Surname</i>	
13:45 - 14:30	ROUND TABLE SESSION
14:30 - 15:00	FAREWELL

TUESDAY 15:15 - 17:30	POSTER SESSION I
	Theory & Modelling
	Accelerated discovery of efficient thermoelectric materials using a novel machine learning approach <u>S. Athar</u> , N. Ramsahye, <u>P. Jund</u>
	Graphene induced thermoelectric property in ZnO/graphene <u>B. M. J. Hong</u>
	First-principles study of structural disorder, site preference, chemical bonding and transport properties of Li-doped tetrahedrites <u>A. Kolezynski</u> , K. Kapera
	Identification of dominant scattering mechanism and its influence on transport properties of half-Heusler compound <u>D. Bhattacharjee</u> , P. R. Raghuvanshi, A. Bhattacharya, T. Dasgupta
	A multiband fitting technique for analyzing temperature dependent electronic band structure of thermoelectric materials <u>B. Agrawal</u> , T. Tarachand, J. de Boor, T. Dasgupta
	Complex Fermi surface responsible for high zT <u>Ø. A. Grimenes</u> , O. M. Løvvik, K. Berland
	Efficiency improvement of discrete thermoelectric generators operating under local thermal non-equilibrium domain <u>A. Massaguer</u> , M. Teixidor, J. J. Suñol, E. Massaguer
	High-throughput and accurate prediction of the thermal and electron transport properties of large chemical spaces accelerated by machine learning <u>J. J. Plata</u> , A. M. Márquez, E. J. Blancas, V. Posligua, R. Grau-Crespo, J. Fdez Sanz
	Outstanding thermoelectric properties ($ZT \approx 5 - 6$) of functionalized 2D molybdenum nitrides (MXenes) <u>J. Kołodziejczyk</u> , J. A. Majewski
	Ab-initio studies of electronic properties of tungsten carbide for thermoelectric applications A. K. Vishwakarma, R. Saraswat, S. Bhattacharya, <u>R. Verma</u>
	Effect of PEDOT:PSS and bismuth tellure on electric potentials in the thermoelectric generator <u>G. Vardar</u> , M. Şener, B. O. Gürses, G. Gürlek
	Thermoelectric algebraic representation: equations and inequalities for simple thermoelectric device design <u>B. Ryu</u> , J. Chung, S. Park, S. D. Park
	The stability and role of defects in Bi₂O₂Se <u>K. Knížek</u> , J. Navrátil, Č. Drašar
	Investigating the transport properties of CrN: Insights into phonon thermal conductivity and scattering <u>K. Ahn</u> , J. Hejtmánek, K. Knížek
	First-principles calculations of thermal properties in the triangular lattice antiferromagnet AgCrSe₂ <u>Ş.-J. Kim</u> , H. Rosner
	Efficiency improvement of discrete thermoelectric generators operating under local thermal non-equilibrium domain <u>M. Teixidor</u> , A. Massaguer, J.J Suñol, E. Massaguer

	Measurement & Characterization
	Study on multi scale evaluation of long-term reliability for thermoelectric devices and legs S. H. Park , E. A. Koo, S. W. Yoon, D. J. Wei, H. H. Lee, J. J. Choi
	Establishing a protocol for the approval of thermoelectric materials used in biomedical applications K. P. Walsh
	Novel methods of scattering parameter analysis for BiSbTe thermoelectric materials under constant temperature without Hall measurements. K. Hasezaki , J. Asai, M. Bumrungron, T. Tsubochi, T. Kanaya, M. Tachii, T. Maeda, T. Iwamoto, C. Kanda, R. Yasuda, S. Uno, J. Kanaya
	Experimental estimation of electrical conductance of heterostructured Ge nanowires for thermoelectrical applications. T. Lahens , G. Hallais, L. Vincent, S. Dilhaire, S. Grauby
	Characterization and Seebeck coefficient of mesoporous silicon: effect of nanographene incorporation S. Nar , A. Stolz, D. Machon, A. Boucherif, N. Semmar
	Lattice dynamics study of thermoelectric cubic SrSi₂ by Raman scattering experiments and ab initio calculations R. Ghannam , J. Rouquette, M. Beaudhuin, R. Viennois
	In praise of the humble four point probe: Characterisation for scale up R. S. Tuley , C. Koz, H. Hunter, E. Stefanaki, K. Simpson
	Thermal interface resistance analysis of thermoelectric devices by using thermoreflectance microscopy H.-B. Kim , H. Jang
	A cross-plane Seebeck measurement system for sub-μm-thick films H. Shin , S. Lee
	Temperature dependent evolution of optical phonon modes and thermoelectric properties in polycrystalline Bi₂Te₃ M. Tiadi , D. K. Satapathy, M. Bhattabval
	Hierarchically designed tetrahedrite with reduced thermal conductivity facilitated by all-scale phonon scattering U. Rout , R. Ch. Mallik
	Mechanical properties characterization of thermoelectric materials S. J. Jeon , S. Shin, D. H. Kim, S. Han
	Thermoelectric properties of doped SnSe alloys F. Mihok , K. Saksl
	A Self-Independent Binary-Sublattice Construction in Cu₂Se Thermoelectric Materials H. Zhao , H. Hu, J.-W. Li, J.-F. Li, J. Zhu
	Thermoelectric Materials & Processing
	Development and evaluation of bismuth antimony telluride-PEDOT: PSS hybrid thermoelectric fiber using co-sputtering D. H. Kim , S. Shin, S. J. Jeon, S. Han
	Experimental and DFT study of doped CrN thin films for thermoelectric applications N. Singh , D. Gambino, A. Febvrier, B. Alling, P. Eklund
	Highly tailored gap-like structure for excellent thermoelectric performance X. Xu , R. He, K. Nielsch, J. Q. He
	Anomalous thermal conductivity of alkaline-metals-substituted EuTiO₃ induced by resonant scattering W. Xie , X. Xiao, A. Weidenkaff
	Manipulation with natural mineral chalcopyrite CuFeS₂ via mechanochemistry: properties and thermoelectric potential P. Baláž , E. Dutková, M. Baláž, N. Daneu, L. Findoráková, J. Hejtmánek, P. Levinský, K. Knížek, M. Bali Hudáková, R. Džunda, R. Bureš, V. Puchý
	Enhance thermoelectric performance of Mg₃Sb₂-based materials via Ag doping strategy J. Li , R. Chetty, T. Mori
	Chemical bonding origin of the excellent thermoelectric properties of Bi₂Te₃-based alloys N. Lin , Y. Yu, M. Wuttig
	Synthesis, characterizabtion and thermoelectric properties of p-type MnSi_{1.73} and Mg₂(Si, Sn) prepared using Si-kerf from PV cutting process G. Mesaritis , I. Ioannou, A. K. Soiland, Th. Kyratsi
	Growth and thermoelectric properties of ScN-based ternary alloys S. Chowdhury , V. Hjort, N. Singh, F. A. F. Lahiji, M. Magnuson, A. L. Febvrier, P. Eklund

	Improving Thermoelectric Efficiency of InSb by Nano-Boron Doping <u>A. B. Burcak</u> , R. Cardoso-Gil, U. Aydemir
	p-type copper iodide thin film for transparent and flexible thermoelectrics <u>P. Goel</u> , W. Wojnicka, T. Koskinen, I. Tittonen
	Investigation of the thermoelectric properties of the (Mn, Co, Ni, Zn) Sb₂Se₄ series <u>M. Leproult</u> , T. Barbier, E. Guilmeau
	Low purity elements based skutterudites for mid-temperature thermoelectric applications <u>R. Bhardwaj</u> , E. Alleno
	Surface LASER processing effect on the thermoelectric properties of bismuth-antimony-tellurium alloy <u>G. Samourghanidis</u> , T. Kyratsi
	Effect of element substitution on thermoelectric properties and oxidation resistance of iron disilicide <u>H. Kohri</u>
	The effect of the milling rotation speed of PbTe thermoelectric materials with nanostructure <u>R. Yasuda</u> , M. Bumrungron, T. Maeda, M. Tachii, J. Asai, I. Morioka, R. Yasuhuku, T. Hirai, T. Tsubochi, T. Kanaya, T. Iwamoto, C. Kanda, S. Uno, J. Kanaya, K. Hasezaki
	Reduced contact resistance of Cu₂SnS₃ thermoelectric legs <u>S. Nakamura</u> , H. Araki, Y. Akaki
	Thermoelectric materials grown by magnetron sputtering codeposition: a thin film approach <u>A. Conca</u> , E. Ferreira-Vila, J. M. Domínguez-Vázquez, C. V. Manzano, O. Caballero-Calero, A. Cebollada, M. Martin-Gonzalez
	Mechanochemical synthesis of tetrahedrite Cu₁₂Sb₄S₁₃ nanocomposites: challenge for thermoelectric performance <u>P. Baláž</u> , A. Baran Burcak, U. Aydemir, A. Mikula, P. Nieroda, M. Baláž, L. Findoráková, R. Bureš, V. Puchý, M. Erdemoglu, M. Achimovičová, E. Guilmeau
	Design and properties of composites made of bismuth nanowires confined in mesoporous silica and alumina for Peltier applications <u>R. Viennois</u> , M. Fabbiani, Y. Zhao, J. Haines, O. Cambon, J. Rouquette, M. Beaudhuin, V. Flaud, P. Toulemonde, M. Legendre, C. Goujon, J.-L. Bantignies, L. Alvarez, C. Levelut, L. Konczewicz, S. Contreras
	Thermoelectric properties of Cu₂Se obtained by the SPS and the “SPS melting” method <u>P. Nieroda</u> , J. Leszczyński, M. J. Kruszewski, A. Koleżyński
	Phase analysis and thermoelectric properties of nano-sized tetrahedrites prepared by direct solvothermal synthesis of elements <u>A. Lis</u> , K. Zakakowny, O. Cherniushok, M. Gajewska, T. Parashchuk, J. Toboła, K. T. Wojciechowski
	Thermoelectric properties of electrodeposited bismuth selenide thin films <u>R. Kaur</u> , A. Tanwar, N. Padmanathan, K. M. Razeeb
	Comparison of different co-doping strategies in optimizing thermoelectric properties of tetrahedrites <u>J. Leszczyński</u> , P. Nieroda, A. Koleżyński
	Organic/inorganic thermoelectric composites prepared via mechanical mixing <u>S. Hadjipanteli</u> , Th. Krasia-Christoforou, Th. Kyratsi
	Thermoelectric properties of conventionally and mechanothermally prepared chalcogenide spinels CuCr₂Se₄ <u>V. Kucek</u> , <u>M. Achimovičová</u> , M. Baláž, V. Puchý
	Selective scatterings of phonons and electrons in defective Half-Heusler Nb_{1-d}CoSb for the figure of merit $zT > 1$ <u>Z. H. Gao</u> , K. Y. Xia, P. F. Nan, L. Yin, B. H. Ge, Q. Zhang, C. G. Fu, T. J. Zhu
	Highly flexible and durable thermoelectric power generator from CNT/PDMS foam by rapid solvent evaporation <u>Y. H. Kang</u> , M. Han
	Effect of sintering temperature on thermoelectric transport properties of n-type Mg₃Sb₂ <u>J. H. Son</u> , J. I. Jang, B. S. Kim, B. K. Min, S. J. Joo

WEDNESDAY 15:15 - 17:30	POSTER SESSION II
	Thermoelectric Devices & Applications
	300mm wafer level fabrication of CMOS-compatible thermoelectric energy-harvester and cooler devices <u>C. Schwinge</u> , M. Czernohorsky, G. Gerlach, M. Wagner-Reetz
	Transient-Liquid-Phase bonding for Skutterudite-based thermoelectric modules <u>Ch. Stiewe</u> , P. Ziolkowski, E. Müller

	Half-Heusler modules with high power density for nano-CHP application <u>N. Rink</u> , C. Klingelhöfer, S. Moos, B. Orth, B. Pfeiffer, A. Fey, Dr. J. Marien, D. Zuckermann
	Fabrication of high power density telluride-based thermoelectric generator module for mid-temperature applications below 550 oC <u>J. Park</u> , B. Ryu, S.D. Park
	Thermoelectric cooling system for the monolithic microwave integrated circuits chip <u>S. Shin</u> , D. Kim, S. Jeon, S. Han
	Procedure of failure analysis on commercial available thermoelectric modules K. H. Gresslehner, M. Krenn, J. Schaumberger, P. Kerepsi, E. Machado Charry, B. Sonderegger
	Thermoelectric generator for autarkic maritime heating systems <u>P. Ziolkowski</u> , D. Zuckermann, P. Schmidt, E. Müller
	Development of thermoelectric generator for low-temperature waste heat recovery <u>R. Zybala</u> , B. Bucholc, K. Kowiorski, G. Kuderski, A. Strojny-Nędza, M. Chmielewski, K. Krzyżak, A. Majcher, K. Kaszyca
	Optimization of a two-stage cascade type thermoelectric generator through finite element analysis <u>A. Miozzo</u> , A. Ferrario, M. S. Natali, S. Boldrini
	Thermoelectric devices based on block copolymer nanostructured Si thin films <u>A. Rodríguez-Iglesias</u> , I. Martín-Fernández, F. Pérez-Murano, J. Santander, F. Xavier Álvarez, A. F. Lopeandia, L. Fonseca, L. Abad, M. Salleras, M. Fernández-Regúlez
	Twist angle resolved thermal conductivity in bilayer MoSe2 <u>M. Mandal</u> , N. Maity, P. K. Barman, A. K. Singh, P. K. Nayak, K. Sethupathi
	Reliability and electrical characterization of transient liquid phase sintering interconnects for thermoelectric devices <u>A. Ferrario</u> , M. S. Natali, A. Castellero, C. Fanciulli, A. Miozzo, S. Barison, L. Armelao, S. Boldrini
	Adopting thermoelectric generators for the detection of low energy radioactive beams (unstable ion beams) <u>F. Puglia</u> , W. Krisnayudi, S. Khan
	Using large elements and enhanced thermal design to enable the viability of large-scale thermoelectric applications <u>F. P. Brito</u> , D. Oliveira, D. Freitas, J. Martins, Ó. Carvalho
	Inkjet printing flexible thermoelectric devices for sustainable power generation Q. Zhang, A. Huang, L. Wang, W. Jiang, U. Lemmer
	Design optimization of printed thermoelectric generators tailored for plate heat exchangers in waste heat recovery applications <u>M. I. Khan</u> , L. Franke, A. G. Rösch, U. Lemmer
	Emerging Topics
	A Cr complex solution able to produce a large power factor improvement in a nanostructured and porous oxide film <u>S. Castro-Ruiz</u> , L. Márquez-García, M. Solís-de la Fuente, B. Beltrán-Pitarch, P. Íñigo-Rabinal, G. Guisado-Barrios, J. García-Cañadas
	Ionic thermoelectric effect in silver copper selenide <u>B. Trawiński</u>
	Others
	Thermoelectric data analysis toward power generation evaluation and standardization <u>S.D. Park</u> , J. Chung, J. Park, J. Jang, J. Lee, S. Park, B. Ryu
	Thermoelectric Materials & Processing
	Single-phase synthesis and thermoelectric properties of nowotony chimney-ladder FeGe <u>T. Kurosawa</u> , K. Hayashi, Y. Miyazaki
	Textured Ca3Co4-xO9-δ ceramics of electrospun nanoribbons with improved thermoelectric performance <u>K. Kruppa</u> , I. I. Maor, F. Steinbach, M. Mann-Lahav, G. S. Grader, A. Feldhoff
	The comparison of properties of tellurides doped monocrystals <u>K. Kaszyca</u> , G. Boczekal, B. Bucholc, K. Kowiorski, G. Kuderski, R. Zybala
	Development of highly conductive copper iodide with precision doping of iodine for thermoelectric power generators <u>B. Park</u> , E. J. Bae, M. Han, Y. H. Kang
	Properties of semiconductor-metal junctions obtained by the SPS/FAST process <u>K. Kowiorski</u> , K. Kaszyca, B. Bucholc, M. Chmielewski, K. Krzyżak, G. Kuderski, R. Zybala

	The properties of tellurides fabricated by SHS technique B. Bucholc , K. Mars, K. Kowiorski, G. Kuderski, A. Strojny-Nędza, K. Kaszyca, R. Zybala
	Role of the magnetism on the thermoelectric properties in FeCr₂S₄ S. El Haber , D. Pelloquin, O. Lebedev, R. Daou, A. Maignan, S. Hébert
	Impact of excess Cu on phase separation and thermoelectric properties of arc melted Ti_{0.5}Zr_{0.5}NiCu_ySn B. F. Kennedy , J.W.G. Bos
	Band engineered and carrier modulated thermoelectric enhancement in half-Heusler A. Kumar , P. Ghosh, S. Singh
	Engineering Thermoelectric Transport in Transparent Conducting Oxides S. Biswas, S. Majumder, E Jagadeswarareddy, V. B. Kamble
	Modelling the lattice thermal conductivity of skutterudites: ab-initio calculations, machine learning and more E. R. Remesal , A. M. Márquez, E. J. Blancas, V. Posligua, J. J. Plata, J. Fdez Sanz
	Preparation and thermoelectric properties of nonstoichiometric full-Heusler Mn₂+xV₁-xAl alloys G. Kanno , K. Hayashi, Z. Huang, H. Li, Y. Miyazaki
	Unraveling the origin of donor-like effect in bismuth-telluride-based thermoelectric materials F. Liu , M. Zhang, P. F. Nan, X. Zheng, Y. Z. Li, K. Wu, Z. K. Han, B. H. Ge, X. B. Zhao, C. G. Fu, T. J. Zhu
	Enhanced thermoelectric properties by anion-engineering of 2-dimensional transition metal dichalcogenides K. Ch. Kwon , H. Shin
	Enhancing thermoelectric and mechanical properties of p-type (Bi, Sb)₂Te₃ through Rickardite mineral (Cu₂.9Te₂) incorporation K. Saglik, M. Yahyaoglu, C. Candolfi, U. Aydemir
	Effect of magnetic entropy in the thermoelectric properties of Fe-doped Fe₂VAl full-Heusler Tarachand , N. Tsujii, T. Mori
	Cu-Mo metallic composites as buffer layers in skutterudite-based thermoelectric generators W. Sakly , S. El Oualid, P. Masschelein, B. Denand, C. Candolfi, B. Lenoir
	Carrier engineering-driven high thermoelectric performance in Ti doped Yb_{0.4}Co₄Sb₁₂ A. Dadhich , M. Saminathan, S. Perumal, M. S. Ramachandra Rao, K. Sethupathi
	Rapid synthesis and thermoelectric characterization of Ag₂Se_{1+x} compounds: Unveiling the secret of ultrafast formation and high performance K. Gáborová , P. Levinský, J. Hejtmánek, K. Knížek, M. Achimovičová
	Tuning thermoelectric properties of tetrahedrite via simultaneous doping with Ni and Se. D. Moço , J. F. Malta, E. B. Lopes, L. F. Santos, A. P. Gonçalves
	The enhancement of thermoelectric performance in MgAgSb via post-annealing process S.Y Back , W. Zhang, M. Yoshitaka, H. Cho, D. H. Nguyen, N. Kawamoto, D. Berthebaud, T. Mori
	Growth and TE properties of n-type Mg₃Bi₂-based thermoelectric thin film S. Bano , P. Ying, A. Takashi, R. Chetty, T. Mori
	Porous Ag₂Se fabricated by a modified cold sintering process with the average ZT around unity near room temperature D. Palaporn, S. Pinitsoontorn
	Twisted interfaces for enhancement of thermoelectric properties S. Abbey, H. Jang, M. W. Oh
	Enhanced thermoelectric performance of Al-doped ZnO nanocomposite obtained via chemical co-precipitation I. Serhiienko , A. Novitskii, V. Khovaylo, T. Mori
	Synthesis and thermoelectric properties of Cu doped and (Cu,Ge) double-doped higher manganese silicides Ch. Prajapati , M. Saravanan
	Energy harvesting from thermoelectric thin film by electromagnetic induction M. Şener , G. Gürlek, B. O. Gürses, Ş. Özkan
	Thermoelectric properties of a novel AgMnSbTe₃ compound P. Levinský , J. Hejtmánek, C. Candolfi, B. Lenoir
	Synthesizing double/triple Half-Heusler to explore larger compositional space K. Imasato , P. Sauerschnig, T. Ishida, A. Yamamoto, M. Ohta
	Electronic/ thermal transport and thermoelectric phenomena in implanted diamond nanostructures S. Salami , s. Pailhès, C. Adessi, V. Giordano, Z. Mthwesi, D. Régis, F. Rémy, B. Nicholas, A. Every, S. Naidoo

	Effects of annealing on thermoelectric properties of thin films and their application in micro-thermoelectric devices H. Reith , M. Naumochkin, N. Pulumati, L. Wilkins, K. Nielsch
	Optimizing thermoelectric properties of electrodeposited chalcogenides by electrochemical reduction reaction of tellurium ion J. Kim
	Improved thermoelectric performance of p-type tin monosulfide through tin precipitates M. Y. Fakhri , T. T. Ho, W. J. Lai, S. M. Valiyaveetil, B. Jarwal, L. C. Chen, K. H. Chen
	Thermoelectric properties of high entropy oxides A. Kumar , D. Dragoie, D. Berardan, N. Dragoie
	High thermoelectric performance in Ag₂Se achieved through a sustainable solution synthesis F. Milillo , T. Kleinhanns, M. Calcabrini, C. Fiedler, S. Horta, D. Balazs, M. Ibáñez

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