Program at a glance

ECT2011 Program

	DAY 1 : Sept. 28		DAY 2 : Sept. 29		DAY 3 : Sept. 30	
	Central Hall	Room A	Central Hall	Room A	Central Hall	Room A
9:00			B Chalcogenides	A Theory	B Clathrates	D TE modules
9:30						
10:00						
10:30			Coffee Break		Coffee Break	
11:00	Registration		INV 3	A Theory	INV 9	E Industrial Appl.
11:30			B Chalcogenides		B Antimonides	
12:00						
12:30				INV 4		INV 12
13:00			Light Lunch		Light Lunch	
13:30						
14:00	welcome		INV 5	A Theory	INV 11	B Oxides
14:30	INV 1		B Scutterudides		B Novel Materials	
15:00	INV 2					
15:30	Coffee Break			INV 6		
16:00	B Chalcogenides	C Measurements	Coffee Break		Coffee Break	
16:30			INV 7	D TE modules	Conf. Closing	
17:00			B Silicides		POSTERS A - C - D - E - B (oxides)	
17:30						
18:00	Conf. Opening			INV 8		
18:30	TE Projects in EU		POSTERS B			
19:00						
19:30	Welcome Buffet Dinner					
20:00						
20:30						
21:00			Conference Banquet			

ECT2011 - DAY 1: Wednesday, September 28, 2011

11:00	Registration	
14:00	Welcome	
Time	**CENTRAL HALL** **chair : K.M. Paraskevopoulos**	
14:30	**INV_1**	**INVITED TALK** **Some issues of history and prospects of thermoelectricity** **L. Anatychuk**
14:45		
15:00	**INV_2**	**INVITED TALK** **High Performance Nanostructured Thermoelectric Materials** **M.G. Kanatzidis**
15:15		
15:30	Coffee Break	

ECT2011 - DAY 1: Wednesday, September 28, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Chalcogenides chair : K. Koumoto, K. Wojciechowski		ROOM A : Measurement & characterization – Microstructure chair : S. Schlecht, A. Weidenkaff	
16:00	B_01	Phase Stability, Structures and Thermoelectric Properties of the $(Bi_2)_m$-$(Bi_2Te_3)_n$ Infinitely Adaptive Series J.W. G. Bos, F. Faucheux, R. A. Downie, A. Marcinkova	C_01	Thermoelectric characteristics of SiGe nanowire arrays as a function of Ge concentration B. Xu, Z. Durrani, K. Fobelets, M. Mironov, C. Li
16:15	B_02	Biomolecule-assisted hydrothermal synthesis and in situ synchrotron x-ray diffraction study of Bi_2Te_3 nanoparticles J-L. Mi, B.B Iversen	C _02	Lattice dynamics on low dimensional chalcogenides D. Bessas, W. Töllner, I. Sergueev, K. Nielsch, R. P. Hermann
16:30	B_03	Thermoelectric properties of Bi_2Te_3, Sb_2Te_3 and Bi_2Se_3 single crystals with magnetic impurities V. Kulbachinskii, V. Kytin, A. Kudryashov, P. Tarasov	C _03	Influence of Hot Uniaxial Pressing process parameters on microstructure and thermoelectric properties of N-type Silicon-Germanium alloy A. Kallel, G. Roux, T. Derycke, C.L. Martin
16:45	B_04	Correlation between Microstructure and thermoelectric Properties in AgPb18SbTe20 (LAST-18) S. Perlt, T. Hoeche, J. Dadda, E. Mueller, P. Bauer Pereira, R. Hermann, R. Brydson	C _04	Microstructure for the Determination of the Seebeck Coefficients of Doped Poly-Si Thin Films D. Moser, A. Steffen, O. Paul
17:00	B_05	Thermoelectric properties of metastable Ge/Sb/Te and Ge/Bi/Te compounds T.Schröder, M.N. Schneider, T.Rosenthal, P.Urban, F.Fahrnbauer, C.Stiewe, C.Gold, E.W.Scheidt, W.Scherer, O.Oeckler	C _05	Anisotropy analysis of thermoelectric properties of $Bi_2Te_{2,9}Se_{0,1}$ prepared by SPS method R. Zybala, K. Wojciechowski
17:15	B_06	Thermoelectric properties of Sn-doped In_4Se_3 M. Jeong, Y. S. Lim, W.-S. Seo, and J.-H. Lee	C _06	Temperature-controlled formation of microstructure of n-type bismuth telluride with SPS method J. Mazur, A. Wrona, K. Bilewska, M. Staszewski, M. Lis
17:30	Conference opening			
18:00-19:00	**TE Projects in EU** K. Nielsch, Overview: German Programs on Nanostructured TE Materials A. Amaldi, the ThermoMag project D. Niarchos, the NexTEC project K. Larsson, the MATCON project			
19:15-21:00	Welcome Buffet Dinner			

ECT2011 - DAY 2: Thursday, September 29, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Chalcogenides chair : A. Cabot, V. Kulbachinskii		ROOM A : Theory chair : Y. Gelbstein, C. Goupil	
9:00	B_07	Near-room temperature power factor of metal sulfide films, J.M. Clamagirand, J.R. Ares, I.J. Ferrer and C. Sánchez	A_01	Thermoelectric Power Factor of Low Dimensional Silicon Nanostructures, N. Neophytou, H. Kosina
9:15	B_08	Thermoelectric Property Characterisations and Structural Analysis of Nanoalloyed Sb_XTe_{1-X} Multilayer Thin Films X. Liu' M. Winkler, J. D. König, U. Schürmann, W. Bensch, H. Böttner, L. Kienle	A_02	Thermopower in different regimes of a single-electron transistor with superconducting island C. Eltschka, J. Siewert
9:30	B_09	Thermoelectric properties of compacted $Bi_{2-X}Sb_XTe_{3-d}$ nanoplatelets with nominal composition of x = 1.5 C.-J. Liu, G.-J. Liu, L.-R. Chen	A_03	Phonon-drag thermopower of extrinsic semiconducting single-wall carbon nanotubes M. Tsaousidou
9:45	B_10	Influence of Processing Parameters on the Thermoelectric Properties of $(Bi_{0.2}Sb_{0.8})_2Te_3$ Sintered by ECAE S. Ceresara, D. Vasilevskiy, C. Fanciulli	A_04	A 3D TCAD simulation of a thermoelectric module connected for thermoelectric power generation, heating and cooling C. Gould, N. Shammas, S. Grainger, I. Taylor, K. Simpson
10:00	B_11	CuAsTe a New Family of Thermoelectric Glasses E.B. Lopes, A. Gonçalves, G. Delaizir, C. Godart	A_05	Strong reduction of the lattice thermal conductivity in superlattices and quantum dot superlattices V. M. Fomin, D. L. Nika, A. I. Cocemasov, C. I. Isacova, P. Chen, A. Rastelli, O. G. Schmidt
10:15	B_12	Mid-temperature thermoelectric performances in PbS and PbTe A.Ishida, Y. Sugiyama, H. Tatsuoka, A. Ito, K. Isobe	A_06	Electron and phonon transmission in diameter-modulated nanowires X. Zianni
10:30	Coffee Break			

ECT2011 - DAY 2: Thursday, September 29, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Chalcogenides -Heusler compounds chair : C. Fanciulli, M.G. Kanatzidis		ROOM A : Theory chair : V. M. Fomin, H. Scherrer	
11:00	**INV_3**	**INVITED TALK** **TiS_2-based Layer Sulfides for Thermoelectrics** **K. Koumoto, C. L. Wan, Y. F. Wang, Y. E. Putri, R.I. Zhang**	A_07	Fast solution of thermoelectric equation for inhomogeneous devices Y. Gerstenmaier, S. Lampenscherf, K. Pham-Gia
11:15			A_08	Charge Kondo theory of PbTe doped with Tl impurities T.A. Costi, V. Zlatic
11:30	B_13	Thermoelectric properties of c-axis aligned Bi-Te materials D. Kim, C. Kim, H. Kim, S. Park	A_09	Tailoring Thermoelectric Properties of Bismuth: Theoretical Investigations A.Popescu, A. Datta, G. Nolas, L. Woods
11:45	B_14	Thermoelectric properties of nanostructured I_2 II IV VI_4 Adamantines M. Ibanez, D. Cadavid, R. Zamani, J. Arbiol, N. Garcia, D. Prades, J. Morante, A. Cabot	A_10	Electronic and Thermoelectric properties of $RuIn_{3-x}A_x$ (A=Sn, Zn) from first principles D. Kasinathan,H. Rosner
12:00	B_15	Thermoelectric Properties of Solution-Processed Chalcogenide Nanocomposites D. Cadavid, M. Ibáñez, V. Fernàndez -Altable, A. Cabot	A_11	Defect and phase stability of solid solutions of Mg_2X with antifluorite structure. An ab-initio study R. Viennois, P. Jund, C. Colinet, J.-C. Tédenac
12:15	B_16	Bismuth-substituted lead-telluride based thermoelectric nanocomposites: solubility-controlled microstructure S. Schlecht, D. Petri, M. Nebe, U. Schürmann, L. Kienle, G. Homm, M. Piechotka, P. J. Klar	A_12	Ab-initio study of zinc antimonide: electronic structure, mechanical properties, lattice dynamics and defect formation energies P. Jund, R. Viennois, X. Tao, J.-C. Tédenac
12:30	B_17	Thermoelectric transport in PbSe quantum wells E. I. Rogacheva, O.N. Nashchekina, S.I. Ol'khovskaya, M. S. Dresselhaus	**INV_4**	**INVITED TALK** **Calculations of electronic structure and transport properties in thermoelectrics including defects** **J. Tobola, B. Wiendlocha, S. Kaprzyk, J. Heremans, H. Scherrer**
12:45	B_18	Half-Heusler superlattices for thermoelectrics T. Jaeger, C. Mix, M. Schwall, B. Balke, S. Populoh, M. H. Aguirre, A. Weidenkaff, C. Felser, G. Jakob		
13:00	Light Lunch			

ECT2011 - DAY 2: Thursday, September 29, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Skutterudites – Silicides chair : H. Böttner, T. Huber		ROOM A : Theory chair : K. Nielsch , J. Tobola	
14:00	**INV_5**	**INVITED TALK** **Rattler-Seeded Nanoinclusion Formation in $In_xCo_4Sb_{12}$ Thermoelectric Skutterudites** **J.Eilertsen, M.Subramanian**	A_13	Coupled theoretical interpretation and experimental investigation of the lattice thermal conductivity of Bi_2Te_3 single crystal A. Jacquot, B. Bayer, M. Winkler, M. Jaegle
14:15			A_14	Electronic structure of Ba and In filled skutterudites: a combination study of XPS and XAS P. Wei, W. Zhao, D. Tang, J. Yu, Z. Peng, Z. XIe, Q. Zhang
14:30	B_19	Improved thermoelectric performances in nano-$Co_{0.97}Pd_{0.03}Sb_3$ E. Alleno, M. Gaborit, B. Lenoir, P. Masschelein, O. Rouleau, M.F. Trichet	A_15	~~Molecular Dynamics Simulation of mechanical properties of Nanoporous Single-Crystal bulk Bi_2Te_3~~ ~~Y.Li, K.Cai, G.Li, L.Liu, P. Zhai~~
14:45	B_20	~~Effect of Fe doping on thermo oxidation behaviors of filled $CoSb_3$ based skutterudite~~ ~~X. Xia, L. Chen, X. Li, X. Huang~~	A_16	Modification of sodium cobaltate for improved thermoelectric properties O. M. Løvvik, S. Casolo, H. Fjeld
15:00	B_21	Benificial effect of Se substitution on the thermoelectric properties in $Co_4Sb_{12-x-y}Te_xSe_y$ skutterudites B. Duan, P. Zhai, L. Liu, Q. Zhang	A_17	Thermoelectric properties of strained silicon: an ab initio study N. F. Hinsche, I. Mertig, and P. Zahn
15:15	B_22	Thermoelectric Enhancement in $CoSb_3$ skutterudite compounds with double and triple filling of In, Yb, Ce S. Ballikaya, N. Uzer, J.R. Salvador, C. Uher	A_18	The influence of Zn vacancy on thermal conductivity in b-Zn_4Sb_3: A molecular dynamics study G. Li, Y. Li, Q. Zhang, L. Liu, P. Zhai
15:30	C_07	Thermal Analysis Methods for the Characterization of Thermoelectric Materials E. Post, S. Knappe	**INV_6**	**INVITED TALK** **Stability and Efficiency Considerations upon Development of IV-VI based Thermoelectric Alloys** **Y. Gelbstein**
15:45	C_08	~~Thermoelectric Characterization of Si/Ge Superlattices~~ ~~M. Trutschel, K. Bertram, B. Fuhrmann, A. Tonkikh,~~ ~~P. Werner, H.S. Leipner~~		
16:00	Coffee Break			

ECT2011 - DAY 2: Thursday, September 29, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Silicides chair : T. Iida, M. Subramanian		ROOM A : Thermoelectric modules – Design & fabrication chair : K. Bartholome, E. Müller	
16:30	**INV_7**	**INVITED TALK** **Thermoelectrics for High Temperatures - The material Contest** **H. Böttner**	D_01	Impact of internal thermal bypasses in high temperature TE-modules D. Tatarinov, S. Laube, G. Bastian, M. Morschel
16:45			D_02	Preparation and characterisation of contacts for high temperature thermoelectric modules J. García-Cañadas, G. Min
17:00	B_23	Thermoelectric properties of magnesium silicide prepared by self-propagating high-temperature synthesis K. Mars, E. Godlewska, M. Mitoraj, K. Zawadzka, R. Mania	D_04	Reduced Energy Consumption by Massive Thermoelectric Waste Heat Recovery in Light Duty Trucks D. Magnetto, G. Vidiella
17:15	B_24	Solid State Synthesis of Magnesium Silicide Based Materials M. Ioannou, K. Chrissafis, Ch. Lioutas, and Th. Kyratsi	D_06	Improving the conversion efficiency of thermoelectric generator through pulse mode operation G. Min
17:30	B_25	Encouraging thermoelectric properties and durability of residual metal-Mg free Mg_2Si prepared by an all molten process Tsutomu Iida, Tatsuya Sakamoto, Keishi Nishio, Yasuo Kogo, Yutaka Taguchi, Shiro Sakuragi,Yoshifumi Takanashi	D_07	Interface contact resistivity and diffusion at high temperature of Al/Sb/Bi_2Te_3 element F. Li, X. Huang, L. Chen, W. Jiang
17:45	B_26	Nanocrystallization of amorphous M-Si thin film composites (M=Cr, Mn) and their thermoelectric properties. S. Novikov, J. Schumann, A. Burkov	D_08	Exergetic analysis of a thermo-generator for automotive application: a dynamical approach of the efficiency O. Glavatskaya, C. Goupil , A. EL-Bakkali, O. Shonda
18:00	B_27	Thermoelectric properties of hot-pressed $CrSi_2$ samples. F.U. Solomkin, A.Yu. Samunin, V.K. Zaitsev, A.T. Burkov, S.V. Novikov, P.P. Konstantinov, E.A. Gurieva	**INV-8**	**INVITED TALK** **Thermoelectrically self - powered sensor systems** **K.Bartholome, M.Bartel, U.Nussel, J.Horzella, R.Binninger, P.Broucke, Böttner**
18:15	B_28	Frequency dependent electron damping in n-type PbSe Th.C. Hasapis, J. Androulakis, E. Hatzikraniotis, K.M. Paraskevopoulos, M.G. Kanatzidis		
18:30 19:45	**Poster Session I : B - Thermoelectric materials** **Chalcogenides , Skutterudites , Silicides & Heusler alloys, Antimonides , Clathrates & Zintl compounds , Novel Materials**			

ECT2011 - DAY 2: Thursday, September 29, 2011: POSTER contributions

POSTER SESSION I : B - Thermoelectric materials: *Chalcogenides*	
~~B_01_P~~	~~Enhancement of thermoelectric properties by high rate magnetron sputtering~~ ~~G. Span, H. Rohrmann, E. Bauer~~
B_02_P	Characterization of thermoelectric materials deposited by electrochemical technique J.-H Lim, I.-J. Yoo, M. Y. Park, D.-C. Lim, Y.-B. Park,K.-H. Lee
B_03_P	Nanostructured $Ag_{0.86}Pb_{22}SbTe_{20}$ Thermoelectric Materials Y. Lin, C. Chen, C. Tsai and Y. Chen
B _04_P	Roles of Twin Structure on Thermoelectric Property in Ag added $Bi_{0.5}Sb_{1.5}Te_3$ compound S. Park, J. Lee, B. Kim, M. Oh, B. Min, H. Lee
B _05_P	Reinvestigation of the Se impurity influence on the structural and thermoelectric properties of $AgSbTe_2$ M. Schmidt, K. Wojciechowski
B _06_P	Highly Crystalline and Perfectly Stoichiometric Bismuth Antimony Telluride Compounds by Pulsed Electrochemical Deposition Technique and Annealing C. Schumacher, K.S Reinsberg, S. Heiderich, L. Akinsinde,O. Brett, M. Jägle, J. Bachmann, K. Nielsch
B _07_P	nano-Bi_2Te_3 for Printing Thermoelectric Generators U. Pelz, M. Dold, S. Fehr, I. Wunder, MB:. Jägle, A. Pfaadt, H. Hillebrecht
B _08_P	Thermoelectric properties of the multilayered Bi_2Te_3 with chalcogenide materials H. Ryu, S. Hyun, J. Song
B _09_P	Features of Growth and Galvanomagnetic Properties of the Bi_2Te_3-based Epitaxial Films Y. Boikov, L. Lukyanova, V. Danilov, M. Volkov, B. Goltsman, V. Kutasov
B_10_P	Synthesis and Characterization of Bulk Nanostructured Bismuth Telluride (Bi_2Te_3). M. Saleemi, S. Li, M. S. Toprak, M. Johnsson, M. Muhammed
B_11_P	Enhancement of Seebeck coefficient and figure of merit in Ga-doped single crystal p-$BiSbTe_3$ V.A. Kulbachinskii, V.G. Kytin, A.A. Kudryashov, P.M. Tarasov
~~B_12_P~~	~~Thermoelectric properties of crystals n- $Bi_2Te_{3-x}Se_x$ <In> (x= 0.15 and 0.3)~~ ~~T. Svechnikova, M. Korzhuev~~
B_13_P	Thermoelectric properties of single crystals p-$(Bi_xSb_{1-x})_{2-y}Sn_yTe_3$ in wide temperature range V.A. Kulbachinskii, V.G. Kytin, A.A. Kudryashov
B _14_P	Comparison of Water Quench (WQ) process with Mechanical Alloying-Hot Pressing (MA-HP) process for Thermoelectric Properties and Structures of $Bi_2Te_{2.85}Se_{0.15}$ M. Fusa, N. Sumida, K. Hasezaki
B _15_P	Self-organization processes in PbTe-Bi_2Te_3 semiconductor solid solutions and thermoelectric properties E.I. Rogacheva, O.S. Vodorez, O.N. Nashchekina, and A.S. Bondarenko
B _16_P	Cathodic deposition of BiTe as thermoelectric films using choline chloride based ionic liquids F. Golgovici,T. Visan
B _17_P	Synthesis and Characterization of nanostructured PbTe Ch. Papageorgiou, J. Giapintzakis and Th. Kyratsi
B _18_P	Thermoelectric properties and nonstoichiometry of GaGeTe

	C. Drasar, V. Kucek, L. Benes, P. Lostak
B _19_P	Thermal, electron transport and far infrared properties of PbTe single crystals doped with Br M. V. Nikolic, K. M. Paraskevopoulos, N. Nikolic, O. S. Aleksic, T. T. Zorba, Th. Kyratsi, A. Menicanin, P. M. Nikolic
B_20_P	Sintering Process in Ball-Milled $K_2Bi_8Se_{13}$ Nano-composites M. Ioannou, E. Hatzikraniotis, Ch. Lioutas, K. Chrissafis, K.M. Paraskevopoulos ,Th. Kyratsi
B _22_P	Influence of electrodeposition additives in the power factor of Bi_2Te_3 Olga Caballero-Calero, Pablo Díaz-Chao, Begoña Abad, Marisol Martín-González
POSTER SESSION I : B - Thermoelectric materials: *Skutterudites*	
B_23_P	Thermoelectric Properties of $Ru_2Ni_2Sb_{12}$ Ternary Skutterudite J. Navrátil, T. Plecháček, Č. Drašar, F. Laufek
B_24_P	Alternative route for the preparation of $CoSb_3$ and Mg_2Si derivatives E. Godlewska, K. Mars, K. Zawadzka
B_25_P	Oxidation resistant coatings for $CoSb_3$ K. Zawadzka, E. Godlewska, K. Mars, M. Nocun
B _26_P	Dependence of microstructure induced with manufacturing parameters and physical properties of compound of skutterudite structure type $Ce_xFeCo_3Sb_{12}$ A. Wrona, J. Mazur, M. Kamińska, K. Bilewska, M. Staszewski, M. Czepelak
B _27_P	Synthesis and thermoelectric properties of the new skutterudites $Yb_xFe_2Ni_2Sb_{12}$ ($0 \le x \le 0.24$) A. Kaltzoglou, P. Vaqueiro, A. V. Powell
POSTER SESSION I : B - Thermoelectric materials: *Silicides & Heusler alloys, Antimonides*	
B _28_P	Structural analysis and thermoelectric properties of XNiSn (X= Ti, Zr, Hf) half-Heusler compounds L. Sagarna, M.H. Aguirre, S. Populoh, A. Weidenkaff
~~B _29_P~~	~~Enhanced Thermoelectric Performance of $(Mn_{1-x}Cr_x)Si_\gamma$ ($\gamma \sim 1.7$) by VEC control~~ ~~Y. Kikuchi, Y. Miyazaki, Y. Saito, K. Hayashi, K. Yubuta, T. Kajitani~~
B _30_P	Formation of electrode materials for sintered n-type Mg_2Si using electroless plating and monobloc sintering methods T. Sakamoto, K. Sugiyama, T. Iida, D. Mori, M. Ogi, K. Nishio, Y. Kogo, Y. Takanashi
B _31_P	Mechanical properties of doped n-type Mg_2Si prepared by the plasma activated sintering method Y. Kogo, T. Iida, T. Sakamoto, K. Nishio and Y. Takanashi
~~B _32_P~~	~~Crystal orientation and thermoelectric properties of $MnSi_\gamma$ films~~ ~~K. Takeda, K. Hayashi, Y. Miyazaki and T. Kajitani~~
B_33_P	Solid-State Synthesis and Thermoelectric Properties of n-type Mg_2Si I.Kim, S. You, S. Choi, W. Seo, S. Kim
B_34_P	Thermoelectric characterization of n-type Mg_2Si doped with transition metal elements T. Mito , T. Iida, T. Sakamoto, R. Miyahara, K. Nishio, Y. Taguchi, S. Sakuragi, Y. Kogo and Y. Takanashi
B_35_P	Development of the method for the preparation of Mg_2Si by SPS technique P. Nieroda, R. Zybala, K. Wojciechowski
B_36_P	Fabrication of large size sintered pellets of n-type Mg_2Si using a plasma activated sintering method Y. Hayatsu , T. Iida, T. Sakamoto, S. Kurosaki, K. Nishio, Y. Kogo, Y. Takanashi
B _37_P	Synthesis and characterization of Bi-doped Mg_2Si thermoelectric materials

	S. Fiameni, S. Boldrini, S. Battiston, F. Agresti, A. Famengo, M. Fabrizio, S. Barison.
B _38_P	Nanostructured multilayered thin film barriers for Mg_2Si thermoelectric materials S. Battiston, S. Boldrini, S. Fiameni, F. Agresti, A. Famengo, M. Fabrizio, S. Barison
B _39_P	Thermoelectric properties of Mg_2Si-based compounds synthesized partially using magnesium alloy T. Itoh, K. Hagio
B _40_P	Formation of Mg_2Si thick films on Si substrates using pack cementation process D. Stathokostopoulos, D. Chaliampalias, E. Pavlidou, E. Hatzikraniotis, G. Stergioudis, K.M. Paraskevopoulos, G. Vourlias
B _42_P	Influence of Film Thickness and Annealing Temperature in Growth of Mg_2Si Thin Films Th.C. Hasapis, E. Hatzikraniotis, E.C. Stefanaki, G. Vourlias, A. Siozios,P. Patsalas and K.M. Paraskevopoulos
B _43_P	Spark plasma sintered Half-Heusler compounds with high Figure-of-Merit M. Schwall, B. Balke, M. Köhne, Y. Gelbstein and C. Felser
POSTER SESSION I : B - Thermoelectric materials: C*lathrates & Zintl compounds , Novel Materials*	
B _44_P	Comparison of transport properties of type I germanium clathrates $A_8Ga_{16-x}Ge_{30+x}$ (A- K, Ba) with band structure J. Leszczynski, A. Kolezynski , K. T. Wojciechowski
B_45_P	N type thermoelectric recycled carbon fibre sheet with electrochemically deposited Bi_2Te_3 E. Pang, S. Pickering, A. Chan, K. Wong
~~B_46_P~~	~~Thermally induced decomposition of acrylic acid grafted luminescent silicon quantum dots in ultrahigh vacuum~~ ~~Y. Chao, Q. Wang, P. Coxon, A. Walton~~
B_47_P	High Figures of Merit in Degenerate Semiconductors. Energy Filtering by Grain Boundaries in Heavily Doped Polycrystalline Silicon D. Narducci, E. Selezneva, G. Cerofolini, S. Frabboni, G. Ottaviani
B_48_P	Preparation and thermoelectric properties of B_4C-Si-B composites B. Feng, H. P. Martin, R. Hempel-Weber, A. Michaelis
B_49_P	Switching effect in transverse thermopower in single-crystal Bi microwires L. A. Konopko, T. E. Huber, A. A. Nikolaeva
~~B_50_P~~	~~Thermoelectric figure-of-merit enhancement in Te-coated Bi composites~~ ~~T. Lan, Y. Chen, S. Shyu,Y. Chen~~
B_51_P	Prospects of nanostructures $Bi_{1-x}Sb_x$ for thermoelectricity A.Nikolaeva, L. Konopko, T. Huber, P. Bodiul, I. Popov
B_52_P	Enhancement of thermopower anisotropy in Bi and Bi-Sn wires at elastic deformation in magnetic field A.Nikolaeva, L.Konopko, T.Huber, A.Tsurkan, L.Konopko, O.Botnari
~~B_53_P~~	~~Layered materials for thermoelectricity~~ ~~Antoine Maignan, Franck Gascoin , Sylvie Hébert and Emmanuel Guilmeau~~
B_54_P	Thermal diffusivity measurement system applied to polymers B. Abad, P. Díaz-Chao, A. Almarza, D. Amantia, S. Vázquez-Campos, F. Briones, M. Martín González

ECT2011 - DAY 3: Friday, September 30, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Clathrates-silicides-novel materials chair : F. Gascoin, Y.B Kogo		ROOM A : TE modules-Design & fabrication System & Industrial applications – automotive applications chair : L. Anatychuk, D. Narducci	
9:00	B_29	Growth, electrical and thermal properties of doped mono and polycrystalline SiGe-based Quantum Dot SuperLattices G. Savelli, D. Hauser, H. Michel, J. Simon	D_09	Performance characterization of high-efficiency segmented $Bi_2Te_3/CoSb_3$ unicouples for thermoelectric generators K. Wojciechowski, R. Zybala, J. Leszczynski, P. Nieroda, M. Schmidt, R. Gajerski, E. Aleksandrova, D. Susa
9:15	B_30	Seebeck Coefficients in Silicon Nanowire Arrays E. Krali,C. Li, K. Fobelets, Z. Durrani	D_10	Effective power factor and thermoelectric figure of merit K. Zabrocki, W. Seifert, E. Müller
9:30	B_32	Formation and homogeneity range of the clathrates type-I in the ternary systems (Sr, Ba)-(Ag, Au)-(Si, Ge) I. Zeiringer, N. Melnychenko-Koblyuk, A. Grytsiv, E. Bauer, G. Giester, P. Rogl	E_01	Impact of novel thermoelectric materials on automotive applications M. Brignone, A. Ziggiotti
9:45	B_33	Composition Dependence of Thermoelectric Properties in Polycrystalline Type-I $Ba_8Ga_xSi_{46-x}$ (Nominal x=14-18) Clathrates Prepared by Combining Arc Melting and Spark Plasma Sintering Methods H.Yamada, T.Nakabayashi, M.Hokazono, R.Shirataki, H.Anno	E_02	CFD Modeling of Thermoelectric Generators in EGR-coolers O. Högblom, R. Andersson
10:00	B_34	Evaluation of the thermoelectric potential in the clathrate-I $Ba_8(Zn,Ni)_xGe_{46-x}$ M. Falmbigl, N. Nasir, A. Grytsiv, P. Rogl, S. Seichter, E. Bauer	E_03	Thermoelectric Exhaust-Gas Energy Recovery: An Integrated Approach A.V. Powell, A.Kaltzoglou, P. Vaqueiro, G. Min, J. Garcia-Cañadas, R.K. Stobart, J. Li, G. Dong, A. Wijewardane
10:15	B_35	Zn Migration in Spark Plasma Sintering of Zn_4Sb_3 H. Yin, M. Christensen, N. Lock, K. Kato, M. Takata, B. Iversen	E_04	Self-cooling on power MOSFET using n-type Si wafer H. Nakatsugawa, T. Sato, Y. Okamoto, T. Kawahara, S. Yamaguchi
10:30	Coffee Break			

ECT2011 - DAY 3: Friday, September 30, 2011: ORAL contributions

Time	CENTRAL HALL : TE materials – Antimonides chair : C-J. Liu, G.Nolas		ROOM A : System & Industrial applications – cooling, generator applications chair : M. Codecasa, J.W. Fairbanks	
11:00	**INV_9**	**INVITED TALK** **Antimony based thermoelectric materials** **Bo B. Iversen**	E_05	Prospects for Improvement in LED Performance Using Thermoelectrics V. Semenyuk, R. Dekhtiaruk
11:15			E_08	A 1 kWel thermoelectric stack for geothermal power generation — Modeling and geometrical optimization Cl. Suter, A. Steinfeld
11:30	B_36	Crystal structure and XPS analysis of In-doped β-Zn_4Sb_3 D. Tang, W. Zhao, S. Cheng, Q. Zhang	E_09	Study of a thermoelectric system equipped with a maximum power point tracker for distributed electric generation C. Favarel, D. Champier, J.P. Bédécarrats, T. Kousksou, F. Strub
11:45	B_37	High electron mobility in Cu-doped ZnSb containing particles of Zn_3P_2 K. Valset, P. Böttger, J. Taftø, T. Finstad	E_10	Thermoelectric Generating System attached to a Carburizing Furnace at Komatsu Ltd., Awazu Plant T. Kajihara, K. Makino, S. Fujimoto, H. Kaibe, H. Hachiuma
12:00	B_38	Comparison of the structural and thermoelectric properties of ball-milled and co-reduced $Bi_{1-x}Sb_x$ Nanoalloys B. Landschreiber, E. Güneş, G. Homm, C. Will, A. Sesselmann, S. Schlecht, P. J. Klar, E. Müller	E_11	Thermoelectric Generator Hidden in a Shirt with a Fabric Radiator R.J.M Vulers, C. Van Hoof, V. Leonov
12:15	B_40	Anomalous Seeding Effect of Vanadium Diboride on the Thermoelectric Properties of Higher Borides A.Prytuliak, T. Mori	E_12	~~Architectural innovation foresight of thermoelectric generator charger integrated portable power supply for portable consumer electronic device in metropolitan market: the case study of Thailand~~ ~~S. Maolikul, S. Kiatgamolchai, T. Chavarnakul~~
12:30	B_41	Classical and quantum size effects in Bi-Sb thin films E. Rogacheva, D. Orlova, M. Dresselhaus	**INV_12**	**INVITED TALK** **Automotive Thermoelectric Generators and Air Conditioner/Heaters** **J.W. Fairbanks**
12:45	B_42	Thermoelectric properties of nanostructured Bi-Sb-Te doped with C_{60} V. Kulbachinskii, V. Kytin, M. Popov, S. Buga, V. Blank, P. Stepanov		
12:00	Light Lunch			

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Time	CENTRAL HALL : TE materials – novel materials chair : K. Hasezaki , Bo B. Iversen		ROOM A : System & Industrial applications – Oxides chair : A. Maignan, V. Semenyuk	
14:00	INV_11	**INVITED TALK** **A Bottom-Up Approach for Nanostructured Thermoelectrics** **G.Nolas**	E_13	Design and Development of a TEG Cogenerator Device Integrated in Self Standing Gas Heaters M. Codecasa, C. Fanciulli, R. Gaddi, F. Passaretti
14:15			E_14	Electric Power Output Optimization in Seebeck Generators: Beyond High ZT D. Narducci
14:30	B_43	Thermoelectric properties of BiTeBr and BiTeI Single crystals and composites of BiTeI with BiI_3, CuI and superstochiometric Bi V. Kulbachinskii, V. Kytin, A. Kudryashov, A. Shevelkov	B_50	Advanced High Temperature Thermoelectric Materials for Space and Terrestrial Power Generation Applications J.-P. Fleurial , S. K. Bux
14:45	B_44	Thermoelectric Performance of PEDOT:PSS/SWCNT Nanocomposite S.G. Park,K. Woochul	B_52	Synthesis, characterization and thermoelectric properties of fine grains Gd-doped ZnO Q.N. Pham, F. Brisset, C. Byl, D. Bérardan and N. Dragoë
15:00	B_45	Thermoelectric properties of ScN thin films S. Kerdsongpanya, N. Van Nong, N. Pryds, A. Žukauskaitė, J. Lu, J. Jensen, J. Birch, L.Hultman, G. Wingqvist, P. Eklund	B_53	Controlling Microstructure of Metal Oxides for Efficient Thermoelectric Materials for Energy Harvesting M. Ohtaki, G. Yamamoto, Y. Iwano
15:15	B_46	Preparation routes and thermoelectric properties of $FeGa_3$ M. Wagner, R. Cardoso-Gil, Yu. Grin	B_54	Chemical peculiarities of layered sodium cobaltates B. Jancar, D. Vengust, A. Sestan
15:30	B_47	Surface state effects on the thermopower of 30- to 200-nm diameter bismuth nanowires T. E. Huber, A. Adeyeye, A. Nikolaeva, L. Konopko, R.C. Johnson, M. J. Graf	B_55	Influence of processing conditions on the thermoelectric properties of $La_{1-x}Sr_xCoO_3$ (x=0, 0.05) C. Papageorgiou, G. Athanasopoulos, Th. Kyratsi, J. Giapintzakis
15:45	B_48	Synthesis and Thermoelectric Properties of layered CdI_2 type compounds R. Nunna, Y. Breard, E. Guilmeau, F. Gascoin	B_56	The thermoelectric $Ca_3Co_4O_9$ compound – synthesis and characteristics M. Presečnik, S. Bernik
16:00	B_49	Semiconducting Glasses: A New Class of Thermoelectric Materials? A.P. Gonçalves, E.B. Lopes, G. Delaizir, C. Godart	B_58	Growth and characterization of high-quality thermoelectric $Na_{0.65}CoO_2$ thin films P. Brinks, H. Heijmerikx, R. Hendriks, G. Rijnders, M. Huijben
16:15	Coffee Break			
16:30 17:00	Conference Closing			
17:00 18:30	Poster Session II : **A – Theory, B - Thermoelectric Materials: o*xides* , C – Measurement & Characterization** **C – Measurement & Characterization, D – Thermoelectric Modules, E – System & Industrial Applications**			

ECT2011 - DAY 3: Friday, September 30, 2011: POSTER contributions

POSTER SESSION II : A - Theory	
A_01_P	Optimisation of the efficiency of nanowire array based thermoelectric generators T. Mylvaganam, K. Fobelets, I. Jaimoukha
A_02_P	Influence of hole- and phonon-nanoparticle scattering on the transport coefficients in $Bi_XSb_{1-X}Te_3$ bulk nanostructures L.P. Bulat, V.B. Osvenskii, Yu.N. Parkhomenko, D.A. Pshenay-Severin
A_03_P	Enhanced thermoelectric efficiency of a weakly coupled quantum dot M. Tsaousidou, G. Triberis
A_04_P	On the Semimetal-Semiconductor Transition in Thin Bi Films A.V. Meriuts, E.I. Rogacheva, and M.S. Dresselhaus
~~A_05_P~~	~~Quadrupole Method Applied to a Thermoelectric Leg~~ ~~M. Lazard, C. Goupil, G. Fraisse, H. Scherrer~~
A_06_P	Spin-dependent thermoelectric effect in magnetic tunnel junctions L. Chaput , W. Lin , M. Hehn, B. Negulescu, S. Andrieu, F. Montaigne and S. Mangin
A_07_P	KKR-CPA study of Mg_2X (X= Si, Ge, Sn) thermoelectric materials P. Zwolenski, J. Tobola, S. Kaprzyk
A_08_P	Phonon self energy in transition metals L. Chaput,A. Togo I. Tanaka G. Hug
A_09_P	Transport properties calculated from complex Fermi surface with Boltzmann approach on the example of $TiFe_{1-X}Ni_XSb$ half-Heusler compound. K. Kutorasinski, J. Tobola, S. Kaprzyk
A_10_P	Effect of temperature gradient on high-frequency dielectric permittivity in quantum-well superlattice structures Roland H. Tarkhanyan and Dimitris G. Niarchos
A_11_P	Analytical and Experimental Studies on an Innovative Composite Approach for Enhanced Thermoelectric Performance John Li, Matthew Barry, Yunfei Ma, Aiping Wu, Minking K. Chyu
POSTER SESSION II : B - Thermoelectric Materials: O*xides*	
B_55_P	Thermoelectric properties of SnO_2-based ceramics doped with Nd, Hf or Bi S. Yanagiya , N.V. Nong , M. Sonne, N. Pryds
B_56_P	In-situ PXRD Investigation of the hydrothermal synthesis of ZnO and presentation of OTE power project E.D. Bøjesen, M. Søndergaard, M. Christensen, B.B. Iversen
B_57_P	Spark Plasma Sintering (SPS) synthesis and thermoelectric properties of Ti_2O_3 I.Veremchuk, C. Candolfi, M. Baitinger, Y. Grin
B_58_P	Thermoelectric power studies of misfit-layered NiO-added $Ca_3Co_4O_9$ oxides K. Park, S.W. Nam
B_59_P	Electrical conductivity and thermoelectric power of $Na(Co_{1-x}Ni_x)_2O_4$ thermoelectric oxides K. Park, J. Choi, G. Lee
~~B_60_P~~	~~Microstructure and thermoelectric properties of Sm_2O_3 added $CaMnO_3$~~ ~~K. Park, J. Kim~~
B_61_P	$Zn_{1-x}Dy_xO$ ($0 \le x \le 0.04$) thermoelectric oxides for power generation K. Park, H. K. Hwang

B_62_P	Spark plasma sintering of Al-doped ZnO nanoparticles and its thermoelectric properties W. Nam, Y. Lim, W. Seo, J. Lee
B_63_P	Titanium suboxides – obtained from an organo-metallic precursor - as thermoelectric S. Conze, I. Veremchuk, W. Schnelle, A. Michaelis, Y. Grin, I. Kinski
B_64_P	Optimization of Thermoelectric Efficiency of $LaCoO_3$ by Double Substitution with Nickel and Iron V. Vulchev, L. Vassilev, S. Ivanova, M. Khristov, E. Zhecheva and R. Stoyanova
~~B_65_P~~	~~Transition-metal-based perovskite oxides for enhanced thermopower~~ ~~K. Wojciechowski, K Świerczek, S. Kolesnik, B. Dabrowski~~
B_66_P	Thermoelectric properties and microstructure of modified novel complex cobalt oxides $Sr_3RECo_4O_{10+5}$ (RE = Y and Gd) N. V.Nong, N. Pryds
B_67_P	Experiments with semiconducting p-type misfit compound H. Heinonen, J. Tervo
B_68_P	Nb-doped $SrTiO_3$ glass-ceramics as high-temperature stable n-type oxide thermoelectric J. Lingner, M. Letz, G. Jakob
B_69_P	Influence of electrodeposition parameters in the thermoelectric properties of ZnO films C. V. Manzano, O. Caballero-Calero, P. Díaz-Chao, M. S. Martín-González
~~B_57_O~~	~~Modulated crystal structure of layered cobaltate α'-NaxCoO2 (x~ 0.75)~~ ~~Y. Miyazaki, N. Igawa, K. Yubuta~~
POSTER SESSION II : C – Measurement & Characterization - microstructure	
C_01_P	Seebeck coefficient and electrical conduction changes of Si nanowire arrays filled with polymers S. Saouros, C. Li, Z. Durrani, K. Fobelets
C_02_P	The effect of substrate on the thermoelectric properties of rf sputtered Bi_2Te_3 film H. Kim, H. You, W. Choi, C. Park, Y. Kim, S. Kim, J. Kim
C_03_P	The thermoelectric properties of Bi_2Te_3 and In_2O_3 nanowires T. Hsiung, P. Lee, H. Chen, Y. Chen
C_04_P	Correlation of local and global thermoelectric properties in laterally structured thermoelectric materials G. Homm, F. Gather, A. Kronenberger, P. Ziolkowski, E. Müller, B. K. Meyer, P.J. Klar
C_05_P	Comparison of different methods for measuring thermal conductivities D. Hartung, F. Gather, A. Kronenberger, P. Klar
C_06_P	New measuring techniques for the investigation of thermoelectric properties of nanowires M.C. Schmitt, H. Reith, D. Huzel, F. Völklein
C_07_P	Cross-plane Seebeck coefficient measurement of highly crystalline $CuFeSe_2$ thin film P. C. Lee, M. N. Ou, J. Y. Luo, M. K. Wu, Y. Y. Chen
POSTER SESSION II : C – Measurement & Characterization : *properties*	
C_08_P	Metrology for Energy Harvesting F. Edler, E. Lenz
C_09_P	Modified Harman's Method L. Anatychuk, V. Lysko
~~C_10_P~~	~~Study Harman response of different parts of one-cascade and multi-cascade modules along the thermoelectric contour~~

	~~M. Korzhuev~~
C_11_P	Construction of Seebeck-coefficient measurement by Kelvin-probe force microscopy H. Ikeda, K. Miwa, F. Salleh
C_12_P	Influence of the Thermal Aging Phenomena on the Al-Substituted ZnO Thermoelectric Properties N. Schäuble, R. Dujardin, B. E. Süess, A. Weidenkaff, M. H. Aguirre
C_13_P	Thermoelectric Standardisation – Reference Materials and Characterisation methods P. Ziolkowski, P. Blaschkewitz, G. Karpinski, C. Stiewe, E. Müller
C_14_P	Simultaneous Measurement of Thermoelectric Properties with the new IPM ZT-Meter A. Jacquot, M. Jaegle, H.-F. Pernau, J. König, K.Tarantik, K. Bartholomé, H. Böttner
~~C_15_P~~	~~Investigation of the thermoelectric property of polyaniline nanorods doped with inorganic dopant~~ ~~Krishanu Chatterjee, Dipali Banerjeea, Kajari Kargupta, Saibal Ganguly~~
POSTER SESSION II : D – Thermoelectric Modules : t*hin film devices, design & fabriacation, device performance*	
~~D_01_P~~	~~Micro thermoelectric devices using Bi-Te and Sb-Te thin films deposited by co-evaporating~~ ~~Seoungwoo Han, Kwang Eun Lee, Min-Su, Kim, Jung Yup Kim~~
D _02_P	Design and construction of a thermoelectric module based on natural pyrite J.M. Clamagirand, J.R. Ares, I.J. Ferrer, C. Sánchez
D _03_P	A new method to improve the efficiency of the heat flow path of a micro thermoelectric generator Zheng Yuan, Katir Ziouche, Zahia Bougrioua, Pascale Godts, Tuami Lasri, Didier Leclercq
D _04_P	Influence of heat exchange system on thermoelectric equipment efficiency R. Cherkez, A. Prybyla
D _05_P	Energy Possibilities of Permeable Generator Thermoelements Based on Segmented Legs R.G. Cherkez
D _06_P	Fabrication of thermoelectric modules with Mg2Si and SrRuO3 by the spark plasma sintering method. Keishi Nishio, Yukie Sawada, Koya Arai, Tatsuya Sakamoto, Yasuo Kogo ,Tsutomu Iida
POSTER SESSION II : E – System & Industrial Applications	
~~E_01_P~~	~~Automobile Exhaust Pipe Thermoelectric Generator (TEG) - Saving or Waste of Fuel the Car~~ ~~M. Korzhuev, I. Katin~~
E _02_P	Experimental study of waste heat recovery in off-road vehicles K. Wojciechowski, R. Zybala, J. Leszczynski, P. Nieroda, M. Schmidt, J. Merkisz, P. Lijewski, P. Fuc
E _03_P	Thermoelectric equipment for treatment of radiculitis and spinal massage L. Anatychuk, R. Kobylyansky
E _04_P	Thermoelectric converters for etalons of alternating current L. Anatychuk, D. Taschuk
E _05_P	Experimenting with Hot Isostatically Pressed (HIP) Nano Grained Bismuth-Telluride-based alloys J. Virta, J. Tervo
E _06_P	Efficiency of thermoelectric energy recuperators of internal combustion engines exhaust gas L. Anatychuk, R. Kuz', Yu. Rozver
~~E_06_O~~	~~Using loop heat pipe to increase the power generation efficiency of thermoelectric generator~~ ~~B.J. Huang, P.E. Yang, R.J. Tsai, Y.H. Liann, S.K. Wang, C.J.Hsu~~