

Monday, July 27

Time	Room 1, Monday	Room 2, Monday	Room 3, Monday
8:00	Registration		
8:30	Plenary Session	Chair: Elmar Wagner Opening Talks	
9:00		Thermoelectric goes Automotive G. Buschmann	
9:30		Thermoelectric effects in heterostructure nanowires H. Linke	
10:00	Coffee Break		
10:25	Invited	Chair: Lon Bell Formation and control of thermoelectric composites at the nanoscale G.J. Snyder, T. Ikeda	Invited
10:55		Silicide thermoelectrics: State-of-art and prospects M.I. Fedorov, V.K. Zaitsev	
11:25	Quick Break		
11:30	M2A - Automotive Applications	Chair: Lon Bell Progress report on BSST Led, US DOE automotive waste heat recovery program D. Crane, J. LaGrandeur	M2B - Novel Materials
11:50		Comparison of waste heat recovery from the exhaust of a spark ignition and a Diesel engine K. Wojciechowski, R. Zybala, M. Schmidt, J. Merksiz, P. Fuc, P. Lijewski	
12:10		Vehicular thermoelectric generators and air conditioner/heaters J.W. Fairbanks	
11:30		Chair: Sabine Schlecht Porous materials in synthetic transverse thermoelements H.J. Goldsmid	M2C - Microsystems
11:50		Attaining the phonon diffuse mismatch limit with SiGe nanocrystal layers in Si matrix A. Rastelli, G. Pernot, M. Stoffel, A. Jacquot, J. Schumann, G. Savelli, H. Böttner, O.G. Schmidt, S. Dilhaire, M. Plissonnier, N. Mingo	
12:10		Influence of band structure on the high thermoelectric performance of lanthanum telluride A.F. May, D.J. Singh, G.J. Snyder	
11:30		Chair: Joachim Nurnus >10% single-stage and >13% two-stage conversion devices for increased fuel efficiency in portable generator systems and internal combustion engines C. Caylor, P. Thomas, G. Krueger, R. Venkatasubramanian, B. Cook, P. Dev, S. Matthews	
11:50		Multifunctional integrated microfluidic circuits enabled with Integrated thermoelectric circuits R.P. Welle, B.S. Hardy	
12:10		Switched energy converters U. Ghoshal	
12:30	Lunch		
14:00	M3A - Nanostructured Materials 1	Chair: Kornelius Nielsch Preparation methods, thermoelectric properties and modelling of nanocomposites of PbTe and ternary phases in the system Pb-Sb-Te S. Schlecht, D. Petri, C. Erk, R. Haßdorf, E. Müller, P.J. Klar, C. Heiliger	M3B - Skutterudites 1
14:20		Natural microstructure and thermoelectric properties of $(\text{GeTe})_{80}(\text{Ag}_{1.2}\text{Sb}_{0.8}\text{Te}_{1.8})_{20}$ S. Yang, S. Zhang, J. Shen, T. Zhu, X. Zhao	
14:40		Nanosized type-I clathrates V. Pacheco, R. Cardoso-Gil, L. Tepech-Carrillo, M. Wagner, W. Carrillo-Cabrera, W. Schnelle, N. Oeschler, Y. Grin	
14:00		Chair: Claude Godart Thermoelectric properties of ball-milled $\text{Ba}_y\text{Yb}_x\text{Co}_4\text{Sb}_{12}$ filled skutterudites T. Caillat, S. Chi, B. Cheng, J.-P. Fleurial	M3C - Theory 1
14:20		Skutterudite als Thermo-Elektrische-Materialien für automotive Anwendungen? K. Salzgeber, P. Prenninger, A. Grytsiv, P. Rogl, E. Bauer	
14:40		Thermal stability of barium and indium double-filled skutterudite $\text{Ba}_{0.3}\text{In}_{0.2}\text{Co}_{3.95}\text{Ni}_{0.05}\text{Sb}_{12}$ coated by SiO_2 nanoparticles W. Zhao, C. Dong, P. Wei, B. Ma, Q. Zhang	
14:00		Chair: Janusz Tobola On the significance of Z D. Nemir, J. Beck	
14:20		Seebeck coefficient enhancement due to band structure distortions in Landau levels V. Jovovic, J.P. Heremans	
14:40		The absolute thermopower of Ti, Zr, Hf, and Th H.A. Brodowsky, T. Aaviksaar	

Time	Room 1, Monday	Room 2, Monday	Room 3, Monday
15:00	Enhanced thermoelectric performance in BiSbTe alloy with novel nanostructures W. Xie, X. Tang, Y. Yan, Q. Zhang, T.M. Tritt	Synthesis and thermoelectric properties of $Fe_2O_3/Ce_{0.5}Fe_{1.5}Co_{2.5}Sb_{12}$ composites L.F. Huang, P.C. Zhai, B. Duan, W.Y. Zhao, Q.J. Zhang	An alternative approach to the physics of thermoelectric cooling Y.G. Gurevich
15:20	Thermoelectric performance of p-type PbTe bulk materials fabricated by attrition milling and spark plasma sintering C.H. Kuo, C.S. Hwang, W.S. Su, Y.W. Chou, J.R. Ku, M.S. Jeng	Low cycle fatigue properties of $CoSb_3$ -based Skutterudite Compounds Z. Ruan, L. Liu, P. Zhai, P. Wen, Q. Zhang	The law of thermoelectric induction and expansion of its application opportunities L. Anatyshuk
15:40	Coffee Break		
	Chair: Gang Chen	Chair: Thomas Weissgärber	Chair: Martin Jäggle
16:10	Optimizing electronic properties of misfit layered compounds Q. Lin, C. Mortensen, C. Heideman, R. Rostek, D. Johnson	Mg_2Si compound obtained by self-propagating high-temperature synthesis (SHS) E. Godlewska, K. Mars, R. Mania	Finite element thermomechanical modeling of large area thermoelectric generators based on bismuth telluride alloys S. Turenne, T. Clin, D. Vasilevskiy, R.A. Masut
16:30	Oscillatory behavior of the thermoelectric properties in p-PbTe quantum wells E. Rogacheva, O. Vodoretz, O. Nashchekina, A. Sipatov, A. Fedorov, S. Olkhovskaya, M. Dresselhaus	Effect of vacancies on the thermoelectric properties of Sb-doped Mg_2Si T. Dasgupta, C. Stiewe, R. Hassdorf, A.J. Zhou, L. Böttcher, E. Müller	Modelling of optimum TE gradients for energy conversion and cooling E. Müller, W. Seifert, G. Karpinski
16:50	Solid state thermionic direct thermal to electrical energy conversion with nitride metal-semiconductor superlattices R. Wortman, J. Schroeder, P. Burmistrova, T. Sands, M. Zebajadi, Z. Bian, A. Shakouri	Low-temperature solid state reaction synthesis and thermoelectric properties of high-performance, Sb-doped $Mg_2Si_{0.6}Sn_{0.4}$ W. Liu, X. Tang, J. Sharp, Y. Yan, Q. Zhang	A study on common simplifications of a thermoelectric cooler model R. McCarty, J. Bierschenk
17:10	Annealing studies of thin Bi_2Te_3 films under controlled over pressures of Te A. Taylor, N. Nguyen, C. Mortensen, R. Rostek, D.C. Johnson	Thermoelectrics of p-type on the base of solid solutions in the system $Mg_2Si-Mg_2Sn-Mg_2Ge$ G.N. Isachenko, V.K. Zaitsev, M.I. Fedorov, E.A. Gurieva, P.P. Konstantinov	Thermodynamic of the thermoelectric potential C. Goupil
17:30	Electrical and structural real-time changes in thin thermoelectric $(Bi_{0.15}Sb_{0.85})_2Te_{3-}$ films by dynamic thermal treatment K. Rothe, M. Stordeur, F. Heyroth, F. Syrowatka, H.S. Leipner	Transition metal doping of rare earth borosilicides T. Mori, A. Nomura, T. Shishido, K. Nakajima	Model building and simulation of thermoelectric module using MATLAB/SIMULINK H.-L. Tsai, J.-M. Lin
17:50	Chip-scale superlattice thermoelectric coolers for high heat flux removal from electronic devices R. Venkatasubramanian	Large band-gap compound $Cu_2ZnSnSe_4$ as high potential thermoelectric material X.Y. Shin, L. Chen	Lattice thermal conductivity reduction in Si nanowires X. Lü
18:10	Poster Session 1		

Tuesday, July 28

Time	Room 1, Tuesday	Room 2, Tuesday	Room 3, Tuesday
	Chair: Eckhard Müller	Chair: Jan König	
8:00	Thermoelectric cooling and power generation as green technologies J. Sharp	Doping and defect structure of tetradymite type crystals C. Drasar, P. Lostak, C. Uher	
8:30	Phonons: How long do they really travel? G. Chen, A. Minnich, K. Collins, A. Henry, H. Lee, Q. Hao, M.S. Dresselhaus, G. Zhu, Y. Lan, X. Wang, G. Joshi, D. Wang, Z. Ren	Electroplating: an opportunity for thermoelectric materials C. Boulanger	
9:00	Quick Break		
	Chair: Eckhard Müller	Chair: Jan König	Chair: Jürgen Janek
9:05	Advanced thermoelectric materials and components for Radioisotope Thermoelectric Generators for space power applications T. Caillat, S. Chi, B. Li, E. Brandon, S. Firdosy, V. Ravi, C.-K. Huang, B. Cheng, J. Paik, P. Gogna, J.-P. Fleurial	Preparation and properties of nanoporous Bi ₂ Te ₃ base thermoelectric material Y.-H. Zhang, G.-Y. Xu, F. Han, Z. Wang, C.-C. Ge	Anisotropic thermopower in metal-semiconductor multilayer systems C. Reitmaier, F. Walther, A. Kyarad, H. Lengfellner
9:25	Segmented thermoelectric devices for high grade heat sources J.-P. Fleurial, P. Gogna, B.C.-Y. Li, S.C. Chi, S. Firdosy, B.J. Chen, C.-K. Huang, V. Ravi, T. Caillat, S. Bux, K. Star	Spark plasma sintering of highly textured V-VI thermoelectrics J. Schmidt, D. Ebling, A. Jacquot, H. Boettner, T. Weißgärber, B. Kieback	Huge thermoelectric power factor and correlated electrons in FeSb ₂ P. Sun, N. Oeschler, S. Johnson, Y. Sun, B.B. Iversen, F. Steglich
9:45	Thermoelectric recovery of low-grade heat L. Anatyчук	Effects of processing route on the microstructure and thermoelectric transport properties of bismuth telluride-based alloys N. Gothard, T.M. Tritt, J.E. Spowart	Highly dynamic chalcogen chains in silver(I) polychalcogenide halides: A new concept for thermoelectrics? T. Nilges, M. Bawohl, S. Lange, J. Messel, O. Osters
10:05	Coffee Break		
	Chair: Ctirad Uher	Chair: Hanns-Ulrich Habermeier	Chair: Dirk Ebling
10:30	Thermal stability of p-doped Ba ₈ Ga ₁₆ Ge ₃₀ clathrates D. Cederkrantz, A. Saramat, G.J. Snyder, A.E.C. Palmqvist	Nanostructuring of thermoelectric strontium titanate ceramics Y. Wang, K. Fujinami, R. Zhang, K. Koumoto	Vehicle waste heat recovery system design and characterization L.E. Bell, D.T. Crane
10:50	Ba-Cu-Si clathrates: Phase equilibria, crystal chemistry and physical properties X. Yan, I. Bednar, M. Ikeda, G. Giester, E. Bauer, P. Rogl, S. Paschen	Self-assembled Germanium Quantum-Dot Supercrystals in Silicon with Extremely Low Thermal Conductivities J.N. Gillet	Solar thermoelectric generator R. Amaty, R.J. Ram
11:10	Preparation of N-type BaGaGe clathrate heterogeneous compound by vacuum arc remelting Z.-W. Chang, L.-S. Chang, J.-S. Lee, M.-H. Wei	Enhancement of thermoelectric efficiency in oxygen deficient Sr _{1-x} La _x TiO _{3-δ} ceramics due to its narrow conducting band J. Liu, C.L. Wang, W.B. Su, J.C. Li, J.L. Zhang, H.C. Wang, L.M. Mei	Aircraft specific thermoelectric generator module D. Samson, T. Otterpohl, M. Kluge, U. Schmid, T. Becker
11:30	Giant thermopower at low temperatures in novel clathrates Ba ₈ {Cu,Zn} _x Ge _{46-x} I. Bednar, G. Csaszar, M. Menhart, S. Bühler-Paschen, E. Bauer, N. Nasir, A. Grytsiv, N. Melnychenko-Koblyuk, P. Rogl	Influence of the alkali on the physical properties of lamellar cobaltites M.F.C. Pollet, M. Blangero, R. Berthelot, J.-P. Doumerc, R. Decourt, D. Carlier, C. Delmas	High efficiency thermoelectric generator M. Nedelcu

Time	Room 1, Tuesday	Room 2, Tuesday	Room 3, Tuesday
11:50	Thermoelectric Zintl Compounds in R-T-Sb (R = Ba, Eu, Yb; T = Zn, Cd) Systems X.J. Wang, H. Zhang, M.B. Tang, X.X. Yang, H.H. Chen, Z.Y. Man, U. Burkhardt, J.T. Zhao, Y. Grin	Thermoelectric properties of polycrystalline $\text{Ca}_{0.9}\text{Yb}_{0.1}\text{MnO}_3$ prepared from the gas-phase-reaction-derived nanopowder A. Kosuga, R. Funahashi	Micro-CHP: Experiences with thermoelectric generators integrated in a wood pellet combustion unit G. Friedl, W. Moser, K. Berndt, R. Schöpke
12:10	Design of thermoelectric clathrates through transition metal substitution J. Yang, X. Shi, L. Xi, W. Zhang, L. Chen, J. Yang	Thermoelectric properties of Sr and Mn-substituted SrMnO_3 B. Dabrowski, S. Kolesnik, K. Swierczek	Performance evaluation of a double-pass thermoelectric solar water heater C. Lertsatitthanakorn, N. Khasee, B. Bubphachot
12:30	Lunch		
	Chair: Yuri Grin	Chair: Jeff Sharp	Chair: Janusz Tobola
14:00	Advanced high temperature bulk materials J.-P. Fleurial, C.-K. Huang, P. Gogna, T. Caillat, A. May, E. Toberer, J.G. Snyder, R. Blair, S. Bux, K. Star, R.B. Kaner, B.S. Dunn, C. Cox, S.M. Kauzlarich	Start-up behaviour of power management electronics for aircraft applications T. Otterpohl, D. Samson, M. Kluge, T. Becker, U. Hilleringmann	Monte Carlo simulation of single barrier microrefrigerators at cryogenic temperatures M. Zebarjadi, Y. Ezzahri, X. Wang, Z. Bian, A. Shakouri
14:20	High temperature thermoelectric properties of the Zintl phases $\text{Yb}_{11}\text{MSb}_9$ (M = Ga, In) T. Yi, C.A. Cox, E.S. Toberer, G.J. Snyder, S.M. Kauzlarich	Multi fuel thermoelectric portable electric power generator/space heater A.S. Kushch, J.C. Bass, P. Sarmiento	Self-consistent drift-diffusion transport in thermoelectrics P. Santhanam, R.J. Ram
14:40	High temperature transport in the layered Zintl compounds SrZnSb_2 and SrZn_2Sb_2 E.S. Toberer, A.F. May, B. Melot, G.J. Snyder	Investigation of the heat transfer in a thermal electrical cooling system S. Jocham, W. Nicolai, C.-D. Kohl	Simulation of heat loss and its impact on the thermoelectric device performance K. Bartholome, M. Bartel, M. Jäggle, D. Ebling
15:00	Thermoelectric properties of anti- Th_3P_4 rare-earth antimonides A. Chamoire, F. Gascoin, C. Estournès, J.-C. Tedenac	Thermal comfort study of a compact thermoelectric air conditioner C. Lertsatitthanakorn	Thermoelectric heat pump as a thermal cyclers V. Semenyuk
15:20	Enhanced thermal transport of strongly correlated electrons V. Zlatic	ZT Measurement under Large Temperature Difference G. Min	Optimization of the heat exchangers of a thermoelectric generation system A. Martínez, J.G. Vián, D. Astrain, A. Rodríguez
15:40	Coffee Break		
	Chair: Jean-Pierre Fleurial	Chair: Veljko Zlatic	Chair: Gang Chen
16:10	High figure of merit of charge-compensated n-type skutterudites C. Uher, C.-P. Li, S. Ballikaya	Thermoelectric properties of a dot in the single electron transistor configuration X. Zianni	Thermoelectric thin film material for Mg_2Ge prepared by pulsed laser deposition L.-P. Chuang, T.T. Tan, N. Savvides, S. Li
16:30	Enhanced interatomic potential for skutterudite CoSb_3 in molecular dynamics simulations X. Yang, A. Zhou, L. Liu, Q. Zhang, P. Zhai	Is a constant relaxation time suitable for periodic 1D stacks of InAs/GaAs quantum dots? V.M. Fomin, P. Kratzer	The structures of new misfit layered compounds $[(\text{MX})_{1+n}]_n[\text{TX}_2]_m$ M. Smeller, C. Heideman, Q. Lin, N. Nguyen, R. Rostek, P. Zschack, D.C. Johnson
16:50	Microstructure and thermoelectric properties of barium and indium double-filled skutterudite $\text{Ba}_{0.3}\text{In}_{0.2}\text{Co}_{3.95}\text{Ni}_{0.05}\text{Sb}_{12}$ coated by SiO_2 nanoparticles P. Wei, W.Y. Zhao, C.L. Dong, B. Ma, Q.J. Zhang	Study on mechanical properties of single crystal bismuth telluride nanowire by molecular dynamics simulation Y. Tong, F.J. Yi, L.S. Liu, Q.J. Zhang	Effect of vacancy distribution on the thermal conductivities of Ga_2Te_3 and Ga_2Se_3 C. Kim, K. Ken, H. Muta, S. Yamanaka
17:10	Thermoelectric properties of n-type CoSb_3 -based double-filled skutterudites S. Bai, L. Chen, W. Zhang, Y. Pei, Z. Xiong	Analysis of thermoelectric properties of scaled silicon nanostructures using an atomistic tight-binding model N. Neophytou, M. Wagner, H. Kosina, S. Selberherr	Nuclear inelastic scattering by antimony and tellurium in thermoelectric materials R.P. Hermann, A. Möchel, T. Claudio

Time	Room 1, Tuesday	Room 2, Tuesday	Room 3, Tuesday
17:30	Development of high performance CoSb ₃ -based skutterudite materials by means of multiple void filling and powder-based nanostructuring R. Hassdorf, R.C. Mallik, C. Stiewe, S. Schlecht, E. Müller	A non-equilibrium molecular dynamics study of in-plane thermal conductivity of silicon thin films T.-M. Chang, C.-C. Weng, M.-J. Huang, C.-K. Liu, C.-K. Yu	Structural phase transition and thermoelectric properties of AgPb ₁₈ SbTe ₂₀ under compression R. Kumar, M. Balasubramanian, M.K. Jacobsen, A.S. Bommanavar, M.G. Kanatzidis, R. Gordon, S. Yoneda, A.L. Cornelius
18:00	Poster Session 2		

Wednesday, July 29

Time	Room 1, Wednesday	Room 2, Wednesday	Room 3, Wednesday
	Chair: Cestmir Drasar	Chair: Ryoji Funahashi	
8:00	Thermoelectric thin film devices: miniaturized thermoelectric generators, Peltier-coolers and sensors with fast response times J. Nurnus	Do embedded nanodots make better thermoelectrics? D.G. Cahill, Y.K. Koh	
8:30	Potential alloys based on IV-VI compounds for thermoelectric power generation Y. Gelbstein	Development of perovskite-type thermoelectric ceramics A. Weidenkaff, R. Robert, P. Tomes, M.H. Aguirre, M. Trottmann	
9:00	Quick Break		
	Chair: Cestmir Drasar	Chair: Ryoji Funahashi	Chair: Kilian Bartholome
9:05	Recent progress in thermoelectric materials and devices research and their application in China Q.J. Zhang	A trial product of thermal rectifier W. Kobayashi, Y. Teraoka, I. Terasaki	Thermoelectric modules for millisecond processes: modeling and tests A.A. Vedernikov, A.V. Markovich, A.V. Kokoreva, N. Bastin
9:25	Seebeck coefficient of an individual PbTe nanowire grown by a vapor transport method S.H. Lee, S. Jang, J.M. Lee, J.W. Roh, J. Park, W. Lee	Fabrication and thermoelectric properties of new La ₂ O ₃ -Fe ₂ O ₃ -Co ₂ O ₃ system W. Su, C. Wang, J. Zhang, J. Liu, P. Zheng, H. Wang	Optimal fluid direction in the paths among thermoelectric multi-panels R.O. Suzuki, Y. Sasaki
9:45	Influence of starting materials and Spark Plasma Sintering process parameters on the metallurgical characteristics and transport properties of (Bi) ₂ Te ₃ -based alloys N.Y.C. Yang, M. Morita, A.M. Morales, P.A. Sharma, M. Cliff, Z. Zhang, Y. Zhou, E.J. Lavernia	Roles of Na vacancies on electronic properties of Na _x CoO ₂ : A first principles computational study M. Yoshiya, T. Okabayashi, M. Tada	Optimization of small ΔT thermoelectric systems M. Freunek, W.D. Walker, A. Moser, L.M. Reindl
10:05	Coffee Break		
	Chair: David Johnson	Chair: Joseph Heremans	Chair: Jeff Snyder
10:30	Composition control of SiGe thin films on glass deposited by sputtering Si targets partially attached with Ge M.-F. Wu, L.-S. Chang, D.-S. Wu, T.-M. Wu	Nanoscale precipitation in bulk PbTe-based alloys T. Ikeda, N.A. Heinz, V.A. Ravi, G.J. Snyder	High efficiency TE generator design and characterization D. Kossakovski, D. Crane, R. Koripella
10:50	A study of thermoelectric properties and microstructure of phase change materials as potential thermoelectric generators J. Tomforde, W. Bensch, J.D. König, M. Winkler, H. Böttner, L. Kienle	High performance (Ag _x SbTe _{x/2+1}) ₁₅ (GeTe) ₈₅ thermoelectric materials prepared by melt spinning method Y. Chen, S.H. Yang, S.N. Zhang, C. Yu, T.J. Zhu, X.B. Zhao	Encapsulated thermoelectric modules and compliant pads development for advanced thermoelectric systems M. Kambe, T. Jinushi, Z. Ishijima

Time	Room 1, Wednesday	Room 2, Wednesday	Room 3, Wednesday
11:10	Effect of electric current stressing on thermoelectric properties of Bi-Sb-Te and Bi-Se-Te thin films prepared by sputtering C.-N. Liao, K.-M. Liou, H.-S. Chu	Structural evolution in p-type $\text{Ge}_x(\text{Sn}_y\text{Pb}_{1-y})_{1-x}\text{Te}$ thermoelectric alloys following a spinodal decomposition reaction B. Dado, Y. Gelbstein, D. Mogilyansky, V. Ezersky, M.P. Dariel	Realistic measurements of new high temperatures TEG-modules J.D. Koenig
11:30	Pulse electroplating: a derivate form of electrodeposition for the improvement of $(\text{Bi}_{1-x}\text{Sb}_x)_2\text{Te}_3$ thin films V. Richoux, S. Diliberto, C. Boulanger	Thermoelectric properties of pseudo-binary alloy $(\text{Ag}_{0.365}\text{Sb}_{0.558}\text{Te})_{0.975}(\text{GeTe})_{0.025}$ prepared by a rapid solidification J.L. Cui, H. Fu, X.L. Liu, D.Y. Chen, W. Yang	Module geometry and contact resistance of thermoelectric generators analysed by multiphysics simulation D.G. Ebling, K. Bartholome, M. Bartel, M. Jägler
11:50	Effect of substrate on the thermoelectric properties of n-type Bi-Te-Se thin film prepared by electrodeposition J. Yiteng, W. Wei, Q. Yanling, L. Feihui, G. Jianping	Precipitation of silver telluride in rock-salt structured thermoelectric tellurides D.L. Medlin, J.D. Sugar, P.A. Sharma, M. Hekmaty, J.L. Lensch-Falk	Efficiency of pulsed thermoelectric generator J.G. Stockholm, M.Z. Nedelcu, A. Jelea, A. Manea
12:10	A mechanistic study of the electrochemical deposition of Bi_2Te_3 thin films Y. Ma, A. Johansson, E. Ahlberg, A. Palmqvist	Preparation and thermoelectric properties of $\text{AgPb}_{18-x}\text{Sn}_x\text{SbTe}_{20-y}\text{Se}_y$ materials H. Li, K.F. Cai, H.F. Wang	Nanostructured interfaces for thermoelectrics Y. Gao, M.A. Panzer, A.M. Pettes, A.M. Marconnet, S. Dogbe, R. Wheeler, K.E. Goodson
12:30	Black Forest Tour 20:00 Banquet		

Thursday, July 30

Time	Room 1, Thursday	Room 2, Thursday	Room 3, Thursday
	Chair: George Nolas	Chair: Heiner Linke	Chair: Dirk Ebling
8:00	Power generation and durability of oxide thermoelectric modules at high temperature R. Funahashi, S. Urata, Y. Matsumura, T. Urata, K. Iwasaki, E. Takeuchi, M. Kawai, A. Kosuga	Thermoelectric measurements from micro-scale to devices – how accurate can we measure? E. Müller, P. Ziolkowski, G. Karpinski, C. Stiewe, P. Blaschkewitz	The status and prospect of organic thermoelectric polymers C.-C. Yang, M.-S. Jeng, B.-Y. Jin, K.-C. Chang, Y.-W. Chou, H.-C. Lin
8:30	Spark plasma sintering applications on thermoelectric materials Y. Grin	Study of Fermi surface properties in disordered thermoelectrics from multiple scattering theory calculations J. Tobola, B. Wiendlocha, S. Kaprzyk	8:20 - Organic semiconductors for thermoelectrical generators M. Scholdt, H. Do, A. Pütz, A. Colsmann, U. Lemmer, J. König, H. Böttner 8:40 - Thermoelectric figure of merit of molecular-based two-dimensional organic conductors H. Yoshino, A. Morimoto, G.C. Papavassiliou, K. Murata
9:00	Quick Break		
	Chair: Dirk Ebling	Chair: George Nolas	Chair: Heiner Linke
9:05	Peierls Distortion as a Route to High Thermoelectric Performance in $\text{In}_4\text{Se}_{3-6}$ Crystals J.-S. Rhyee, K. H. Lee, S. M. Lee, E. Cho, S. I. Kim, E. Lee, Y. S. Kwon, J. H. Shim, G. Kotliar	Semiconducting Half Heusler compounds for thermoelectric applications C. Felser, J. Barth	Can thermotunneling improve the currently realized thermoelectric conversion efficiency? U. Dillner
9:25		Influence of boundary structures on the thermoelectric properties of $\text{Hf}_{1-x}\text{Zr}_x\text{NiSn}$ half-Heusler alloys C. Yu, J. Jin, J.T. Zhu, K. Xiao, B.X. Zhao	Theoretical predicting thermoelectric properties of organic-inorganic composites R. Yang, F.J. Yi, P.C. Zhai
9:45	9:35 Preparation and thermoelectric properties of high-performance Sb additional $\text{Yb}_{0.2}\text{Co}_4\text{Sb}_{12+y}$ bulk materials with nanostructure H. Li, X. Tang, X. Su, Q. Zhang	Experimental and theoretical investigation of the hole Fermi surface of Mg_2Sn C.M. Jaworski, H.Y. Chen, N. Savvides, B. Wiendlocha, J. Tobola, J.P. Heremans	Heat flux flow of PN-junction gallium arsenide semiconductor device S. Yamaguchi, S. Fukuda, T. Kawahara, H. Nakatsugawa, Y. Okamoto, Y. Kitagawa
10:05	Coffee Break		

Time	Room 1, Thursday	Room 2, Thursday	Room 3, Thursday
	Chair: Lidong Chen	Chair: David Cahill	Chair: Anke Weidenkaff
10:30	Generation of nanosized particles during mechanical alloying and their evolution through the hot extrusion process in bismuth telluride based alloys D. Vasilevskiy, M.S. Dawood, J.-P. Masse, S. Turenne, R.A. Masut	Thermal conductivity, electrical resistivity and thermoelectric power measurement setup in the temperature range of 4–310 K using closed-cycle cryostat J. Hejtmanek, K. Knizek	Optimization of $\text{Mo}_3\text{Sb}_{7-x}\text{Te}_x$ by addition of small metal atoms H. Xu, K.M. Kleinke, T. Holgate, T.M. Tritt, H. Kleinke
10:50	Bulk nanostructured polycrystalline p-Bi-Sb-Te thermoelectrics obtained by mechanical activation method with hot pressing L.P. Bulat, V.T. Bublik, I.A. Drabkin, V.V. Karataev, V.B. Osvenskii, Y.N. Parkhomenko, G.I. Pivovarov, D.A. Pshenai-Severin, N.Y. Tabachkova	Transport properties measurement on problematic samples with the 3Ω -method A. Jacquot, M. Jaegle	Reduced thermal conductivity by isoelectronic substitution of FeSb_2 N. Oeschler, P. Sun, S. Johnsen, B.B. Iversen, F. Steglich
11:10	Preparation and thermoelectric properties of Bi_2Te_3 -based nanostructures-polymer nanocomposites K.F. Cai, Y.Y. Wang, B.J. An, S. Shen	Fabrication and characterization of nanopillars for silicon-based thermoelectrics A. Stranz, Ü. Sökmen, E. Peiner, A. Waag	Potential of $\text{Bi}_{12}\text{As}_2$ as an efficient thermoelectric material Y. Gong, Y. Zhang, J.H. Edgar, Y. Zhang, M. Dudley, M. Kuball
11:30	Bulk nanostructured thermoelectric materials: Preparation, structure and properties T.-J. Zhu, Y.-Q. Cao, Q. Zhang, X.-B. Zhao	Mapping the thermoelectric power of Ti_3SiC_2 with nanometer resolution S. Cho, H.-K. Lyee, H.-I. Yoo	New strategies for high performance thermoelectric materials S. Lee, J. Rhyee, K. Lee, S. Kim, E. Lee, E. Cho, H. Kim
11:50	Nanocrystalline thermoelectric materials synthesized by alkalide reduction J. Michel, A. Bassa, C. Yan, M. Wagner	Measurement methods for determination of energy-conversion efficiency of thermoelectric generator systems D. Tatarinov, A. Vogelsang, M. Schuth, G. Bastian	Preparation and thermoelectric properties of $\text{Ru}_{1-x}\text{Fe}_x\text{Al}_2$ S. Takahashi, H. Muta, K. Kurosaki, S. Yamanaka
12:10	On-film formation of nanowires for high-efficiency thermoelectric devices J. Ham, W. Shim, S. Lee, P.W. Voorhees, W. Lee	Recent metrology development at the US national institute of standards and technology (NIST) W. Wong-Ng, J. Martin, N. Lowhorn, E.L. Thomas, M. Otani, M.L. Green, T.N. Tran	Thermal conductivity and other transport properties of $\text{Mg}_2\text{Sn:Ag}$ crystals N. Savvides, H.Y. Chen
12:30	Lunch		
	Chair: Claude Godart	Chair: Martin Köhne	Chair: Hubert Scherrer
14:00	Enhanced thermoelectric properties of filled-skutterudite $\text{Ba}_{0.22}\text{Co}_4\text{Sb}_{12}$ with fine nano- TiO_2 dispersion by a novel compositing route Z. Xiong, X. Huang, X. Chen, S. Bai, L. Chen	Valence electron control in Fe-substituted chimney-ladder solid solution $(\text{Mn}_{1-x}\text{Fe}_x)\text{Si}_y$ ($y \sim 1.7$) Y. Miyazaki, Y. Saito, K. Hayashi, K. Yubuta, T. Kajitani	Enhanced efficiency in optoelectronic systems using thermoelectrics A. Vogelsang, D. Tatarinov, G. Bastian
14:20	Novel skutterudites $(\text{Pr,Nd})_{1-y}(\text{Fe}_{1-x}\text{Co}_x)_4\text{Sb}_{12}$ and $(\text{Pr,Nd})_{1-y}(\text{Fe}_{1-x}\text{Ni}_x)_4\text{Sb}_{12}$ G. Rogl, A. Grytsiv, E. Bauer, D. Rojs, H. Mueller, P.F. Rogl, M. Reinecker, J. Koppensteiner, M. Zehetbauer	Improved thermoelectric performance of higher manganese silicides with Ge-addition A.J. Zhou, X.B. Zhao, T.J. Zhu, S.H. Yang, R. Hassdorf, T. Dasgupta, C. Stiewe, E. Müller	A 10 kW thermoelectric generator system for waste heat conversion R. Schöpke, K. Berndt, A. Priemuth, W. Klose
14:40	Enhanced Power Factor and Low Lattice Thermal Conductivity in Filled Skutterudites Q. Li, Z. Lin, J. Zhou, Q. Jie, X. Shi, J. Yang	Electron density distribution in Mn_4Si_7 T. Kajitani, K. Yubuta, T. Shishido, S. Okada	Thermoelectric Generating Modules using Bi-Te alloys for Wasted Heat Recovery H. Kaibe, S. Fujimoto, T. Kajihara, K. Ishida, H. Mizukami, S. Morimoto, H. Hachiuma

Time	Room 1, Thursday	Room 2, Thursday	Room 3, Thursday
15:00	High temperature thermoelectric performance and mechanical properties of macro- and nano-Mm _y Fe _{4-x} {Co, Ni} _x Sb ₁₂ skutterudites L. Zhang, A. Grytsiv, P.F. Rogl, E. Bauer, J. Koppensteiner, M. Reinecker, H. Kabelka, W. Schranz	Pressure-less preparation of polycrystalline β-FeSi ₂ bulk with a Na melt T. Yamada, E. Kariya, H. Morito, H. Yamane	Spatially resolved reaction calorimetry in micro-reactors using a thermogenerator array M. Jaegle, J. Antes, M. Gegenheimer, S. Löbbbecke, H. Krause, M. Bartel, A. Jacquot, J. Fuss
15:20	Electronic structures and transport properties of single-filled CoSb ₃ A. Zhou, L. Liu, P. Zhai, W. Zhao, Q. Zhang	Crystal structure and thermoelectric properties of chimney-ladder compounds in the Ru ₂ Si ₃ -Mn ₄ Si ₇ pseudobinary system N.L. Okamoto, T. Koyama, K. Kishida, K. Tanaka, H. Inui	Fabrication and testing of skutterudite-based thermoelectric generators for waste heat recovery J. Sakamoto, T. Caillat, E. Case, I. Chi, D. Klienow, J.-P. Fleurial, R. Maloney, J. Ni, T. Ruckle, R. Schmidt, E. Timm, H. Schock
15:40	Coffee Break		
	Chair: Joachim Nurnus	Chair: Christophe Goupil	Chair: Jeff Snyder
16:10	Heusler thin film superlattices as model systems for thermoelectric materials C. Felser, G. Jakob, A. Wiedenkauff, J. Barth, T. Eichhorn, G.H. Fecher	Thermoelectric and magnetic properties of PrCo _{1-x} Ni _x O ₃ (x = 0.0 - 0.7) P. Tomeš, R. Robert, M.H. Aguirre, J. Hejtmanek, A. Weidenkaff	Thermal stability of thermoelectric Zn ₄ Sb ₃ in argon H. Yin, B.L. Pedersen, M. Christensen, E. Nishibori, S. Aoyagi, B.B. Iversen
16:30	Atomic layer thermopile and its application H.-U. Habermeier, P.-X. Zhang	A mechanism of carrier doping in the perovskite cobalt oxide NdCoO ₃ I. Terasaki, D. Sawaki, S. Shibusaki	Chemical route for formation of thermoelectric Zn ₄ Sb ₃ thick films A. Denoix, A. Salaiappan, R.-M. Ayrat, F. Rouessac, J.-C. Tédénac, M. Plissionnier, M. Borella
16:50	Design and manufacture of high packing density micro-thermoelectric power generator based on film thermoelectric materials W. Wei, L. Feihui, Q. Yanling, Z. Yanbing, W. Yang, J. Yiteng, G. Jianping	Mn-substitution effect on thermal conductivity of delafossite-type oxide CuFeO ₂ T. Nozaki, K. Hayashi, T. Kajitani	First principles calculations on Zn ₄ Sb ₃ O.M. Lovvik, E. Flage-Larsen
17:10	Applying microsystems technology in the fabrication of thin-film thermoelectric devices L.M. Goncalves, P. Alpuim, J.H. Correia	New rhodium oxides as thermoelectric materials S. Hébert, W. Kobayashi, D. Pelloquin, O. Perez, A. Maignan	Molecular dynamics simulations for β-Zn ₄ Sb ₃ thermoelectrical materials: Enhanced interatomic potential and mechanical behavior G.D. Li, Y. Li, X.Q. Yang, L.S. Liu
17:30	SiGe thin film thermoelectric devices using catalytic combustor W. Shin, M. Nishibori, T. Itoh, N. Izu, I. Matsubara	Lattice thermal conductivity and thermoelectric properties of Al/Ga co-doped ZnO M. Ohtaki, K. Yamamoto	N-type ZnSb doped with Te prepared by direct melting method T. Ueda, C. Okamura, Y. Noda, K. Hasezaki
18:00	Closing Remarks Harald Böttner		
18:20	Farewell		

Poster Session 1, Monday, July 27

Chair: Jiri Hejtmanek PM-1 - 13			
Advanced Characterization	Difference between thermo- and pyroelectric Co-perovskites measured by high-temperature gradient W. Wunderlich, H. Fujiwara	Microchips for the investigation of thermal and electrical properties of individual nanowires F. Völklein, R. Neumann, M.E. Toimil-Molaes, S. Müller, O. Picht, H. Reith, M. Schmitt	Mass spectrometry observations in thermoelectric thin ($\text{Bi}_{0.15}\text{Sb}_{0.85}$) ₂ Te ₃ - and Bi ₂ (Se _{0.1} Te _{0.9}) ₃ - films during thermal treatment K. Rothe, M. Stordeur, F. Syrowatka, H.S. Leipner
	Power factor anisotropy of p-type and n-type conductive thermoelectric thin Bi-Sb-Te-films K. Rothe, M. Stordeur, H.S. Leipner	Thermoelectric properties of icosahedral Al-Pd-(Mn,Re) quasicrystals: Effect of improvement of microstructure and Ga substitution for Al atoms Y. Takagiwa, T. Kamimura, J.T. Okada, H. Kitahata, I. Kanazawa, K. Kimura	Neutron diffraction and high temperature thermoelectric properties of the Mo _{3-x} Ru _x Sb ₇ compounds C. Candolfi, J. Leszczynski, P. Masschelein, C. Chubilleau, B. Lenoir, A. Dauscher, E. Guilmeau, J. Hejtmanek, S.J. Clarke, R.I. Smith
	Annealing effect of thermoelectric Bi ₂ Te ₃ nanowires grown by pulsed electrodeposition J. Lee, Y. Kim, U. Goesle, S. Fahrangfar, K. Nielsch	Evaluation of thermal conductivity in BiTe thin film S. Ikeuchi, K. Shimada, S. Tanaka, K. Miyazaki	Thermal conductivity of individual single-crystalline Bi nanowires grown by stress-induced recrystallization J.W. Roh, R. Chen, J.M. Lee, J. Ham, S. Lee, A. Hochbaum, K. Hippalgaonkar, P.D. Yang, A. Majumdar, W. Kim, W. Lee
	Mechanical properties of Bi-Te thin films measured using micro tensile test S.W. Han, T.O. Kim, B.G. Jang, S.M. Hyun, J.Y. Kim	Coefficient of thermal expansion of Bi-Te thin films S.W. Han, T.O. Kim, B.G. Jang, S.M. Hyun, J.Y. Kim	Thermoelectric power of an individual single-crystalline Bi nanowire grown by stress-induced recrystallization J.M. Lee, S.H. Lee, J. Ham, J.W. Roh, W. Lee
	Thermoelectric properties and pressure induced structural transitions in CuSbS ₂ R. Kumar, J. Paladugu, R. Venkat, A.L. Cornelius		

Chair: Anke Weidenkaff PM-14 - 20			
Antimonides	Influence of Ag inclusions on the thermoelectric properties of ZnSb M. Böttger, K. Valsset, S. Deledda, T.G. Finstad	Wet chemistry route towards nanostructures of thermoelectric antimonides C.S. Schade, E. Mugnaioli, W. Tremel	Single phase β -Zn ₄ Sb ₃ prepared by mechanical grinding method C. Okamura, T. Ueda, K. Hasezaki
	Thermoelectric characterisation of zone melted and quenched Zn ₄ Sb ₃ C. Stiewe, T. Dasgupta, L. Böttcher, B. Pedersen, M. Christensen, E. Müller, B. Iversen	Microstructure and thermoelectric property studies of ZnSb with Sb and Zn ₄ Sb ₃ inclusions K. Valsset, M. Böttger, O.B. Karlsen, J. Taftø	Effects of indium impurity on the crystal structure of β -Zn ₄ Sb ₃ based on rietveld refinement W. Zhao, S. Chen, B. Ma, P. Wei, C. Dong, Q. Zhang
	Growth and thermoelectric transport properties of highly oriented FeSb ₂ thin films Y. Sun, S. Johnsen, P. Eklund, M.B. Sillassen, J. Böttiger, N. Oeschler, P. Sun, F. Steglich, B.B. Iversen		

Chair: Cestmir Drasar PM-21 - 33			
Bi ₂ Te ₃ Related Materials	Thermoelectric properties of p-type Bi-Sb-Te compound prepared by plasma arc discharge process G.G. Lee, D.Y. Lee, G.H. Ha	Texture and thermoelectric properties of Bi _{0.5} Sb _{1.5} Te ₃ prepared by hot-press deformation H. Kitagawa, A. Kurata, H. Araki, S. Morito, E. Tanabe	Preparation of highly oriented p-type (Bi _{0.25} Sb _{0.75}) ₂ Te ₃ material by melt spinning and spark plasma sintering deformation Q. Lu, L. Wang, X. Zhang, J. Zhang
	Severe plastic deformation of Bi ₂ Te ₃ -based thermoelectric semiconductor for forming preferred orientation M. Ashida, T. Hamachiyo, K. Hasezaki, H. Matsunoshita, M. Kai, Z. Horita	Thermoelectric properties of Bi ₂ Te ₃ compound prepared by aqueous chemical method followed with spark plasma sintering J. Jiang, L.Y. Li, W. Li, L.M. Zhou, J.G. Xu, P. Cui	Technological development of thermoelectric materials manufacturing to satisfy EC RoHS directives O. Sokolov, S.Y. Skipidarov, N.I. Duvankov, V.A. Kurganov
	Features of the behavior of figure of merit for p-type solid solutions based on bismuth and antimony chalcogenides L.N. Lukyanova, V.A. Kutasov, P.P. Konstantinov, V.V. Popov	Figure of merit of (Sb _{0.75} Bi _{0.25}) _{2-x} In _x Te _{3-y} Se _y single crystals C. Drasar, P. Lostak, C. Uher	The power factor of Bi _{2-x} Tl _x Se ₃ single crystals P. Janicek, C. Drasar, L. Benes, P. Lostak

	Thermal expansion of n-type $\text{Bi}_2\text{Te}_{2.88}\text{Se}_{0.12}$ and p-type $\text{Bi}_{0.52}\text{Sb}_{1.48}\text{Te}_3$ solid solutions from 200 K to 700 K Y. Stern, L. Pavlova, R. Mironov	Enhancement of thermoelectric properties of functionally graded Bi-Sb-Te based compounds by electrical sintering L.-C. Wu, C.-N. Liao	Thermoelectric properties at high temperature of (Bi-Sb-Te) compounds doped with silver B.-S. Kim, J.-K. Lee, B.-K. Min, M.-W. Oh, S.-D. Park, H.-W. Lee, M.-H. Kim
	Controlled Electrochemical Growth of Bi_2Te_3 Nanowires for Thermoelectric Applications O. Picht, S. Müller, M.E. Toimil-Molares, R. Neumann		

Heusler Compounds	Chair: Martin Köhne PM-34 - 37		
	Thermoelectric properties of melt-spun ribbons with TiNiSn-based half-Heusler phases M. Hasaka, T. Morimura, Y. Yatsuki, T. Suetsugu, H. Nakashima	Large seebeck voltage for NbNiSn composites even with small half-Heusler amount W. Wunderlich, K. Uematsu	Study of electronic structure and defect formation in $\text{Ti}_{1-x}\text{Ni}_{1+x}\text{Sn}$ half-Heusler alloys H. Hazama, R. Asahi, M. Matsubara, T. Takeuchi
	Microstructures of annealed TiNiSn-based alloy ribbons T. Morimura, M. Hasaka, S. Yoshida, H. Nakashima		

Metrology	Chair: Yaniv Gelbstein PM-38 - 41		
	The use of Harman technique for figure of merit z measurements in cascade thermoelectric converters M.A. Korzhuev, E.S. Avilov	Measurement of thermoelectric properties of miniature samples I.A. Drabkin, L.B. Ershova, S.A. Glyazer, D.A. Kondratiev, A.L. Ogryzko, Y.V. Zakhartsev	High temperature Z-meter measurement R. Amatya, R.J. Ram
	Generator test facility down to cryogenic temperatures D. Platzek, P. Blaschkewitz, G. Baehr, G. Karpinski, C. Stiewe, E. Mueller		

Nanostructured Materials	Chair: Bertrand Lenoir PM-43 - 56		
	A novel thermoelectric material: Si nanocrystals thin film Y. Chao, H. Ni, X. Yuan	Electrochemical deposition and characterisation of $\text{Bi}(1-x)\text{Sb}(x)$ nanowires S. Müller, O. Picht, R. Neumann	Thermoelectric measurements on ZnO/ZnS multilayers G. Homm, M. Piechotka, A. Kronenberger, C. Heiliger, P.J. Klar, B.K. Meyer
	Nanostructure, excitations, and thermoelectric properties of Bi_2Te_3 -based nanomaterials N. Peranio, O. Eibl	Thermoelectric material with improved performance made from bismuth telluride nanopowders A.I. Holopkin, S.B. Nesterov, V.A. Romanko, V.N. Abrutin	Bismuth nanoparticles and their versatile applications as starting compounds for new nanostructured thermoelectric materials M. Scheele, N. Oeschler, K. Meier, C. Klinke, H. Weller
	Thermoelectric property optimization of bismuth telluride by high energy ball milling and spark plasma sintering C.H. Kuo, W.S. Su, Y.-W. Chou, M.-L. Chang, J.-R. Ku, C.-S. Hwang, M.-S. Jeng	Thermoelectric bismuth telluride thin films and nanowires C. Giroud Garampon, D. Bourgault, L. Cagnon, J.-L. Garden, E. Andre, N. Caillault, L. Carbone	Transport properties of $\text{PbTe}/\text{CoSb}_3$ nanocomposites C. Chubilleau, B. Lenoir, A. Dauscher, C. Candilfi, E. Guilmeau, C. Godart
	Wire diameter dependence of thermoelectric properties on bismuth nano-wire molded by quartz template D. Nakamura, M. Murata, Y. Hasegawa, T. Komine, D. Uematsu, S. Nakamura, T. Taguchi	Influence of bismuth nano-wire edges treatment to thermoelectric properties M. Murata, D. Nakamura, Y. Hasegawa, T. Komine, D. Uematsu, S. Nakamura, T. Taguchi	CoSb_3 - CeO_2 nanocomposites E. Alleno, L. Chen, O. Rouleau, C. Godart
Lattice dynamics of nanostructured Si and ZnSb T. Claudio, G. Schierning, C. Schade, W. Tremel, R. Hermann	Thermoelectric characterization of nanowire films S. LeBlanc, Y. Gao, R. Noriega, C.-M. Hsu, K. Goodson		

Chair: Thierry Caillat PM-57 - 66			
Novel Materials	Transport properties of RuAl ₂ H. Muta, S. Takahashi, K. Kurosaki, S. Yamanaka	Morphology of rare earth borides T. Mori, T. Nishimura, D. Berthebaud, T. Shishido, K. Nakajima, U. Burkhardt, Y. Grin	Thermoelectric properties of chevrel phases M ₂ Mo ₆ S ₈ (M: Cu, Ni) M. Ohta, H. Obara
	The effect of low energy modes on the thermoelectric properties of Zn ₁₇ Mg ₂ J. Custers, M. Ikeda, H. Michor, S. Ohhashi, A.P. Tsai, H. Euchner, M. Mihalkovič, M. de Boissieu	Manufacture and thermoelectric characterisation of SiC-B ₄ C composites V. Lankau, H.-P. Martin, N. Oeschler, A. Michaelis	Effect of additive elements on densification and thermoelectric properties of higher borides RE-B-C(N) D. Berthebaud, T. Nishimura, T. Mori
	Mg-vacancy induced semiconducting properties in Mg ₂ Si _{1-x} Sb _x from electronic structure calculations J. Tobola, S. Kaprzyk, H. Scherrer	Thermoelectric properties of the polycrystalline Bi - Sb solid solutions E. Rogacheva, A. Drozdova, M. Dresselhaus	Thermoelectric properties of stoichiometric and hole-doped CrN C.X. Quintela, F. Rivadulla, J. Rivas
	Point defects and physical properties of clathrates M. Baitinger, U. Aydemir, H. Borrmann, C. Candolfi, W. Carrillo-Cabrera, N.T.K. Lien, N. Öschler, I. Veremchuk, S. Bühler-Paschen, Y. Grin		

Chair: Christophe Goupil PM-67 - 76			
Oxides	Improvement of thermoelectrical properties of Bi ₂ Ca ₂ Co _{1.7} O _x misfit compounds synthesized by solution routes A. Sotelo, S. Rasekh, M.A. Madre, S. Marinel, E. Guilmeau, J.C. Diez	Improved thermoelectrical properties of Bi-Sr-Co-O misfit compounds by Pb for Bi substitution and laser texturing J.C. Diez, S. Rashekh, M.A. Madre, E. Guilmeau, S. Marinel, A. Sotelo	Effects of pulsed laser deposition rate on the microstructure of Ca ₃ Co ₄ O ₉ thin films T. Sun, H.H. Hng, Q.Y. Yan, J.L. Wang, J. Ma
	Synthesis, crystal structure and thermoelectric properties of Yb-substituted Ca _{1-x} Yb _x MnO ₃ oxides Q.M. Lu, B.X. Zhang, J.X. Zhang	Local structure of [(Ca,Bi) ₂ CoO ₃] _{0.62} CoO ₂ by HREM observation K. Yubuta, X. Huang, Y. Miyazaki, T. Kajitani	Precise control of Na concentration in the layered cobaltate γ-Na _x CoO ₂ D. Igarashi, Y. Miyazaki, K. Yubuta, T. Kajitani
	Modifications of the Bi ₂ Ca ₂ Co ₂ O _{8-□} thermoelectric properties by controlling the microstructure H. Muquera, B. Rivas Murias, B. Vertruyen, P. Vanderbemden	Growth and transport properties of thin cobaltate and manganite films for thermoelectric applications S. Wiedigen, T. Kramer, J. Hoffmann, C. Jooss	Thermoelectric properties of mechanically alloyed La _{1-x} Sr _x MnO ₃ D. Salazar, D. Arias, O.J. Durá, M.A. López de la Torre
	Thermoelectric properties of nano-grained ZnO Y. Kinemuchi, M. Mikami, K. Kobayashi, K. Watari		

Chair: Martin Köhne PM-77 - 87			
Silicides	Thermoelectric properties of n-type Mg ₂ Sn _x Si _{1-x} X. Zhang	Method of the study of small crystals of anisotropic thermoelectrics A.A. Andreev, M.I. Fedorov, Y.V. Ivanov, V.S. Petrova, V.K. Zaitsev	Thermoelectric properties of p-type Mg _{1.98} Si _{0.25} Sn _{0.75} with Li and Ag double-doping Y. Isoda, S. Tada, T. Nagai, H. Fujii, Y. Shinohara
	Preparation and thermoelectric properties of (Mn _{1-x} Fe _x)Si _y (γ~1.7) solid solution Y. Saito, Y. Miyazaki, K. Hayashi, K. Yubuta, T. Kajitani	Production of single crystals of 3d-transition metal silicides by high temperature solution method F.Y. Solomkin, V.K. Zaitsev, M.I. Fedorov, N.F. Kartenko, A.S. Kolosova	Thermoelectric properties of low thermal conductive compounds: Zr ₃ Mn ₄ Si ₆ and TiMnSi ₂ R.O. Suzuki, H. Kozasa
	P-type impurity-doping and thermoelectric property of melt grown Mg ₂ Sn single crystal H. Udono, K. Kushida, H. Koguchi, M. Midonoya	Synthesis of Mg ₂ Si by using a Na flux and NaSi T. Yamada, Y. Oishi, H. Morito, H. Yamane	Thermoelectric characteristics of commercialized Mg ₂ Si source doped with Al, Bi and Ag A. Matsumoto, T. Iida, Y. Honda, T. Nemoto, T. Nakajima, Y. Takanashi
	Thermoelectric properties of the solid solutions Mg ₂ Si _{1-x} Gex doped with Bi and Ga H. Ihou-Mouko, C. Mercier, K. Mars, G. Pont, J. Tobola, H. Scherrer	Thermoelectric properties of Al-doped Mg ₂ Si compounds prepared by liquid-solid phase reaction and pulse discharge sintering T. Itoh, M. Matsuno	

Chair: Heiner Linke PM-88 - 93			
Theory	The symmetry analysis of thermoelectric energy converters with inhomogeneous legs M.A. Korzhuev	An atomistic study of the role of point defects for the thermoelectric properties of Bi ₂ Te ₃ A. Hashibon, C. Elsässer	Isotopic superlattices for perfect phonon reflection G. Bastian, A. Vogelsang
	Simulation of thermoelectric properties of bulk SrTiO ₃ with 2DEG grain boundaries R.-Z. Zhang, J.-C. Li, C.-L. Wang, K. Koumoto	A study of phonon transport in nanostructured semiconductors in use of a fast Monte-Carlo solver M.-J. Huang, T.-C. Tsai, L.-C. Liu	<i>Ab initio</i> method to calculate the thermopower across nanostructured interfaces M. Bachmann, C. Heiliger

Chair: Rama Venkatasubramanian PM-95 - 106			
Thin Film Materials	Synthesis and characterization of epitaxial and nanostructured BaSrTiO ₃ thin film on SrTiO ₃ (100) via RF magnetron sputtering for thermoelectric applications S. Battiston, S. Boldrini, M. Fabrizio, S. Fiameni, R. Gerbasi, F. Montagner	Thermoelectric properties of Bi ₂ Te ₃ based thin films with fine grains fabricated by pulsed laser deposition H. Obara, S. Higomo, M. Ohta, A. Yamamoto, K. Ueno	Effect of lanthanum on the thermoelectric properties of n-type Bi-Te-Se thin film prepared by electrodeposition J. Yiteng, W. Wei, Z. Yanbing, Q. Yanling, G. Jianping
	Electrodeposition of Bi _x Sb _{2-x} Te _y thermoelectric thin film from DMSO organic solution L. Feihui, W. Wei, J. Yiteng, G. Jianping	Electrodeposition of binary and ternary Bi-Sb-Te alloys as thermoelectric films using as electrolyte, choline chloride - urea mixtures F. Golgovici, A. Cojocar, M. Nedelcu, T. Visan	Seebeck coefficient of ultrathin SOI films H. Ikeda, F. Salleh, K. Asai
	Thermoelectric coefficient of n-doped pyrite thin films: the effect of palladium I.J. Ferrer, P. Díaz-Chao, J.R. Ares, C. Sánchez	The role of Au on thermoelectric properties of amorphous Ge/Au and Si/Au thin films H. Takiguchi, Z. Yoshikawa, H. Miyazaki, Y. Okamoto, J. Morimoto	Structural and electrical properties of pulsed laser deposited bismuth telluride based alloys S.S. Sedky, A. Abdel Aziz, J. El Rifai, M. Youmn, T. Van der Donck, J.-P. Celis, V. Leonov
	Thermoelectric power as a tool to investigate the H-desorption process of metal hydrides films J.R. Ares, I. Guerrero, P. Díaz-Chao, F. Leardini, D. Koon, I.J. Ferrer, J.F. Fernández, C. Sánchez	Carrier properties as a function of annealing in [(PbSe) _{1.00}] _m [MoSe ₂] _n misfit layered compounds C. Heideman, R. Rostek, D. Johnson	

Poster Session 2, Tuesday, July 28

Chair: Lon Bell PT-107, 214			
Automotive	On the concept of thermocouple sets in exhaust pipe thermoelectric generators M.A. Korzhuev, I.V. Katin	Development of MPPT power conditioner using impedance matching method and application to battery systems H. Nagayoshi, H. Maiwa, T. Kajikawa	

Chair: Ctirad Uher PT-108 - 119			
Clathrates	Localization of vibration mode in silicon type II clathrate J.C. Li, C.L. Wang, L. Mei	Sr ₈ Ga ₁₆ Ge ₃₀ - an inelastic neutron scattering study on a single crystal A. Möchel, W. Schweika, K. Schmalzl, B.C. Sales, R.P. Hermann	Synthesis, structure and physical properties of Ba ₈ Ni _{4-x} Ge _{42+x-y} □ _y clathrates L.T.K. Nguyen, U. Aydemir, M. Baitinger, J. Custers, R. Höfler, F. Ritter, W. Assmus, J. Grin, S. Paschen
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