

## 2<sup>nd</sup> European sCO<sub>2</sub> Conference 2018

**Location:**  
**Kraftwerksschule e.V. (KWS),**  
**Deilbachtal 199,**  
**45257 Essen, Germany**

**Date: 30-31 August 2018**

### Agenda

<b>Thursday 30<sup>th</sup> August 2018</b>	
11:00 – 12:00	Welcome reception including lunch (KWS building)
12:00 – 12:20	Welcome note by Dieter Brillert and group photo
12:20 – 12:50	Keynote speech by Albannie Cagnac, Electricité de France (EdF)
13:00 – 14:30	sCO <sub>2</sub> -cycles and their applications (session 1)
	Compressor / Turbine / Generator (session 2)
14:30 – 15:00	Coffee break
15:00 – 16:30	sCO <sub>2</sub> -cycles and their applications (session 3)
	Compressor / Turbine / Generator (session 4)
16:30 – 17:30	sCO <sub>2</sub> -HeRo lab tour (glass model)
19:00 – 22:30	Conference Dinner at "Brauerei Dampfe"

<b>Friday 31<sup>st</sup> August 2018</b>	
09:00 – 10:00	sCO <sub>2</sub> -cycles and their applications (session 5)
	Heat transfer and heat exchanger (session 6)
10:00 – 10:30	Coffee Break
10:30 – 12:00	sCO <sub>2</sub> -cycles and their applications (session 7)
	Heat transfer and heat exchanger (session 8)
12:00 – 13:00	Lunch incl. some take away

<b>Thursday 30<sup>th</sup> August 2018</b>			
<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>ID + Room</b>
10:00 – 12:00	Bus transfer from Station “Essen-Kupferdreh” to meeting venue (approx. every 20min)		
11:00 – 12:00	Welcome reception including lunch (KWS building)		
12:00 – 12:20	Welcome note by Dieter Brillert and group photo		
12:20 – 12:50	Keynote speech	Albannie Cagnac, Electricité de France (EdF)	Room 1
<b>sCO<sub>2</sub>-cycles and their applications (session 1)</b>			<b>Room 1</b>
13:00 – 13:30	First Operational Experience From The Supercritical CO <sub>2</sub> Experimental Loop	Vojacek, Ales; Frybort, Otakar; Hacks, Alexander	2018-sCO <sub>2</sub> .eu-100
13.30 – 14:00	Economic Forecasting For Solar-Energy Assisted Supercritical CO <sub>2</sub> Brayton Cycle	Noaman, Mohamed B.; Morosuk, Tatiana; Tsatsaronis, George	2018-sCO <sub>2</sub> .eu-130
14:00 – 14:30	Design, Control and Start-up of the sCO <sub>2</sub> Test Facility Scarlett	Flaig, Wolfgang; Mertz, Rainer; Starflinger, Jörg	2018-sCO <sub>2</sub> .eu-106
<b>Compressor / Turbine / Generator (session 2)</b>			<b>Room 2</b>
13:00 – 13:30	Design Of A Single-Shaft Compressor, Generator, Turbine For Small-Scale Supercritical CO <sub>2</sub> Systems For Waste Heat To Power Conversion Applications	De Miol, Maxence; Bianchi, Giuseppe; Henry, Gabriel; Holaind, Norman; Tassou, Savvas A.; Leroux, Arthur	2018-sCO <sub>2</sub> .eu-112
13.30 – 14:00	Experimental Investigation of the sCO <sub>2</sub> -HeRo Compressor	Hacks, Alexander Johannes; Vojacek, Ales; Dohmen, Hans Josef; Benra, Friedrich-Karl; Brillert, Dieter	2018-sCO <sub>2</sub> .eu-115

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<b>Time</b>	<b>Title</b>	<b>Author(s)</b>	<b>ID + Room</b>
14:00 – 14:30	Scaling Considerations for the Application of the sCO <sub>2</sub> -HeRo System in Nuclear Power Plants	Hacks, Alexander Johannes; Dohmen, Hans Josef; Benra, Friedrich-Karl; Brillert, Dieter	2018-sCO <sub>2</sub> .eu-116
14:30 – 15:00	Coffee break		
<b>sCO<sub>2</sub>-cycles and their applications (session 3)</b>			<b>Room 1</b>
15:00 – 15:30	Evaluation of sCO <sub>2</sub> power cycles for direct and waste heat applications	Glos, Stefan; Schlehuber, Dominic; Wechsung, Michael; Wagner, Rebecca; Heidenhof, Andre	2018-sCO <sub>2</sub> .eu-107
15:30 – 16:00	Supercritical CO <sub>2</sub> Heat Removal System, - Integration into European PWR Fleet	Hájek, Petr; Vojacek, Ales; Hakl, Vaclav	2018-sCO <sub>2</sub> .eu-109
16:00 – 16:30	Concept And Preliminary Design Of A 600 °C+ sCO <sub>2</sub> Test Facility	Gampe, Uwe; Henoeh, Jasmin; Gerbeth, Gunter; Hampel, Uwe; Hannemann, Frank; Rath, Sebastian	2018-sCO <sub>2</sub> .eu-110
<b>Compressor / Turbine / Generator (session 4)</b>			<b>Room 2</b>
15:00 – 15:30	Comparison of CO <sub>2</sub> Critical Flow Model Based on Henry-Fauske Model with Two-phase Flow	Kim, Min Seok; Oh, Bong Seong; Jung, Hwa-Young; Bae, Seong Jun; Lee, Jeong Ik	2018-sCO <sub>2</sub> .eu-119
15:30 – 16:00	Start Up Modeling of S-CO <sub>2</sub> Cycles Using Beta Line Method Of Turbomachinery Performance Map	Oh, Bong-Seong; Kim, Seong Gu; Cho, Seong Kuk; Bae, Seong Jun; Lee, Jeong Ik	2018-sCO <sub>2</sub> .eu-124
16:00 – 16:30	Design and dynamic simulation of a 200 kwth laboratory sCO <sub>2</sub> -test rig	Gregor, Klemencic; Werner, Andreas; Leibinger, Helmut; Steinschaden, Norbert; Nowack, Tim; Flegkas, Stylianos; Haider, Markus; Fellner, Thomas; Bergthaller, Thomas	2018-sCO <sub>2</sub> .eu-149
16:30 – 17:30	sCO <sub>2</sub> -HeRo lab tour (glass model)		

### Thursday 30<sup>th</sup> August 2018

Time	Title	Author(s)	ID + Room
18:00	Bus transfer from meeting venue to hotels		
19:00	Bus transfer from hotels to dinner venue		
19:30 – 22:30	Dinner event		
22:30	Bus transfer back to hotels		

### Friday 31<sup>st</sup> August 2018

Time	Title	Author(s)	ID + Room
08:00	Bus transfer from hotels to meeting venue		
<b>sCO<sub>2</sub>-cycles and their applications (session 5)</b>			<b>Room 1</b>
09:00 – 09:30	Effects of Cold Temperature and Main Compressor Intercooling on Recuperator and Recompression Cycle Performance	Weiland, Nathan T.; White, Charles W.; O'Connell, Andrew C	2018-sCO <sub>2</sub> .eu-111
09:30 – 10:00	sco <sub>2</sub> Closed Brayton Cycle For Coal-Fired Power Plant: An Economic Analysis Of A Previous Technical Optimization	Mecheri, Mounir	2018-sCO <sub>2</sub> .eu-118
<b>Heat transfer and heat exchanger (session 6)</b>			<b>Room 2</b>
09:00 – 09:30	Experimental Investigation On Heat Transfer Between Condensing Steam And sCO <sub>2</sub> In Compact Heat Exchangers	Straetz, Marcel Ralf; Mertz, Rainer; Starflinger, Jörg	2018-sCO <sub>2</sub> .eu-104
09:30 – 10:00	Flow and Heat Transfer Characterization for Supercritical CO <sub>2</sub> During Heat Rejection	Pandey, Sandeep; Laurien, Eckart; Chu, Xu	2018-sCO <sub>2</sub> .eu-105
10:00 – 10:30	Coffee break		

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<b>sCO<sub>2</sub>-cycles and their applications (session 7)</b>			<b>Room 1</b>
10:30 – 11:00	A Novel Approach To Accurately Model Heat Transfer To Supercritical Fluids	Otero-Rodriguez, Gustavo; Patel, Ashish; Pecnik, Rene	2018-sCO <sub>2</sub> .eu-123
11:00 – 11:30	Impact of CSP Design Parameters on sCO <sub>2</sub> -based Solar Tower Plants	Buck, Reiner; Giuliano, Stefano	2018-sCO <sub>2</sub> .eu-128
11:30 – 12:00	Feasibility Study Of Supercritical Co <sub>2</sub> Rankine Cycle For Waste Heat Recovery	Shah, Amit; Trivedi, Yagneshkumar; Dave, Ashish Kumar; Chauhan, Haresh; Patel, Kishan; Dave, Punitkumar; Mehta, Vishal	2018-sCO <sub>2</sub> .eu-101
<b>Heat transfer and heat exchanger (session 8)</b>			<b>Room 2</b>
10:30 – 11:00	Preliminary Experimental Study Of CO <sub>2</sub> Based Mixture Supercritical Power Cycle	Baik, Seungjoon; Lee, Jeong Ik	2018-sCO <sub>2</sub> .eu-121
11:00 – 11:30	Heat transfer measurements in horizontal flow at supercritical pressures and under organic Rankine cycle conditions	Lazova, Marija; De Paepe, Michel	2018-sCO <sub>2</sub> .eu-126
11:30 – 12:00	-		
12:00 – 13:00	Lunch incl. some take away		
12:00 – 14:00	Bus transfer from meeting venue to Station “Essen-Kupferdreh” (approx. every 20min)		