

**Brazing of / with nickel alloys I**

Session Chairmen: W. Miglietti, I. Reinkensmeier

**08:40 New nickel based brazing alloy suitable for very corrosive environments**

U. Persson\*, N. Bornegård

**09:00 Influence of boron and phosphor containing nickel based brazing alloy on different base materials**

M. Marsilius, T. Hartmann\*

**09:20 Examination of the influencing factors on the microstructure of AISI 304/ BNi-2 joints**

M. Manka\*, W. Tillmann, L. Wojarski, F. Walther, P. Wittke, A. Schmiedt

**09:40 Brazing joint properties of Ni-Cr-Si-P amorphous brazing foils at elevated temperatures**

T. Hartmann\*, M. Marsilius

**10:00 Microstructure and strength properties of austenitic and ferritic stainless steels when brazed with various nickel and iron based amorphous brazing foils**

E. Theisen\*, W. Coughlan, D. Kemmenoe, S. Baker

**10:20 Tabletop Exhibition, Poster Session, Coffee Break**

**Brazing of / with nickel alloys II**

Session Chairmen: M. Boretius, H. Krappitz

**10:40 Microstructure and mechanical properties of Ti<sub>3</sub>Al/Ni-based superalloy joints brazed with AuNi filler metal**

H. Xiong\*, H. Ren, B. Chen

**11:00 Nickel-brazing-pastes in automotive production application examples**

M. Schmitt

**11:20 Multi-scale FEA modeling of braze joints for gas turbine applications**

B. Riggs\*, B. Alexandrov, A. Benatar, R. Xu

**11:40 Brazing of SLM generated nickel base materials for turbine application in the hot gas area**

I. Reinkensmeier\*, S. Piegert

**12:00 Best Poster Award**

**12:10 Lunch Break**

**Development of filler metals**

Session Chairmen: A. Rabinkin, K. Möhwald

**12:40 A modelling approach to the understanding of brazing filler metal compositions**

R. Snell\*, J. Willingham, P. Webb, I. Todd, R. Goodall

**13:00 In-situ synthesis of difficult-to-form brazing filler metals**

W. Long, G. Zhang, Q. Zhang\*

**13:20 Development of copper and nickel based brazing solders with a low brazing and a high re-melting temperature**

M. Schmieding\*, U. Holländer, K. Möhwald, H. Maier

**13:40 Joining of steels at low temperatures by Ni nanoparticles**

S. Hausner\*, S. Weis, G. Wagner

**14:00 A new silver reduced vacuum brazing filler metal with an improved stainless steel wetting behavior for vacuum sealing applications**

G. Wiehl\*, D. Hildebrandt

**14:20 Braze alloy modification using alternative galvanic platings on hardmetal saw tips**

S. Rassbach\*, G. Whiel, M. Magin, M. Schimpfermann

**14:40 Closing Remarks**