



2nd Real SOFC Workshop
22-23 June 2005
Simmerath- Einruhr, Germany



Workshop on Characterization, Industrial Standards, and Quality Assurance in SOFC

22-23 June 2005, Simmerath-Einruhr, Germany
Working language is English.

Programme

Wednesday, 22 June 2005		
08:30 – 08:45	Welcome / Organization	R. Steinberger/ H. Nabielek
08:45 – 09:15	We do not need QA, do we ?	St. Küppers, FZJ
	Production 1: Powder/Processing/Materials	Chair: A. Kaiser, Risø
	Characterization, control methods, acceptance criteria, acceptance testing of base materials and base components	
09:15 – 09:45	Glass-ceramic sealants – alchemy or technology ? Qualification methods for a reliable sealing material	S.-M. Gross, FZJ
09:45 – 10:15	Evaluation of nickel oxide powders	F. Tietz, FZJ
10:15 - 10:45	QA in SOFC manufacturing pilot plant	E.Tagliaferri, HTceramix
10:45 – 11:15	Powder characterization	R.-D. Otterstedt, HC Starck
11:15 – 11:30	<i>Session summary</i>	<i>A. Kaiser</i>



	Production 2: Cell manufacture and testing	Chair: B. Rietveld, ECN
	Characterization, control methods, acceptance criteria, acceptance testing of SOFC cells	
11:30 – 12:00	Quality management in cell production	N. Menzler, FZJ J. Ernst, CeramTEC
12:00 – 12:30	Cell technology, cost reduction and quality management	B. Borglum, Versa Power
12:30 – 13:00	Manufacturing SOFCs for the Sulzer Hexis stationary system	C. Voisard, Sulzer Hexis
13:00 – 13:15	<i>Session summary</i>	<i>B. Rietveld</i>

13:30	<i>Lunch</i>	
-------	--------------	--

	Testing 1: Testing and evaluation	Chair: R. Steinberger-Wilckens, FZJ
	Accelerated life testing, performance assessment, lifetime prediction, impedance spectroscopy, radiographic methods	
14:30 – 15:00	Accelerated life testing for SOFC single cells	Markus J. Heneka and E. Ivers-Tiffée, U. Karlsruhe
15:00 – 15:30	Accelerated lifetime cell testing at Risø	R. Barfod, Risø
15:30 – 16:00	Impedance spectroscopy: strengths and limitations	B. Boukamp, U. Twente
16:00 – 16:30	Thermomechanical limitations of planar SOFC stacks	E. Lara-Curzio, ORNL
16:30 – 17:00	Radiographic methods	P. Wyss, EMPA
17:00 – 17:15	<i>Session summary</i>	<i>R. Steinberger-Wilckens</i>

18:30	<i>Dinner</i>	
-------	---------------	--

20:00 – 21:00	Boukamp course “Hands-on experience with EIS” 9 participants with own laptop	Parallel: WP 6 Holtappels meeting + task managers

Thursday, 23 June 2005		
08:00 – 08:15	Organization	H. Nabelek
08:15 – 08:35	SOFC QC/QA from FCtestNet	G. Tsotridis, JRC-IE
08:35 – 08:50	IEC TC105 international fuel cell standards	St. Le Doze, GdF
08:50 – 09:10	Standardization Activity in Japan on Components and Element Materials for SOFC: A Roadmap and Proposed JIS and ISO on Testing Methods for SOFC	Prof Shu Yamaguchi, Tokyo University
09:10 – 09:20	Recent Trends in Fuel Cell Testing Technology	P Agarwal, Fideris Test Solutions, Zuerich
	Application Systems 1: SOFC stacks	Chair: R. Rosenberg, VTT
	Characterization, control methods, acceptance criteria, acceptance testing of SOFC stacks	
09:30 – 10:00	Acceptance testing of Real SOFC stacks	L.G.J. de Haart, FZJ
10:00 – 10:30	Stack development strategy, performance and system operation	B. Borglum, Versa Power
10:30 – 11:00	Stack reliability and durability	N. Christiansen, HTAS
11:00 – 11:30	Manufacturing Scale-Up and Implementation of QA for the Rolls-Royce Fuels IP-SOFC	A. Esquirol, M. Fall, M Jorger, S Pyke, RRFCS
11:30 – 12:00	<i>SOFC stack standardization issues and session summary</i>	<i>R. Rosenberg</i>
12:00	<i>Short Lunch</i>	
	Application Systems 2: System	Chair: Ph. Stevens, EdF
	Characterization, control methods, acceptance criteria, acceptance testing of SOFC systems	
13:00 – 13:30	Integration of a SOFC stack in a diesel operated APU	B.-E. Mai, A. Reinert, We-basto
13:30 – 14:00	Systems interface issues in large SOFC plant	E. Fontell, Wärtsilä
14:00 – 14:30	CAT of SOFC components and systems on AVLs Hardware-in-the-loop test bench	P. Prenninger, E. Ramschak, M. Schuessler, AVL Graz
14:30 – 15:00	Testing criteria for residential SOFC systems	J. Hoffmann, Sulzer Hexis
15:00 – 15:30	<i>Session / Workshop summary</i>	<i>Ph. Stevens / P. Holtappels</i>
15:30	<i>Departure from Einruhr</i>	