Program of the 8th SOLLAB Doctoral Colloquium

On Solar Concentrating Technologies
25th-26th June, 2012. PSA-CIEMAT

Monday 25 of June

Time	Activity	
8:00º	**Registration**	
	Welcome Address	
8:50	'European R&D on CSP: Joint Programming Activities'	Diego Martínez
	TOPIC: 1º SOLAR FUELS **Chair: Robert Pitz-Paal**	
Time	**Presentation Title**	**Presenting Author**
9:00	Fuel production by reduction of CO2 using concentrated sunlight – A material study	Friedemann Call
9:25	Development of a solar reactor for thermochemical water-splitting	Jan Felinks
9:50	Numerical Analysis of Process Dynamics of Thermochemical Water Splitting Process	Matthias Lange
10:05	Two-step solar thermochemical cycle for splitting CO2 via ceria redox reactions – Experimental investigation with a 3.8 kW solar reactor	Philipp Furler
10:30	**Coffee break**	
	TOPIC: 1º POINT FOCUS SYSTEMS **Chair: Jesús Ballestrín**	
Time	**Presentation Title**	**Presenting Author**
11:00	Modeling a falling particle receiver with face-down geometry for large scale electricity generation	Birgit Gobereit
11:25	Optimization of a high temperature solar receiver by poly-dispersion of particles	Freddy Ordonez
11:40	Homogeneous fluidization predicted by CFD-DEM simulations: hydrodynamic stability of gas-fluidized beds	Jan Marti
12:05	A solar particle receiver for small gas turbine systems	Wei Wu
12:30	**Lunch**	
	TOPIC: DETOXIFICATION AND DESALINATION **Chair: Isabel Oller**	
Time	**Presentation Title**	**Presenting Author**
14:00	Optimization of mild solar TiO2 photocatalysis as a tertiary treatment for municipal wastewater treatment plant effluents	Lucia Prieto

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14:25	Wastewater disinfection by solar photo catalysis	Majdi KACEM
14:50	Degradation of acetaminophen using TiO_2 supported on glass spheres irradiated in a CPC Solar Pilot Plant.	Margarita Jimenez
15:15	Combined Electricity and Water Production basing on Solar and Wind Energy	Massimo Moser
15:40	**Coffee break**	
TOPIC: 1º LINEAR FOCUS SYSTEMS Chair: Robert Pitz-Paal		
Time	**Presentation Title**	**Presenting Author**
16:10	Test bench for parabolic trough receivers characterization	Carmen Fernández
16:35	The once-through concept in DSG power plants– Design aspects of the demonstration plant	Jan Fabian Feldhoff
17:00	Design of a novel cavity receiver based on air for trough concentrating solar power	Philipp Good
17:25	Investigations on soiling in Morocco and Spain	Fabian Wolfertstetter
TOPIC: PV SYSTEMS Chair: Diego Martínez		
Time	**Presentation Title**	**Presenting Author**
17:50	Experimentation and optimization of a PV/Diesel hybrid system for the electricity generation in rural and peri-urban areas of sub-Saharan Africa countries: The “flexy-energy” concept	Daniel Yamegueu
18:15	On-sun tests and design optimization of a 600x CPV collector based on an inflated trough primary with tracking secondary optics	Thomas Cooper
TOPIC: 2º POINT FOCUS SYSTEMS Chair: Diego Martinez		
Time	**Presentation Title**	**Presenting Author**
18:40	Conception by inverse methods of innovative optics for concentrated solar power : the application to beam down concentrators	Olivier Farges
19:05	Two interesting wavelength bands for IR thermometry	Aitor Marzo

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Tuesday, 26 of June

TOPIC: 3º POINT FOCUS SYSTEMS Chair: Jesús Ballestrín		
Time	**Presentation Title**	**Presenting Author**
9:00	Accelerated aging of a material used in high-concentration solar receivers	Antoine Boubault
9:25	Degradation mechanisms of tube type receivers exposed at high solar flux	Eneko Setien
9:50	Modelling approaches for dynamic wind loads on heliostats	Felipe Vásquez
10:05	Control of the flux distribution on a solar tower receiver using an optimized aim point strategy: Application to THEMIS power tower	Adrien Salome
10:30	**Coffe break**	
TOPIC: 4º POINT FOCUS SYSTEMS Chair: Bernhard Hoffschmidt		
Time	**Presentation Title**	**Presenting Author**
11:00	Design and thermal analysis of a volumetric receiver for the PSA Solar Furnace	Maria Isabel Roldán
11:25	Analysis of convective losses of cavity receivers and adequate reduction strategies	Robert Flesch
11:40	A modular ceramic cavity-receiver for high-temperature high-concentration solar applications	Peter Pozivil
12:05	Analysis of the air return ratio and influence of wind for the open volumetric air receiver	Daniel Maldonado
12:30	**Lunch**	

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TOPIC: STORAGE **Chair: Eduardo Zarza**		
Time	**Presentation Title**	**Presenting Author**
14:00	Steelmaking slag, a valuable material for high temperature thermal energy storage	Guilhem Dejean
14:25	Generic heat and mass transfer model of a thermochemical packed bed reactor for thermal storage of solar energy	Stefan Ströhle
14:50	High temperature latent heat storage for thermal protection of concentrated solar absorbers : application to the PEGASE project	David Bellard
15:15	High temperature thermal storage for concentrating solar power: Model and experimental results	Giw Zanganeh
15:40	**Coffee break**	
TOPIC: 2º LINEAR FOCUS SYSTEMS **Chair: Eduardo Zarza**		
Time	**Presentation Title**	**Presenting Author**
16:10	Non-destructive optical efficiency measurement of parabolic trough receivers using a solar simulator with linear focus	Johannes Pernpeintner
16:35	Three-dimensional optical and thermal numerical model of solar tubular receivers in parabolic trough concentrators	Men Wirz
17:00	Measurement and modelling of parabolic trough mirror shape in different mirror angles	Siw Meiser
17:25	Low power cogeneration from concentrated solar energy	Arnaud Jourdan
TOPIC: 2º SOLAR FUELS **Chair: Bernhard Hoffschmidt**		
Time	**Presentation Title**	**Presenting Author**
17:50	Two-step redox hydrogen production plant simulator tool	Alberto de la Calle
18:15	Solar-driven steam gasification of sugarcane bagasse	Michael Kruesi
18:40	Solar fuels production from thermochemical cycles: kinetic study of the solar reduction of metal oxides	Gaël Levêque
19:05	Adjournment	Diego Martínez