

## 10th INTERNATIONAL CONFERENCE ON SOLAR THERMAL ENERGY



12<sup>th</sup> – 14<sup>th</sup> September 2012 forumKloster Gleisdorf, Austria



AEE INTEC





PROGRAMME

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<b>WE</b>	DNESDAY 12 <sup>th</sup> Sept. 2012
10:00	REGISTRATION
10:30	Welcome and Opening Doris Bures (invited) Federal Minister for Transport, Innovation and Technology, Vienna, AT
10:45	EC Support to Renewables for Heating and Cooling, including the Solar Thermal Sector  Josè Riesgo, European Commission, DG ENERGY, Brussels, BE
11:00	The IEA Solar Heating and Cooling Roadmap Paolo Frankl, International Energy Agency, Paris, FR
11:20	Transforming Austria: Solar Technologies — Research2Market Theresia Vogel, Austrian Climate and Energy Fund, Vienna, AT
11:40	COFFEE BREAK
TOPIC 1	Large-scale Solar Thermal Systems I  — District Heating / International
12:10	Solar Thermal goes Megawatt – New Developments in Large- scale Solar District Heating Jan-Erik Nielsen, PlanEnergi, Hvalsoe, DK
12:35	The Drake Landing Solar Community - 90% Solar Fraction are Possible Doug McClenahan, CANMET - Natural Resources Canada, Ottawa, CA
13:00	LUNCH BREAK and VISITING poster and technical exhibition
TOPIC 2	Large-scale Solar Thermal Systems II – District Heating and Process Heat / International
14:15	25 MW <sup>th</sup> – The worldwide biggest Solar Thermal System in Riyadh – System Concept and Operational Experiences Ennis Rimawi, Millennium Energy Industries, Amman, JO
14:30	High Solar Fractions with Pit Storages – Europe's largest Solar Thermal System Leo Holm, Marstal Fjernvarme, Marstal, DK
14:45	System Concepts and Operational Experiences with Large- scale Solar Thermal Systems supporting Industrial Processes in Asia
15:00	Carsten Aschoff, Aschoff Solar, Petersaurach, DE  Process Heat for Gatorade - A Success Story in four Steps Christian Holter, S.O.L.I.D. GmbH, Graz, AT
15:15	COFFEE BREAK
TOPIC 3	Large-scale Solar Thermal Systems – Austria
15:45	Austrian Large-scale Solar Thermal Systems – Results of the Support Program and of the Scientific Evaluation Gernot Wörther, Austrian Climate and Energy Fund, Vienna, AT and Christian Fink, AEE INTEC, Gleisdorf, AT
16:10	CPC-Evacuated Tube Collector System - Solar Supported Galvanic Process at the Company Blum Rolf Meissner, Ritter XL Solar, Karlsbad, DE
16:30	Green Solar Cities - Salzburg Lehen: 2150 m² Collector Area and Heat-Pump System Norbert Dorfinger, Salzburg AG, AT

16:50	Potential for Solar Thermal Systems in Combination with Biomass District Heating Johann Breidler, AEE INTEC, Gleisdorf, AT
17:05	Hydraulic Design of Large-scale Solar Thermal Systems Philip Ohnewein, AEE INTEC, Gleisdorf, AT
17:20	Solar Thermal Branch Concepts for the Food Industry presented via selected Feasibility Studies  Jürgen Fluch, AEE INTEC, Gleisdorf, AT
17:40 – 18:30 POSTER-PRESENTATION	
18:35	HAPPY HOUR
4 11	ForumKloster  JRSDAY  13 <sup>th</sup> Sept. 2012
THE	KEY-NOTES
9:00	Status and New Developments in the Field of Compact Thermal
	Storages Wim van Helden, Renewable Heat B.V., Schagen, The Netherlands and AEE INTEC, Gleisdorf, AT
9:25	Challenges and Opportunities for the Use of Polymeric Materials in Solar Thermal Applications Reinhold W. Lang, Johannes Kepler University, Linz, AT
9:50	New Developments and Opportunities of Hybrid Systems based on Solar Thermal Systems Wolfram Sparber, EURAC Research, Bozen, IT
10:15	COFFEE BREAK
TOPIC 4	Markets and Implementing Strategies
10:45	<b>Solar District Heating, Financing and Operation Models</b> Walter Schiefer, Feistritzwerke STEWEAG GmbH, Gleisdorf, AT
11:05	Capacity Building on Solar Thermal Know-how in the Caribbean Melanie Bader, S.O.L.I.D. GmbH, Graz, AT
11:25	Solar Thermal Generation Cost for Industrial Processes in Spain Marc Vives, Institut de Recerca en Energia de Catalunya, Barcelona, ES
11:45	Industrial Design for Solar Thermal, On the Track to a Lifestyle & Consumer Product Robert Buchinger, Sunlumo Technolgy GmbH, Perg, AT
12:00	Short Presentations of Exhibitors
12:50	LUNCH BREAK and VISITING poster and technical exhibition
PARALLEL TOPIC 5A	Thermal Storages
14:30	Austrian Masterplan – Thermal Energy Storages Bernhard Zettl, ASIC, Austrian Solar Innovation Center, Wels, AT
14:45	Seasonal Storage with a combined Vacuum/Polyurethane- Insulation Concept Claudius Wihelms, FSAVE Solartechnik GmbH, Kassel, DE
15:05	Findings of Designs and Operation of three German Solar Assisted District Heating Systems with Seasonal Storage Janet Nußbicker-Lux, Stuttgart University, DE







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15:25	Super-insolated long-term Water Storage combined with a new Stratification Device for high Solar Fractions Thomas Beikircher, ZAE Bayern, Garching bei München, DE
15:45	Vacuum Insulation for Thermal Energy Storages Florian Altenburger, AEE INTEC, Gleisdorf, AT
16:00	COFFEE BREAK
PARALLEL TOPIC 5B	Solar Hybrid Systems – System Solutions for High Solar Fractions
14:30	Exergetic Optimization of a Hybrid System based on Solar thermal, Photovoltaic, Borehole Heat Exchanger and Heat-Pump Yves Nicolas Stettler, Institute for Technology in Architecture, Zurich, CH
14:45	Solar and Heat Pump Combinations incl. Waste Water Heat Recovery: Energetic Assessment based on TRNSYS Simulations Werner Lerch, Graz University of Technology, AT
15:00	Simulation Study of a Coupling Concept based on Solar Thermal Collectors and Gas Driven Sorption Heat Pumps for New and Retrofitted Residential Buildings Christian Glück, Karlsruhe Institute of Technology, Karlsruhe, DE
15:15	The Kioto Solar Heating System Roland Pellegrini, KIOTO Clear Energy AG, St. Veit, AT
15:45	Evaluation and Assessment of six Solar Combi Systems with Heat Pumps Alexander Thür, AEE INTEC, Gleisdorf, AT
16:00	COFFEE BREAK
PARALLEL TOPIC 6A	Polymeric Materials for Solar Thermal Applications
TOPIC 6A	Applications  Collector Systems with Plastic Absorber – Material and Property Profiles
16:30	Applications  Collector Systems with Plastic Absorber – Material and Property Profiles Gernot Wallner, Johannes Kepler University, Linz, AT  Thermal Performance Requirements on Polymeric Materials in Solar Thermal Systems
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16:30 16:45 17:00 PARALLEL TOPIC 6B 16:30	Collector Systems with Plastic Absorber – Material and Property Profiles Gernot Wallner, Johannes Kepler University, Linz, AT  Thermal Performance Requirements on Polymeric Materials in Solar Thermal Systems Alexander Kaiser, AEE INTEC, Gleisdorf, AT  Thermal Loads on Solar-Thermal Flat-Plate Collectors and Strategies for their Reduction Christoph Reiter, Ingolstadt University for Applied Sciences, Ingolstadt, DE  Industrial Process Heat  Solar Process Heat for Sustainable Automobile Manufacturing Oliver Iglauer, Dürr Systems GmbH, Bietigheim-Bissingen, DE  Pilot System for Solar Process Heat at the Hütt-Brewery
16:30  16:45  17:00  PARALLEL TOPIC 6B  16:30  16:45	Collector Systems with Plastic Absorber – Material and Property Profiles Gernot Wallner, Johannes Kepler University, Linz, AT  Thermal Performance Requirements on Polymeric Materials in Solar Thermal Systems Alexander Kaiser, AEE INTEC, Gleisdorf, AT  Thermal Loads on Solar-Thermal Flat-Plate Collectors and Strategies for their Reduction Christoph Reiter, Ingolstadt University for Applied Sciences, Ingolstadt, DE  Industrial Process Heat  Solar Process Heat for Sustainable Automobile Manufacturing Oliver Iglauer, Dürr Systems GmbH, Bietigheim-Bissingen, DE  Pilot System for Solar Process Heat at the Hütt-Brewery Christoph Lauterbach, Kassel University, DE  Solar Heat Concepts adjusted to the Processes of the Brewing Industry Franz Mauthner, AEE INTEC, Gleisdorf, AT

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FRII	DAY 14 <sup>th</sup> Sept. 2012
	KEY-NOTES
9:00	Industrial Process Heat Christoph Brunner, AEE INTEC, Gleisdorf, AT
9:25	Current Collector Developments Michael Hermann, Fraunhofer Institute for Solar Energy Systems, Freiburg, DE
9:45	Status and Challenges in Solar Cooling and Air Conditioning Daniel Mugnier, TECSOL SA, Perignan, FR
10:15	COFFEE BREAK
TOPIC 7	System- and Component Developments
10:45	Innovative System Technologies for modern Buildings with High Solar Fraction Henner Kerskes, ITW University Stuttgart, DE
11:05	Solar-Active Houses and Passive Houses as Building Concept of the Future Fabian Ochs, Innsbruck University, AT
11:25	Durability of Solar Thermal Collectors and its Components  – Outdoor Testing at different Climatic Conditions and accelerated Indoor Aging Tests  Karl-Anders Weiß, Fraunhofer Institute for Solar Energy Systems, Freiburg, DE
11:40	Certification of Medium-Temperature Collectors – Results of three new Austrian Developments  Christoph Zauner, AIT, Vienna, AT
12:00	LUNCH BREAK and VISITING poster and technical exhibition
TOPIC 8	Solar Cooling and Air Conditioning
13:30	<b>EVASOLK –Perspectives of Solar Thermal and Photovoltaic Cooling</b> <i>Björn Nienborg, Fraunhofer Institute for Solar Energy Systems, Freiburg, DE</i>
13:45	Operation Experiences with two Solar Heating and Cooling Systems in Gleisdorf Martin Vukits, AEE INTEC, Gleisdorf, AT
14:00	Innovative and Energy Efficient Concept for Solar Cooling Romain Sire, TECSOL SA, Perpignan, FR
TOPIC 9	Architectural Aspects of Solar Thermal Systems and Building Integration
14:25	Retrofit Concepts towards Plus Energy Buildings based on a p pre-fabricated Façade System Karl Höfler, AEE INTEC, Gleisdorf, AT
14:40	Zero Energy Buildings in an Urban Environment - Design Challenges and Opportunities Tobias Weiss, Nussmüller Architekten, Graz, AT
14:55	Metamorphose of a Historical Farm House into a Plus Energy Building Herwig Ronacher, Architekten Ronacher ZT GmbH, Hermagor, AT
15:10	Summary of the Conference and Outlook
15:30	END OF THE CONFERENCE - VISITING technical exhibition

