



C-XVII: Brazing, Soldering and Diffusion Bonding

Draft Agenda (Update: May 18th, 2025)

78th Annual Assembly 2025, Genoa

XVII-0078-25

Authors: Huaping Xiong

Comments: Face-to-Face Meeting

Agenda for 78th Annual Assembly and International Conference Meeting

Monday June 23rd, 8:30-12:30

Room: Sala-Levante

Session I-1, Chair: [Huaping Xiong](#), [Luckas Wojarski](#)

Time	Agenda Item/Presentation Title (Abstract No.)	Presenter	Document
8:30-8:35	Introduction to each other	Huaping Xiong	
8:35-8:50	Welcome speech and introduction to IIW & Commission XVII	Huaping Xiong	
8:50-9:10	(Invited) TLP brazing using MEA powders with additions of low melting powders	Lukas TU Dortmund University, Germany	XVIIA-0350-25
9:10-9:30	(Invited) Oxidation-resistant multi-principal element alloy brazing fillers for ductility enhancement	Zhenzhen Yu Colorado School of Mines, USA	XVIIA-0351-25
9:30-9:50	(Invited) Borides precipitation and interface characterization of DZ125 joint brazed with high entropy filler alloys	Xinyu Ren Beijing Institute of Aeronautical Materials, China	XVIIA-0352-25
9:50-10:10	Strengthening effect of micro/nano semi-coherent interface on TiAl/Ni based superalloy brazing joint prepared by high-entropy interlayer	Xinyue Li Harbin Institute of Technology, China	XVIIA-0353-25
10:10-10:40	Coffee Break		

Session I-2, Chair: [Yu Zhenzhen](#), [Peng He](#)

Time	Agenda Item/Presentation Title	Presenter	Document
10:40-11:00	(Invited) Laser brazing of metal to alumina ceramic for molten-salt batteries manufacturing	Heloisa Ramlow Swiss Federal Laboratories for Materials Science & Technology, Switzerland	XVIIA-0354-25

11:00-11:20	The effect of Ni and Fe on microstructure evolution and mechanical property of magnetic YIG joint fabricated by $\text{Bi}_2\text{O}_3\text{-B}_2\text{O}_3\text{-NiO-Fe}_2\text{O}_3$ glass-ceramic	Haohua He Harbin Institute of Technology, China	XVIIA-0362-25
11:20-11:40	Interfacial diffusion and strengthening mechanisms of RBSiC joints crazed with Si-Y eutectic filler	Xiaoqian Xue Harbin Institute of Technology, China	XVIIA-0363-25
11:40-12:00	The development of cable lug installation on pipeline by pin brazing for in-service gas pipeline	Khajornkai Kitisiri PTT Public Co., Ltd., Thailand	XVIIA-0364-25
12:00-12:20	Features of TIG braze welding of rod art structures (Pre-video)	Serhii Minakov, E. O. Paton Electric Welding Institute NASU, Ukrainian	XVIIA-0365-25
12:20-12:30	Session Discussion	All	
12:30-14:00	Lunch Break		

Tuesday June 24th, 8:30-12:45, Room: Sala-Levante
Joint meeting of C-VII Microjoining and Nanojoining and
C-XVII on Brazing, Soldering and Diffusion Bonding

Session II-1, Chair: **Huaping Xiong and Jolanta Janczak-Rusch**

Time	Agenda Item/Presentation Title	Presenter	Document
8:30-8:50	Opening of Joint C-VII and C-XVII Meeting Welcome and Introduction to the Commissions	Jolanta Janczak-Rusch and Huaping Xiong	
8:50-9:10	Joining of alumina ceramics with Ti and Zr interlayers by spark plasma sintering	Gurdial Blugan Empa, Swiss Federal Laboratories for Materials Science & Technology, Switzerland	XVIIA-0355-25 VII-0289-25
9:10-9:30	Transient high-temperature brazing of carbon-based materials and study of their structural and functional properties	Yan Yaotian Harbin Institute of Technology	VII-0290-25 XVIIA-0356-25
9:30-9:50	Synchronous improvement of mechanical properties and heat transfer performance of diamond/Cu joint achieved by ultrafast laser surface ablation	Xinfei Zhang, Harbin Institute of Technology, Harbin 150001, China	XVIIA-0357-25 VII-0291-25
9:50-10:10	Evaluation of fracture morphology of Al/Cu joints for development of separation techniques for joining dissimilar materials	Tomo Ogura Osaka University, Japan	VII-0292-25 XVIIA-0358-25
10:15-10:45	Coffee Break		

Session II-2, Chair: Lukas Wojarski, Tomokazu Sano

Time	Agenda Item/Presentation Title	Presenter	Document
10:45-11:05	Brazing of ceramic matrix composite and superalloy assisted with cold spray additive manufacturing	Pengcheng Wang Northwestern Polytechnical University, China	XVIIA-0359-25 VII-0293-25
11:05-11:25	Liquid Metal Electrohydrodynamic High-Precision Printing Technology and Applications	Jiayun Feng Harbin Institute of Technology, China	VII-0294-25 XVIIA-0360-25
11:25-11:45	The research on design of the Ti-based filler for brazing TA32 honeycomb structure and its mechanical properties	Yongjuan Jing Beijing Institute of Aeronautical Materials, China	XVIIA-0361-25 VII-0295-25
11:45-12:00	Visit by Chair of TMB-IIW; CEO of IIW; IIW Secretariat	Xiaoyan Li, Luca Costa and Elisabetta Sciaccaluga	
12:00-12:15	Visit by WITW editor professor	Editor professor	
12:15-12:45	Miscellaneous: Future joint meeting in IIW AA, International Conferences, Intermediate meeting, etc. Discussions and Closing Remarks: submission of documents, paper recommendations to WITW, etc.	Huaping Xiong and Jolanta Janczak-Rusch	
12:45-14:00	Lunch Break		

Tuesday June 24th, 14:00-17:40**Room: Zefiro**Session III-1, Chair: **Peng He, Hong Li**

Time	Agenda Item/Presentation Title (Abstract No.)	Presenter	Document
14:00-14:20	Effect of erosion and grain boundary diffusion on joint strength of thin-walled steel joints brazed with nickel-based filler material	Lukas, TU Dortmund University, Germany	XVIIA-0366-25
14:20-14:40	Structure formation of seams using high-entropic brazing filler metal MnCoNiCu5Ge (Pre-video)	Maksymova S.V, E .O. Paton Electric Welding Institute NASU, Ukraine	XVIIA-0367-25
14:40-15:00	(Invited) Opportunities and challenges for HIP-DB: How hot isostatic pressing diffusion bonding can offer a novel approach to manufacturing	Nick Ludford, The Welding Institute (TWI), U. K.	XVIIIB-0087-25
15:00-15:20	(Invited) Interfacial microstructure and mechanical properties of diffusion bonding between high-entropy alloys TiNbTaZr and Ti150	Wei Guo, Northwestern Polytechnical University, China	XVIIIB-0088-25
15:20-15:40	A new strategy for preparing high-strength DZ40M bonding joints with pre-sintered interlayer	Zhao Yuwei, Harbin Institute of Technology, China	XVIIIB-0090-25
15:40-16:10	Coffee Break		

Session III-2, Chair: **Zhenzhen Yu, Luckas Wojarski, Huaping Xiong**

Time	Agenda Item/Presentation Title	Presenter	Document
16:10-16:30	(Invited) Microstructural and mechanism analysis of diffusion joints between Al-Si and Ti-Ta alloys via hot isostatic pressing	Fugang Lu, Harbin Institute of Technology, China	XVIIIB-0089-25
16:30-16:50	Fabrication of heat exchanger stacks using Inconel 625 alloy by diffusion bonding process	V. Balasubramanian, Centre for Materials Joining & Research (CEMAJOR), Indian	XVIIIB-0091-25
16:50-17:10	High-strength and low-deformation diffusion-bonded 5A06 joints achieved by spark plasma sintering and heat treatment	Rui Xu, Harbin Institute of Technology, China	XVIIIB-0092-25
17:10-17:20	Discussion and election of vice-chair of C-XVII	Huaping Xiong and Luckas Wojarski	
17:20-17:30	Discussions and Closing Remarks Next intermediate meeting of C-XVII, Information of several international conferences, Submission of documents, paper recommendations to WITW, etc	Huaping Xiong and Luckas Wojarski	
17:30-17:40	Farewell to C-XVII	Huaping Xiong	

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Chair: Huaping Xiong, xionghuaping69@sina.cn
Vice-Chair: Lukas Wojarski, lukas.wojarski@tu-dortmund.de
Secretary: Hong Li, lih_bjut@163.com