

Opening

Session Chairmen: P. He, H. Schmoor

09:00 Opening / Welcome

R. Boecking

General Manager DVS

K. Bobzin

Conference Chairman

H. Schmoor

Chairman of the Brazing and Soldering Society

09:15 Metallurgical alloys and joints probed down to the atomic scale

D. Raabe

10:20 Brazer, Operator and Brazing Coordinator – Increasing demand for qualified specialists

T. Wilhelm

10:40 Transformation/dissolution testing in a grouping and read across approach to determine the environmental classification of alloy brazing pastes

N. Dom*, N. Moelants, H. Krappitz, D. Schnee

11:00 Tabletop Exhibition, Poster Session, Coffee Break

Joining of ceramics, glass and metals I

Session Chairmen: T. Oyama, B. Zigerlig

11:20 Ultrasonic soldering of metals, light metals, glasses and ceramics

I. Rass

11:40 Active soldering of ceramic-ceramic and ceramic-metal compounds for aerospace applications

A. Schmidt*, T. Schubert, T. Weißgärber, B. Kieback, M. Funke, M. Süß, C. Wilhelmi

12:00 Low temperature joining as an alternative process to soldering in thermal applications

T. Baffie*, T. Dessolier

12:20 A preliminary research of microstructure and properties of Li-Ti ferrite joints fabricated by brazing technique with bismuthate glass solder

P. He, P. Lin*, T. Lin, M. Zhao

- 12:40 The effect of Ag-Cu-Ti braze preform thickness on the nano-mechanical properties of alumina-to-alumina brazed joints**
T. Kassam*, N. Ludford, H. Nadendla, U. Hangen
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- 13:00 Tabletop Exhibition, Poster Session, Lunch Break**

Joining of ceramics, glass and metals II

Session Chairmen: J. Janczak-Rusch, P. Batfalsky

- 14:00 Experimental investigations of TiAl-brazes for ceramic joining**
H.-P. Martin*, A. Triebert
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- 14:20 Development of Cu-Al-Ti filler metals for Al_2O_3 /SS brazed joints applied for Na-S batteries cells**
H. Heo*, K. Jung, C. Kang
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- 14:40 Brazing of kovar to alumina and LTCC for integration of ceramic pressure sensors**
J. Schilm*, A. Pönicke, A. Goldberg, U. Partsch, A. Michaelis
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- 15:00 Influence of sandwich brazing filler metal compositions on hardmetal-steel joint stress and strain evolution**
M. Magin*, D. Schnee, M. Schimpfmann, S. Rassbach
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- 15:20 Sealing performance of Ag-CuO brazing filler on porous $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-x}$ applied in an oxygenation membrane module**
S. Herzog*, A. Kaletsch, C. Broeckmann
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- 15:40 Tabletop Exhibition, Poster Session, Coffee Break**

Joining of light weight metals I

Session Chairmen: K. Matsu, R. Sicking

- 16:00 Structure and strength of titanium honeycomb and heat exchanger joints brazed by new amorphous foils**
A. Shapiro*, Y. Flom
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- 16:20 Repair brazing and protection of titanium turbine components using polymer bonded tapes**
S. Uddin*, I. Reinkensmeier, H. Krappitz, J. Barnikel
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- 16:40 Surface pretreatment of steel sheet for compound casting process of low-distortion and low-gap aluminium cast-steel sheet hybrid**
L. Gerdt*, K. Bobzin, M. Öte, S. Wiesner

17:00 Mechanical properties of brazed aluminum / stainless steel mixed joints

V. Fedorov*, M. Elssner, S. Weis, G. Wagner

17:20 Tabletop Exhibition, Poster Session, Coffee Break

Joining of light weight metals II

Session Chairmen: A. Shapiro, M. Türpe

17:40 Material effects on the cathodic arc cleaning in laser-plasma processing of aluminum alloys

T. Radel*, P. Woizeschke, F. Vollertsen

18:00 Brazing of magnesium alloy and austenitic stainless steel using a copper-filler deposited by means of an arc-PVD process

B. Lehmert*, W. Tillmann, L. Wojarski, M. Manka

18:20 Arc-brazing of high-strength steels using copper-based brazing materials

M. Angerhausen*, U. Reisgen, V. Wesling, J. Barthelmie, C. Geffers

18:40 Penetrating and diffusion behavior of eutectic liquid during Mg/steel contact reactive brazing using pure nickel as interlayer

H. Li*, W. Long, H. Nie, S. Zhong, Z. Chen

19:00 Award Presentations

19:15 - 22:00 Welcome Reception

All attendees are invited by DVS to partake in the refreshments.