



Chair: Guisheng Zou
Delegation China

Doc. VII-2015-22
July 19, 2022

COMMISSION VII: MICROJOINING AND NANOJOINING

Agenda for the 75th Annual Assembly and International Conference

Tokyo, Japan, 17-22 July 2022

Program Summary

Time	Meetings	Room
July 19 (Tuesday) 14:00-17:00 JST	C-VII Workshop	Hybrid: ON-SITE (Room: Vendôme) and ON-LINE (Zoom)
July 20 (Wednesday) 14:00-17:00 JST	C-VII & C-XVII Joint Meeting	Hybrid: ON-SITE (Room: Pensée) and ON-LINE (Zoom)
July 21 (Thursday) 8:30-11:30 JST	C-VII Workshop	Hybrid: ON-SITE (Room: Étolie A) and ON-LINE (Zoom)

Note:

14:00-17:00 JST: 13:00-16:00 PM CST; 14:00-17:00 PM KST; 7:00-10:00 AM CEST;
1:00-4:00 AM EST)

8:30-11:30 JST: 7:30-11:30 AM CST; 8:30-11:30 AM KST; 1:30-4:30 AM CEST; 19:30-
22:30 PM, EST)

JST: Japan Standard Time

KST: Korea Standard Time

CST: China Standard Time

CEST: Central European Summer Time

EST: Eastern Standard Time (USA)

Tuesday July 19, 14:00-17:00 PM JST
Hybrid: ON-SITE (Room: Vendôme) and ON-LINE (Zoom)

1. C-VII Annual Workshop

1-1 Opening (14:00-14:15), Guisheng Zou

- Welcome and Introduction to Commission VII
- Approval of the agenda (Doc. VII-2015-22)
- Approval of the minutes of the meeting held online, 22 July 2020 (Doc. VII-0214-22)

1-2 Technical presentations (14:15-17:00)

Session I-1 (Tomokazu Sano)

Reference	Title	Presenter	Time (JST)
VII-0216-22	Soldering of graphite/Cu composite with 6060 Al alloy for electric railway pantographs	Jolanta Janczak-Rusch (Empa, Switzerland) (On-Site)	14:15-14:30
VII-0217-22	Bone-active coatings on plasma-activated magnesium for biocompatible interfaces	Hui Fang (Harbin Institute of Technology, China) (On-Line)	14:30-14:45
VII-0218-22	Nanocomposite solders for highly reliable joints in microelectronic packaging	Sri Harini Rajendran (University of Seoul, Korea) (On-Line)	14:45-15:00
VII-0219-22	Degradation behavior of the Cu joint with high Tg epoxy resin under high temperature and high humidity environment	Xinya Zhao (Gunma University, Japan) (On-Site)	15:00-15:15
VII-0220-22	A Reliable Way to Inhibit Electrochemical Migration of Sintered Silver at High Temperatures	Bowen Zhang (Tiangong University, China) (On-Line)	15:15-15:30
Coffee Break			15:30-16:00

Session I-2 (Susann Hausner)

Reference	Title	Presenter	Time (JST)
VII-0221-22	Thermal storage characteristic of joints using solid-state nanoporous Cu bonding for power device packaging	Byungho Park (Osaka University, Japan) (On-Site)	16:00-16:15
VII-0222-22	Locally Nanowelded Core-shell Nanowires Integrated Multi-gate Transistors for Active Control of Extendable Logic	Yu Xiao (Tsinghua University, China) (On-Line)	16:15-16:30
VII-0223-22	Dynamic nanojoining of metal nanoparticles during ultrafast laser irradiation	Luchan Lin (Shanghai Jiaotong University, China) (On-Line)	16:30-16:45
VII-0224-22	Atomistic assessment of melting point depression and enhanced interfacial diffusion of Cu in AlN/Cu nanomultilayered brazing fillers	Lars Jeurgens (Empa, Switzerland) (On-line)	16:45-17:00



Wednesday July 20, 14:00-17:15 PM JST
Hybrid: ON-SITE (Room: Pensée) and ON-LINE (Zoom)

2. Joint meeting of C-VII and C-XVII on Brazing, Soldering and Diffusion Bonding with Nanomaterials

2-1 Opening (14:00-14:05), Huaping Xiong and Guisheng Zou

- Welcome and Introduction to Commissions XVII and VII
- Review of the past joint meetings of C-XVII and C-VII

2-2 Technical presentations (14:05-16:55)

Session II-1 (Warren Miglietti and Robin Grunert)

Reference	Title	Presenter	Time (JST)
VII-0233-22 XVIIC-0061-22	Properties of Electrically Conductive Adhesives with Polyurethane Modified Epoxy Resin under bending load	Michiya MATSUSHIMA (Osaka University, Japan) (On-Line)	14:05-14:20
VII-0238-22 XVIIA-0228-22	Tensile strengths of ferritic stainless steels brazed with Ni-based brazing foils and their microstructures of brazed joints	Yoshio Bizen (Hitachi Metals, Ltd. Japan) (On-Site)	14:20-14:40
VII-0234-22 XVIIC-0062-22	Microstructure and mechanical properties of Sn-xGa alloys and solder joints	Huizhe Zhang (Beijing Institute of Technology, China) (On-Line)	14:40-14:55
VII-0239-22 XVIIA-0233-22	HEA brazing filler alloys design based on phase formation criteria with computer aided and interface bonding mechanism of active brazed Inconel718/SiC joints	Bojing Li (Beijing University of Technology, China) (On-Line)	14:55-15:10
VII-0235-22 XVIIA-0250-22	Study of the large-area pressureless sintering behavior of micron Ag flake based paste	Jingwen Liu (Sun Yat-sen University, China) (On-Line)	15:10-15:25
Break (15:25-15:40)			

Session II-2 (Guisheng Zou and Susann Hausner)

Reference	Title	Presenter	Time (JST)
VII-0240-22 XVIIA-0235-22	Interfacial microstructure of SiO ₂ /SiO ₂ composites joints brazed by bismuth glass	Junlei Qi (Harbin Institute of Technology, China) (On-Line)	15:40-15:55
VII-0236-22 XVIIC-0063-22	Microstructure evolution of Sn10Sb/Kovar under reflow and ultrasonic treatment	Hao Pan (Harbin Institute of Technology(Shenzhen), China) (On-Line)	16:55-16:10
VII-0241-22 XVIIA-0238-22	Transient liquid phase diffusion bonding of ZrC-SiC composite and 304 steel using Ti/Ni interlayer	Jincheng Lin (Harbin Institute of Technology, China) (On-Line)	16:10-16:25
VII-0237-22 XVIIA-0251-22	Effects of gold surface finish on the performance and reliability of sintered Ag-Au joints	Liting Lin (Tianjin University, china) (On-Line)	16:25-16:40
VII-0242-22 XVIIA-0246-22	Study on the failure mechanism of brazing joint of TiAl alloy	Yongjuan Jing (Beijing Institute of Aeronautical Materials, China) (On-Line)	16:40-16:55
Special presentation	IIW Presentation Welding in the World	Luca Costa (IIW CEO); John Lippold and Majid Farajain (WITW)	16:55-17:10

2-3 Discussions and Closing Remarks (17:10-17:15), Guisheng Zou and Huaping Xiong

- Submission of documents
- Paper recommendations to Welding in the World(WitW), etc



Thursday July 21, 8:30-11:30 AM JST
Hybrid: ON-SITE (Room: Étolie A) and ON-LINE (Zoom)

3. C-VII Annual Workshop

3-1 Technical presentations (8:30-12:30)

Session III-1 (Jolanta Janczak-Rusch)

Reference	Title	Presenter	Time (JST)
VII-0225-22	Low temperature joining of the Ni-based superalloy PWA1483 by Ni nanopaste	Susann Hausner (Technische Universität Chemnitz, Germany) (On-Site)	8:30-8:45
VII-0226-22	Investigation of Ni nanopastes for structural joining	Benjamin Sattler (Technische Universität Chemnitz, Germany) (On-Site)	8:45-9:00
VII-0227-22	Effect of Ag Sintered Bondline Thickness on High Temperature Reliability of SiC Power Devices	Zhongyang Deng (Tsinghua University, China) (On-Line)	9:00-9:15
VII-0228-22	Formation of oxidationless Cu sinter joints using Cu ₂ O-glycol paste	Tomoki Matsuda (Osaka University, Japan) (On-Site)	9:15-9:30
Coffee Break			9:30-9:45

Session III-2 (Lei liu and Jolanta Janczak-Rusch)

Reference	Title	Presenter	Time (JST)
VII-0229-22	Fabrication of high-performance FRID antenna based on electrohydrodynamic printing	Jingxuan Ma (Institute of Technology, China) (On-Line)	9:45-10:00
VII-0230-22	Direct Laser Writing of Thin Film Devices	Peng Peng (University of Waterloo, Canada) (On-Line)	10:00-10:15
VII-0231-22	Inhibiting agglomeration of graphene during the preparation and bonding of GNSs/SAC alloy	Yuan Li (Tianjin University, China) (On-Line)	10:15-10:30
VII-0232-22	Decorating ZnO nanorods with Ag nanoparticles through laser irradiation	Shuo Zheng (University of Waterloo, Canada) (On-Line)	10:30-10:45

3-2 Discussions and Closing Remarks (10:45), Guisheng Zou

- Submission of documents
- Paper recommendations to Welding in the World
- International Conferences on Nanojoining and Microjoining
- Chairs' meeting (after closing remarks)

