

2008 SOLARPACES SYMPOSIUM PROGRAM TOPICS OVERVIEW		
Current as of February 27, 2008		
For Additional Information on Symposium Activities Please Visit the "Preliminary Program" Link		
TUESDAY, MARCH 4, 2008-PARALLEL SESSIONS		
8:00 am-9:00 am		
PLENARY-OPENING SESSION/WELCOME		
BALLROOM B		
Dr. Thomas Mancini, SolarPACES EXCO Chair, Symposium Chair, Sandia National Laboratories, USA		
Dr. Hatice Gecol, Director, Nevada Governor's State Office of Energy, USA		
Mr. Frank Wilkins-United States Department of Energy, USA		
PT-1 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Receivers)		
SESSION CHAIR: CHUCK KUTSCHER--NREL	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 9:30 am-11:00 pm		
NAPA A-B		
	Advances in Receiver Technology for Parabolic Troughs	N. Benz, Z. Hacker, M. Mollenhoff, J. Schulte-Fischbeck, and K. Silny; SCHOTT Solarthermie GmbH W. Graf and Ch. Hildebrandt; Fraunhofer ISE
	Progress to Develop an Advanced Solar-Selective Coating	C.E. Kennedy; National Renewable Energy Laboratory (NREL)
	Mechanism of Hydrogen Formation in Solar Parabolic Trough Receivers	L. Moens and D.M. Blake; National Renewable Energy Laboratory (NREL)
	Spectral Control with One-Dimensional Non-Periodic Metal-Dielectric Media for Parabolic Solar Trough Applications	O. Pincon, M. Agrawal, and P. Peumans; Stanford University
	A Numerical Analysis of a High Temperature Solar Collecting Tube, Using Gas as a Heat Transfer Fluid	L. Massidda and A. Varone; Renewable Energies Program, CRS4
SF-1 SOLAR FUELS (Mixed Iron Oxide Cycles)		
SESSION CHAIR: CHRISTIAN SATTLER--German Aerospace Center	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 9:30 am-11:00 am		
NAPA C-D		
	Mixed Iron Oxides for Solar Hydrogen Production Through Two-Step Water Splitting Thermochemical Cycles	R. Fernández-Sáavedra, F. Fresno, M. Sánchez, M.B. Gómez-Mancebo, R. Fernández-Martínez, and A. Vidal; Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT)
	Two-Step Water Splitting by Fe ₂ O ₃ on Monoclinic Zirconia Support Using Thermal Reduction Temperatures of 1400°-1600°C	N. Gokon, H. Murayama, and E. Hiraiwa; Niigata University, Graduate School of Science and Technology J. Umeda, T. Hatamachi, and T. Kodama; Niigata University, Department of Chemistry & Chemical Engineering
	Development and Verification of a Two-Step Thermochemical Process for Solar Hydrogen Production from Water	M. Roeb, J.-P. Säck, P. Rietbroek, M. Neises, M. Ebert, W. Reinalter, M. Schmitz, and C. Sattler; DLR, Solar Research S. Lorentzou, C. Pagkoura, A. Zygianni, C. Agraftiotis, and A.G. Konstandopoulos; APLT, CERTH-CPERI P. Stobbe; Stobbe Tech Ceramics D. Jones and A. Steele; Johnson-Matthey Technology Centre A. Lopez and M. Romero; CIEMAT
	Novel Synthesis of High Surface Area Cobalt Spinel Oxides and Their Application for Solar Thermochemical Hydrogen Production	J.R. Scheife, G. Sargsyan, H.H. Funke, and A.W. Weimer; University of Colorado at Boulder A. Frances; Technológico de Monterrey
	Progress in Understanding Factors Governing the Sodium Manganese Ferrite Thermochemical Cycle	C. Alvani, M. Bellusci, A. La Barbera, F. Padella, L. Seralessandi, and F. Varsano; ENEA Italian National Agency for New Technologies, Energy and the Environment
CR-1 CENTRAL RECEIVER SYSTEMS (Optical Assessment Techniques)		
SESSION CHAIR: GREG KOLB--Sandia National Labs	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 11:30 am-1:00 pm		
NAPA A-B		
	Solar Power Tower Jülich - The First Test and Demonstration Plant for Open Volumetric Receiver Technology in Germany	K. Hennecke and P. Schwarzbözl; German Aerospace Center (DLR), Institute of Technical Thermodynamics S. Alexopoulos, J. Götsche, and B. Hoffschmidt; University of Applied Sciences Aachen, Solar Institute Jülich (SIJ) M. Beuter and G. Koll; Kraftanlagen München GmbH (KAM) T. Hartz; Stadtwerke Jülich GmbH
	Analysis of Beam Shape and Flux Distribution of BSE/LUZ II Compact Heliostats	D. Franck, J. Schwarzbach, and E. Dagan; Luz II
	Fast Determination of Heliostat Shape and Orientation by Edge Detection and Photogrammetry	M. Röger, C. Prahl, and S. Ulmer; German Aerospace Center (DLR), Institute of Technical Thermodynamics, Solar Research
	Method of Canting for Tower Reflector Facets	A. Segal and M. Epstein; Solar Research Facilities Unit, Weizmann Institute of Science
	Optical Assessment of CSIRO Solar Array Heliostats	T.R. Ritchie, A.I. Burton, A.G. Imenes, and W. Stein; National Solar Energy Centre - CSIRO Energy Technology

SF-2 SOLAR FUELS (Thermochemical Cycles)		
SESSION CHAIR: CHRISTIAN SATTLER--German Aerospace Center	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 11:30 am-1:00 pm		
NAPA C-D		
	Modeling of a Volumetric Solar Reactor for Volatile Metal Oxide Reduction	P. Charvin, S. Abanades, P. Neveu, and G. Flamant; PROcesses, Materials and Solar Energy Laboratory F. Lemot; Commissariat à l'Energie Atomique, Rhône Valley Research Center
	The Solar SnO ₂ /S _n Carbothermic Cycle for Splitting Water and Production of Hydrogen	M. Epstein, I. Vishnevetsky, and A. Berman; Solar Research Facilities Unit, Weizmann Institute of Science
	The Rapid Dissociation of Manganese Oxide to Produce Hydrogen	T.M. Francis, C.S. Carey, P.R. Lichty, and A.W. Weimer; University of Colorado at Boulder R. Rennels; University of Nevada-Las Vegas
	Hydrogen Production by the Solar-Driven Electrolysis of Sulfurous Acid	J.T. Hinkley and S.-E. Lindquist; CSIRO Energy Technology
	Technological Advances Toward Scale-Up of a Solar Chemical Reactor for Thermal ZnO Decomposition	L.O. Schunk, D. Gstoehl, and A. Meier; Solar Technology Laboratory, Paul Scherrer Institut A. Steinfeld; Solar Technology Laboratory, Paul Scherrer Institut and ETH Zurich
PT-2 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Collector Performance)		
SESSION CHAIR: CHUCK KUTSCHER--NREL	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 2:30 pm-4:00 pm		
NAPA A-B		
	Development of the TOP Alignment System for Parabolic Trough Solar Concentrators	R.B. Diver and T.A. Moss; Sandia National Laboratories
	Performance of the SKAL-ET Collectors of the Andasol Power Plants	U. Herrmann and P. Nava; Flagsol GmbH
	Influence of Measurement Equipment on the Uncertainty of Performance Data from Test Loops for Concentrating Solar Collectors	N. Janotte, E. Lüpfert, and R. Pitz-Paal; German Aerospace Center (DLR), Institute of Technical Thermodynamics Solar Research K. Pöttler; Institute of Technical Thermodynamics Solar Research, Plataforma Solar de Almería (PSA) M. Eck; German Aerospace Center (DLR), Institute of Technical Thermodynamics Solar Research-Pfaffenwaldring E. Zarza; CIEMAT, Plataforma Solar de Almería (PSA) K.-J. Riffelman; Flagsol GmbH
	Combining Solar Irradiance Measurements and Various Satellite-Derived Products to a Site-Specific Best Estimate	R. Meyer; SunTechnics J.T. Butron, G. Marquardt, and M. Schwandt; EPURON SLA N. Geuder; DLR, Institute of Technical Thermodynamics-Plataforma Solar de Almería C. Hoyer-Klick; DLR, Institute of Technical Thermodynamics, Systemanalyse & Technikbewertung E. Lorenz and A. Hammer; Carl von Ossietzky Universität Oldenburg H.G. Beyer; University of Applied Sciences Magdeburg-Stendal
	Towards a Standardized Characterization of Parabolic Trough Collectors	E. Rojas, E. Zarza, A. Fernández-García, and L. González; PSA - CIEMAT
De-1 DISH/ENGINE TECHNOLOGY (Dish Systems)		
SESSION CHAIR: PETER HELLER--GERMAN AEROSPACE CENTER	TITLE	AUTHORS AND AFFILIATIONS
2:30 pm-4:00 pm		
NAPA C-D		
	Development of A Tube Receiver For a Solar-Hybrid Microturbine System	L. Amsbeck, R. Buck, P. Heller, J. Jedamski, and R. Uhlig' German Aerospace Center (DLR), Institute of Technical Thermodynamics
	Dish Stirling Development for Utility-Scale Commercialization	C.E. Andraka and M. Powell; Sandia National Laboratories
	Optical Simulation of a 10 KW _e Dish/Stirling Unit Using Ray-Tracing Code SOLTRACE	F. Nepveu, and A. Ferrière; Laboratoire PROMES, UPR CNRS S. Ulmer; Deutsche Zentrum für Luft und Raumfahrt, Plataforma Solar de Almería B. Rodriguez; Jacob Blaustein Institute for Desert Research, Ben Gurion University of the Negev
	Parabolic Dish Development in Mexico	C. Ramos, R. Ramírez, J. Lagunas, and J.M. Huacuz; Instituto de Investigaciones Eléctricas
	Thermal Performance of Volumetric Air Receiver Filled With Porous Material for 5kW Dish-Type Solar Thermal System in Inha University	J.H. Seo, D.S. Ma, Y. Kim, and T. Seo; Inha University G.Y. Han; Sungkyunkwan University S.N. Leed and Y.H. Kang; Korea Institute of Energy Research

PT-3 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Heat Transfer Fluids)		
SESSION CHAIR: CHUCK KUTSCHER--NREL	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 4:30 pm-6:00 pm		
NAPA A-B		
	Improved Molten Salt Formulations for Heat Transfer Fluids in Parabolic Trough Solar Power Systems	R.W. Bradshaw and D.A. Brosseau; Sandia National Laboratories-Livermore
	Extending Organic Heat Transfer Fluid Life in Aging Solar Energy Generation Systems	B.S. Bevacqua; Purdue University R. Prakash; Washington University C.E. Gamble; University of Alabama
	Thermofluidynamic Model and Comparative Analysis of Parabolic Trough Collectors Using Oil, Water/Steam Or Molten Salt as Heat Transfer Fluids	M.J. Montes; Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT) A. Abanades and J.M. Martínez-Val; Universidad Politécnica de Madrid
	Experimental Study on Molten Salt Heat Transfer	W. Yu-ting, L. Bin, Y. Meng, M. Chong-Fang, and L. Bin; Beijing University of Technology
APP-1 CSP APPLICATIONS AND DESALINATION (Process Heat from Parabolic Trough/Power Plant Technology)		
SESSION CHAIRPERSON: CHERYL KENNEDY--NREL	TITLE	AUTHORS AND AFFILIATIONS
TUESDAY 4:30 pm-6:00 pm		
NAPA C-D		
	Organic Rankine Cycle Driven by Parabolic Trough Solar Collectors: Pilot Test Facility at the Plataforma Solar de Almería	J. Blanco, D. Alarcón, W. Gemjak, and E. Guillén; CIEMAT-Plataforma Solar de Almería.
	The P3 Demonstration Plant: Direct Steam Generation for Process Heat Applications	K. Hennecke, T. Hirsch, and D. Krüger; German Aerospace Center, Institute of Technical Thermodynamics A. Lokurlu; Solitem GmbH M. Walder; Alando Aluminium-Veredlung GmbH & Co
	Comparison of Thermal Behaviour of Parabolic Trough Designs By CFD Analysis	A. Fernández-García, E. Zarza, E. Rojas, and M. Pérez; PSA - CIEMAT
	Direct Steam Generation with Parabolic Trough Collectors	L.G. Vidriales and O.A. Jaramillo; Universidad Nacional Autónoma de México, Centro de Investigación en Energía
WEDNESDAY, MARCH 5, 2008-INDUSTRY DAY PANELS		
CSP PLANTS TODAY--WHAT'S WORKING AND WHAT'S BEING BUILT		
CHAIRMAN: DR. MICHAEL GEYER, Director, International Business Development, Abengoa Solar S.A., Spain	TITLE	AUTHORS AND AFFILIATIONS
WEDNESDAY 8:00 am-9:00 am		
BALLROOM B		
	Nevada Solar One and Other Projects under Construction in Spain	G. Cohen; Acciona
	Update on SEGS	D. Feldman; FPL Energy
	Iberdrola Renewables and Solar Thermal Technologies	C. Hernandez Gonzalvez, A. Martinez Palacio, S. Caballero Ocaña, and C. Heredero Bueno; Iberdrola Renewables
	PS-10, PS-20, Solnova 1, Algeria and Morocco	TBD; Abengoa Solar
	AndaSol 1 and AndaSol 2	TBD; ACS Cobra
CURRENT POLICY FRAMEWORK FOR CSP		
CHAIRMAN: DR. MICHAEL GEYER, Director, International Business Development, Abengoa Solar S.A., Spain	TITLE	AUTHORS AND AFFILIATIONS
WEDNESDAY 9:30 am-11:00 pm		
BALLROOM B		
	California Policy Situation	R. McCahon; CEERT
	Southwestern United States Policy Situation	A. Ormond
	Theoretical Economic Potential of the Spanish Premium Tariff for Solar Thermal Power Plants	M. Wittmann, M. Eck, T. Hirsch, and R. Pitz-Paal; DLR German Aerospace Center
	Solar Zones on Federal Lands	J. Stobaugh; BLM
	Federal Energy Regulatory Commission (FERC)	TBD; FERC
MARKET OUTLOOK FOR CSP		
CHAIRMAN: DR. MICHAEL GEYER, Director, International Business Development, Abengoa Solar S.A., Spain	TITLE	AUTHORS AND AFFILIATIONS
WEDNESDAY 11:30 am-1:00 pm		
BALLROOM B		
	Modeling of the Impact of State and Federal Incentives on Concentrating Solar Power Market Penetration	N. Blair, W. Short, and M. Mehos; National Renewable Energy Laboratory (NREL)
	Introducing Concentrated Solar Power on the International Market – Worldwide Incentives, Policies and Benefits	M. Geyer; Abengoa Solar
	Solar Thermal Electricity as the Primary Replacement for Coal and Oil in U.S. Generation and Transportation	D.R. Mills and R.G. Morgan; Ausra, Inc.

	SEIA/ESTIA Perspectives on CSP Market Outlook	TBD; SEIA
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THURSDAY, MARCH 6, 2008-PARALLEL SESSIONS		
PLENARY		
THURSDAY 8:00 am-9:00 am		
BALLROOM B		
	Utility Perspective on the Current and Future Value of CSP in the Southwest U.S.	Barbara Lockwood, Arizona Public Service
PT-4 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Polant Modeling/Optimization 1)		
SESSION CHAIR: CHUCK KUTSCHER--NREL	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 9:30 am-11:00 am		
NAPA A-B		
	Sensitivity of Concentrating Solar Power Trough Performance, Cost and Financing with Solar Advisor Model	N. Blair, M. Menos, and C. Christensen; National Renewable Energy Laboratory (NREL)
	Technical and Economic Performance off Parabolic Trough Solar Power Plants - a Computational Tool for Plant Feasibility Studies	J. Rheinländer; Zentrum für Sonnenenergie und Wasserstoff-Forschung (ZSW) Baden-Württemberg (BW) S. Bergmann; SimTech Simulation Technology M.R. Erbes; Ergonomix
	Techno-Economic System Simulation and Optimization of Solar Thermal Power Plants	G. Morin and W. Platzer; Fraunhofer Institute for Solar Energy Systems M. Strelow and R. Leithner; Technical University of Braunschweig, Institute for Heat and Fuel Technology.
	Optimizing the Operating Temperature of Parabolic Trough Collector Fields for Solar Thermal Power Plants in Spain	W. Ortmanns, A. Stryk, O. Unterlöhner, J. Freitag, V. García de la Bandera, and G. García Rivero; SunTechnics
	SENSOL as a Key Tool for Solar Commercial Projects	S. Reloso and B. Olabarri; SENER
SF-3 SOLAR FUELS (Carbon-Based Processes)		
SESSION CHAIR: CHRISTIAN SATTLER--German Aerospace Center	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 9:30 am-11:00 am		
NAPA C-D		
	Coal Coke Gasification in a Windowed Solar Chemical Reactor for Beam-Down Optics	T. Kodama, S.-i. Enomoto, S. Itoh, T. Hatamachi, and N. Gokon; Niigata University
	Thermodynamic Design Analysis of a Two-Step Thermochemical Cycle for Reducing CO ₂ Using FeO as an Intermediary	P.G. Loutzenhiser; Solar Technology Laboratory, Paul Scherrer Institute A. Steinfeld; Solar Technology Laboratory, Paul Scherrer Institute, and Swiss Federal Technical University (ETH) E. Galvez, I. Hischier, and A. Steinfeld; Swiss Federal Technical University (ETH)
	Effect of Laden Particles on the Thermal Decomposition of Methane Using a Particle-Flow Solar Reactor	G. Maag and A. Steinfeld; ETH Zurich F.J. Gutierrez; ESCET, Rey Juan Carlos University
	Synthesis Gas Production by Rapid Solar Thermal Gasification of Corn Stover	C.M. Perkins; Copernican Energy, Inc., and University of Colorado at Boulder B. Woodruff, L. Andrews, P. Lichty, B. Lancaster, and A.W. Weimer; University of Colorado at Boulder C. Bingham; National Renewable Energy Laboratory (NREL)
	Solar Hybrid Fuel Production with Co Production of Methanol and Metal Mg	Y. Tamura, H. Ishihara, K. Ouchi, and H. Kaneko; Tokyo Institute of Technology
CR-2 CENTRAL RECEIVER SYSTEMS (Component Development)		
SESSION CHAIR: GREG KOLB--Sandia National Labs	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 11:30 am-1:00 pm		
NAPA A-B		
	Receiver-Boiler of LUZ II Central Tower Pilot Plant	Y. Alek, E. Silberstein, G. Kaufmann, and Y. Gilon; SE/LUZ II,
	Mass Production Synergies Between Heliostats and PV Trackers	J. Vázquez, S. Reloso, and M. Domingo; Sener
	On the Pseudo-Horizontally Mounted Line-Focus Heliostat and its Use in Central Receiver Systems	R. Monterreal Espinosa; Plataforma Solar de Almeria (PSA)
	Solar Power Dispatchability Through Thermal Storage – Solar Tres Case	J. Olaso and J.I. Ortega; SENER
	Development of a High Temperature Air Solar Receiver Based on Compact Heat Exchanger Technology	M. Vrinat, P. Mercier, and F. Pra; GRETh-LETH Laboratory (CEA) A. Ferrière, PROMES Laboratory (CNRS)
SF-4 SOLAR FUELS (Reactors and Studies)		
SESSION CHAIR: CHRISTIAN SATTLER--German Aerospace Center	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 11:30 am-1:00 pm		
NAPA C-D		
	Development of a CR5 Solar Thermochemical Heat Engine Prototype	R.B. Diver, N.P. Siegel, and T.A. Moss; Sandia National Laboratories, Solar Technologies Dept. J.E. Miller; Sandia National Laboratories, Ceramic Processing and Inorganic Materials Dept. J.N. Stuecker; Robocasting Enterprises D.L. James; Texas Tech University, Dept. of Mechanical Engineering
	Development of Rotary-Type Solar Reactor for Solar H ₂ Production with Two-Step Water Splitting Reaction	H. Kaneko, H. Fukuzumi, H. Ishihara, S. Taku, Y. Naganuma, N. Hasegawa, and Y. Tamura; Tokyo Institute of Technology

	Solar Thermal Reactor Materials Characterization	P.R. Lichty, C.M. Perkins, and A.W. Weimer; University of Colorado at Boulder A.M. Scott; Vanderbilt University C. Bingham; National Renewable Energy Laboratory (NREL)
	Solar Hydrogen as Future Transportation Fuel – Well-to-Wheel Analysis and Economic Assessment	R. Felder, A. Meier, and A. Wokaun; Solar Technology Laboratory-Paul Scherrer Institut
	Process Design for Solar Thermo-Chemical Hydrogen Production and Its Economic Evaluation	M. Schmitz, N. Monneriea, D. Graf, D. Quantius, M. Roeb, and C. Sattler; DLR - German Aerospace Center C. Corgnale, C. Salvini, and G. Cerri; Università degli studi C. Mansilla; Commissariat à l'Energie Atomique (CEA)
PT-5 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Plant Modeling/Optimization 2)		
SESSION CHAIR: CHUCK KUTSCHER-NREL	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 2:30 pm-4:00 pm		
NAPA A-B		
	Linear Fresnel Collector Demonstration on the PSA Part I-Design, Construction and Quality control	R. Bernhard and H.-G. Laabs; MAN-Ferrostaal Power Industry J. de Lalaing; Solar Power Group (SPG) M. Eck, M. Eickhoff, and K. Pottler; German Aerospace Center (DLR) G. Morin, A. Heimsath, and A. Georg; Fraunhofer Institute of Solar Energy Systems, FhG-ISE A. Häberle; PSE AG
	Linear Fresnel Collector Demonstration on the PSA Part II-Commissioning and First Performance Tests	R. Bernhard, S. Hein; MAN-Ferrostaal Power Industry, J. de Lalaing; Solar Power Group (SPG) M. Eck, M. Eickhoff, and M. Pfander; German Aerospace Center (DLR), Institute of Technical Thermodynamics G. Morin; Fraunhofer Institute of Solar Energy Systems, A. Häberle; PSE AG
	Characterization of Optical Components for Linear Fresnel Collectors by Fringe Reflection Method	A. Heimsath and W. Platzer; Fraunhofer Institute of Solar Energy Systems T. Bothe; BIAS, Bremer Institut für Angewandte Strahltechnik W. Li; VEW Vereinigte Elektronikwerkstätten
	Application of Simulation Codes from Nuclear Industries to Approach a Solution of Transient Conditions in Solar Power Plants	R. Navio and N. Martínez and M. Sánchez; Abengoa Solar New Technologies L. Valenzuela; CIEMAT – Plataforma Solar de Almería
	Quality Control of Concentrating Collector Components for the Optimization of Performance	W.J. Platzer, A. Georg, A. Heimsath, and C. Hildebrandt; Fraunhofer Institute for Solar Energy Systems
DP-1 DEVELOPING PROJECTS (Developing Projects)		
SESSION CHAIR: DR. MICHAEL GEYER, Abengoa Solar S.A., Spain	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 2:30 pm-4:00 pm		
NAPA C-D		
	Carrizo Plains 177 MW Project	R.G. Morgan and D.R. Mills; Ausra, Inc.
	Parabolic Trough Technology in Abengoa Solar	C. Prieto and R. Osuna; Abengoa Solar New Technologies S.A. Sevilla M. Geyer; Abengoa Solar Promoción Internacional M. Sánchez; Abengoa Solar New Technologies S.A. Madrid V. Fernández-Quero; Abengoa Solar España S.A.
	Plataforma Solar Sanlúcar La Mayor: The Largest European Solar Power Site	R. Osuna; Abengoa Solar New Technologies S.A. (Seville) V. Fernández-Quero; Abengoa Solar España S.A. M. Sánchez; Abengoa Solar New Technologies S.A. (Madrid)
	Engineering of the Sunotechnics 50 MW Parabolic Trough Reference Power Plant for a Location in Spain	T. Schmitt ;SunTechnics GmbH
	Implementation of First Solar Thermal Power Plant in Iran	B. Varasteh; Moshanir Power Engineering Consultant
PT-6 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Storage)		
SESSION CHAIR: CHUCK KUTSCHER--NREL	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 4:30 pm-6:00 pm		
NAPA A-B		
	Conductive Composites as Solar Absorber and Heat Storage Media	D. Haillot; PROMES CNRS UPR, and Saunier Duval ECCI S. Pincemin; PROMES CNRS UPR, and CSTB D. Hernandez, X. Py, R. Olives, V. Goetz; PROMES CNRS UPR
	Economic Analysis of Modular Storage Operation Concepts and Life Cycle Assessment of Concrete Thermal Energy Storage for Parabolic Trough Power Plants	D. Laing, W.D. Steinmann, and P. Viebahn; German Aerospace Center (DLR) F. Gräter; Flagsol GmbH, Cologne (Germany) C. Bahls; Züblin
	Real Application of Molten Salt Thermal Storage to Obtain High Capacity Factors in Parabolic Trough Plants	S. Reloso and Y. Gutiérrez; Sener
	Economical Evaluation on Storage Integration Concepts into Solar Trough Power Plants for the U.S. Market	K.-J. Riffelmann, U. Herrmann, and P. Nava; Flagsol GmbH, R. Dracker and R. Aringhoff; Solar Millennium LLC
	Latent Heat Storage Systems for Solarthermal Power Plants and Process Heat applications	W.-Dieter Steinmann, D. Laing, and R. Tamme; German Aerospace Center (DLR)

CRT-3 CENTRAL RECEIVER SYSTEMS (Analysis Tools)		
SESSION CHAIR: GREG KOLB-- Sandia National Labs	TITLE	AUTHORS AND AFFILIATIONS
THURSDAY 4:30 pm-6:00 pm		
NAPA C-D		
	Dimensioning of Heliostat Components Under Wind and Gravity Load: The Map Approach	E. Teufel, R. Buck, and A. Pfahl; German Aerospace Center (DLR), Institute of Technical Thermodynamics G. Böing and J. Kunert; Siemens Geared Motors GmbH
	Preliminary Design of Surrounding Heliostat Fields	F.J. Collado; Zaragoza University
	BSE/LUZ II's New High Resolution High Accuracy Performance Model for Distributed Power Tower Technology	G. Kroyzer, S. Walzer, J. Schwarzbach, U. Eilat, and J. Gilon; BSE/Luz II
	Interaction Between a Turbulent Flow and Heat Transfers In High Temperature Solar Receivers	S. Serra, S. Husson, and F. Bataille; Rambla de la thermodynamique-PROMES-CNRS
FRIDAY, MARCH 7, 2008-PARALLEL SESSIONS		
PLENARY		
FRIDAY 8:00 am-9:00 am		
BALLROOM B		
	Solar-Thermal Production of Renewable Fuels	Dr. Allan Weimer
PT-7 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Direct Steam)		
SESSION CHAIR: CHUCK KUTSCHER--NREL	TITLE	AUTHORS AND AFFILIATIONS
FRIDAY 9:30 am-11:00 am		
NAPA A-B		
	Direct Steam Generation In Parabolic Troughs at 500°C - A German-Spanish Project Targeted on Component Development and System Design	M. Eck, M. Eckhoff, K. Hennecke, and D. Laing; German Aerospace Center (DLR) A. Biezma, P. Fontela; Endes. K.-J. Riffelmann; Flagsol GmbH M. Nölke; MAN-SolarMillenium GmbH K.-H. Bartling; Senior-Berghöfer M. Möhlenhoff; SCHOTT Solarthermie GmbH Emilio Ezquiero; Millenio Solar C. Bahñ; Ed. Züblin AG
	The Potential of Direct Steam Generation In Parabolic Troughs - Results of The German Project DIVA	M. Eck and F. Feldhoff; German Aerospace Center (DLR) Y. Gilon and K.-J. Riffelmann; Flagsol GmbH T. Mülle and D. Tislarić; Siemens, N. Benz, Z. Hacker and K. Silmy; SCHOTT Solarthermie GmbH
	A Direct Steam Generation Solar Power Plant with Integrated Thermal Storage	J. Birnbaum, M. Fichtner, and G. Zimmermann; Siemens Power Generation M. Eck, T. Hirsch, and D. Lehmann; German Aerospace Center (DLR)
	Almería GDV - The First Solar Power Plant with Direct Steam Generation	Eduardo Zarza; CIEMAT-PSA Cayetano López; CIEMAT Alicia Cámaras; IBERDROLA Alvaro Martínez; IBERDROLA Juan I. Burgalea; SENER José C. Martín; SENER Amparo Fresneda; IDEA
FM-1 FACILITIES AND MEASUREMENTS (Facilities and Measurements)		
SESSION CHAIR: CARL BINGHAM-NREL	TITLE	AUTHORS AND AFFILIATIONS
FRIDAY 9:30 am-11:00 am		
NAPA C-D		
	Testing a Solar- Blind Pyrometer	J. Ballestrin, I. Cañas, and J. Rodríguez; CIEMAT-Plataforma Solar de Almería
	Development of a Conical Cavity Calorimeter for Measuring Highly Concentrated Solar Flux	C.A. Estrada and C. Pérez-Rábago; Centro de Investigación en Energía - Universidad Nacional Autónoma de México J. Ballestrin; CIEMAT - PSA - Solar Concentration Unit
	Thermal Cycling of Solar Absorber Materials Under Concentrated Solar Radiation	A. Rojas-Morín; Universidad Nacional Autónoma de México J. Fernandez-Reche; PSA-CIEMAT
PT-8 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE (Collector/Component Design 1)		
SESSION CHAIR: CHUCK KUTSCHER-NREL	TITLE	AUTHORS AND AFFILIATIONS
FRIDAY 11:30 am-1:00 pm		
NAPA A-B		
	Conceptual Design of an Advanced Trough Utilizing a Molten Salt Working Fluid	G.J. Kolb and R.B. Diver; Sandia National Laboratories
	New SENERTROUGH Collector Development in Collaboration with Key Components Suppliers	S. Reloso, N. Castañeda, and M. Domingo; SENER
	SENERTROUGH - The Collector for Extresol-1 600 Meters Loop Test in Andasol-1 and Test Unit Description	J. Vázquez and N. Castañeda; SENER

APP-2 CSP APPLICATIONS AND DESALINATION (CSP Applications and Desalination)		
SESSION CHAIRPERSON: CHERYL KENNEDY	TITLE	AUTHORS AND AFFILIATIONS
FRIDAY 11:30 am-1:00 pm		
NAPA C-D		
	The Aquasol System: Solar Collector Field Efficiency and Solar-Only Mode Performance	J.Blanco-Gálvez AND D.C. Alarcón-Padilla; CIEMAT-Plataforma Solar de Almería, L. García-Rodríguez; Dpto. Ingeniería Energética. Universidad de Sevilla A. Delgado-Torres; Opto.Física Fundamental y Experimental, Electrónica y Sistemas. Universidad de La Laguna M. Vincent; ECOSYSTEM ENVIRONMENTAL SERVICES
	New Indirectly Heating Solar Fluidized Bed Reactor	I. Cañadas, D. Martínez, and J. Rodríguez; Solar Concentrating Systems, Plataforma Solar de Almería - CIEMAT B. Fernández; Physical Metallurgy Department, CENIM – CSIC A. Vázquez; Corrosion Department, CENIM – CSIC
	Practical Experience with a Linear Concentrating Fresnel Collector for Process Heat Applications	A. Häberle, C. Zahler, F. Luginbühl, and M. Berger; PSE AG
	Solar Photocatalytic Detoxification of Rocket Test Facility Waste Water with a Non Concentrating Tubular Receiver (NCTR) Pilot Plant	C. Sattler, D. Graf, C. Jung, L. de Oliveira, R. Olwig, and J.-P. Säck; German Aerospace Center – DLR, Institute of Technical Thermodynamics, Solar Research H.-J. Bigus, and T. Olbrich; Hirschmann Laborgeräte GmbH & Co. KG V. Dietrich and A. Müller; KACO Gerätetechnik GmbH R. Huth; German Aerospace Center – DLR, Institute of Space Propulsion
PT-9 PARABOLIC TROUGH COLLECTOR TECHNOLOGY AND STORAGE		
SESSION CHAIR:CHUCK KUTSCHER-NREL	TITLE	AUTHORS AND AFFILIATIONS
FRIDAY 2:30 pm-4:00 pm		
NAPA A-B		
	More Light in The Desert: Rioglass Solar, A New Parabolic Trough Mirror Manufacturing Facilities. Lessons from the Automotive Glass Process Methodology.	J. Ubach, F. Miranda, C. Castaño; Rioglass Solar S.A. (Asturias) F. Ainz, J. Martínez, and N. Lafarga; Rioglass S.A. (La Rioja) I. García-Conde; Rioglass Astur S.A. G. Armstrong; Rioglass America LLC R. Osuna and F. Muñoz; Solucar Energia S.A.
	Parabolic Trough Collector Wind Tunnel Investigation for Suntechnics Solar Thermal Power Plants	C. Holze; machtWissen.de AG, A. Stryk; SunTechnics GmbH
	New Flexible Connection System for Parabolic Trough Collectors	F.O. Vives and A. Kaufung; Senior Berghoefen GmbH