



# **11<sup>th</sup> International Congress and Exhibition on Aluminium Brazing 2020**

28 – 29 April, 2020  
Düsseldorf/Germany

# Aluminium

Lieferverzeichnis

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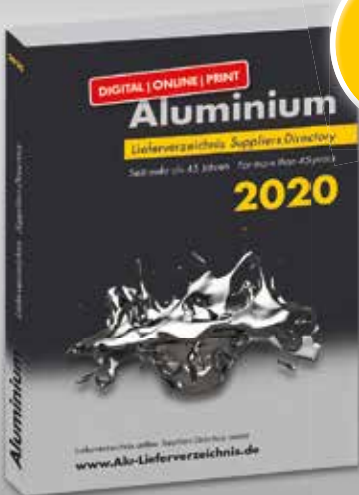
# 2020

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# Aluminium Brazing 2020

The International Aluminium Brazing Congress, organised by the DVS – German Welding Society, will take place from 28 – 29 April, 2020 in Düsseldorf/Germany in the Radisson Blu Scandinavia Hotel.

The conference provides opportunities for establishing and strengthening business relationships, expanding networks and growing confidence in the art of aluminum brazing through expert presentations, technical discussions and exhibits by participating companies.

The organisers are sure to have an interesting offer of lectures held by well recognised speakers and heartily invite you to take part in this significant event.



# Tuesday 28 April, 2020

09:00 Registration

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10:15 **Welcome / Introduction**  
H.-W. Swidersky

## Opening Presentation

Chair: H.-W. Swidersky

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10:30 **Carbon footprint study of aluminium brazing sheet**  
K. Schölin\*, S. Hedevag

## Materials

Chair: H.-W. Swidersky

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11:00 **Heat exchanger materials for E-Mobility**  
N. Eigen, G. Bermig, M. Lentz, M. Mrotzek, V. Sass\*, C. Wiens

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11:30 **In-situ brazing observation of removal behavior of oxide film from Al-Si filler surface by brazing flux**  
T. Suzuki\*, Y. Yanagawa, T. Yamayoshi

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12:00 Lunch and Exhibition

## Equipment

Chair: T. Stenqvist

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13:00 **Skin test helium/hydrogen leak testing by vacuum engineering services / a theoretical analysis of the vacuum technology and related leak detection equipment**  
R. Hodgkinson\*, J. Harman, L. Sansby

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13:30 **SECO/WARWICK Active Only CAB furnace – the smart solution for brazing of diverse aluminum heat exchangers**  
M. Stempniewicz, A. Bielewicz\*

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14:00 Coffee Break and Exhibition

## Applications

Chair: T. Stenqvist

- 14:45**      **Assessment of interactions between post-braze Nocolok flux and engine coolant in the field and means to reproduce in the laboratory**  
M. Ranger\*, Y. Sato, F. Alverson
- 
- 15:15**      **Project study of gel formation in engine coolants – and considerations for the development of further improved coolant compositions**  
A. Rehmer\*, A. Haas\*, J. de Kimpe, S. Lievens, H.-W. Swidersky
- 
- 15:45**      **TRILLIUM® Preforms – an enabler for efficient aluminium HEX manufacturing**  
K. Schölin, S. Borg\*, C. Martin-Callizo
- 
- 16:15**      **Exhibition**
- 
- 18:00 – 22:00**      **Social Event Evening**  
Enjoy a boat trip on the river Rhine to strengthen business relations in an enjoyable and informal atmosphere including a tasteful buffet and some impressions of Düsseldorf.
- 17:30**      **Boarding at Rheinterrasse boats dock “Düsseldorf 1”**
- 18:00**      **Departure**
- 22:00**      **End of the Event**  
Participants should bring casual and waterproof clothes and are required to register (see Registration Form).



# Wednesday 29 April, 2020

## Process & Quality Control

Chair: M. Türpe

**09:30**      **Brazing cycle influence on the brazing joint microstructure and nanohardness – behaviour law of the header-joint tube assembly for thermal shock heat exchanger simulation optimization**  
A. Villemiane\*, L. Pasquet, D. Douksouna, J. Lecomte, E. Fleury, C. Schuman

**10:00**      **Impact of substrate surface features on brazing of microchannel heat exchangers**  
H. Zhao\*, P. Hrnjak, S. Elbel

**10:30**      **Coffee Break and Exhibition**

## Testing & Design

Chair: M. Türpe

**11:00**      **A SWAAT procedure based on time to perforation and its use for studying the effect of metallurgical and process parameters on corrosion resistance of automotive brazing sheets**  
L. Peguet\*, N. Hanane, R. Florian

**11:30**      **Corrosion in brazed heat exchanger materials: Measurement techniques and modelling methods for optimised and application specific material designs**  
F. Ritz\*, B. Jacoby, S. Kirkham, M. Cornejo, C. Bollmann

**12:00**      **Analysis of brazing imperfections by metallographic investigation / optical microscopy**  
H.-W. Swidersky, L. Orman\*

**12:30**      **Lunch and Exhibition**

## Research and Development

Chair: B. Grünenwald

- 13:30**      **Contribution on new results of investigations of aluminium vacuum brazing**  
M. Türpe\*, B. Grünenwald, A. Sommer
- 
- 14:00**      **Recent developments in additive manufacturing of metallic materials**  
S. Jahn\*, S. Matthes, F. Gemse
- 
- 14:30**      **Coffee Break and Exhibition**
- 
- 15:00**      **Influence of copper on alumina detachment during aluminum brazing**  
A. Schmidt\*, K. Bobzin, W. Wietheger, J. Hebing, R. Iskandar, A. Aretz, J. Mayer
- 
- 15:30**      **Brazing of aluminum alloys with high magnesium-content**  
M. Maalekian\*, A. Das, A. Kodentsov, L. Krassenburg, H. Schoonderwaldt, M. Biglari, C. van Veen
- 
- 16:00**      **Closing Remarks**



# Presenting Authors\*, Co-Authors, Chairs

## A

<b>Alverson, Fred</b>	CCI Corporation, Lemont/United States of America
<b>Aretz, Anke</b>	Central Facility for Electron Microscopy, RWTH Aachen University, Aachen/Germany

## B

<b>Bermig, Gerhard</b>	Hydro Aluminium Rolled Products, Hamburg/Germany
<b>Bielewicz, Andrzej*</b>	SECO/WARWICK S.A., Swiebodzin/Poland
<b>Biglari, Mo</b>	Mat-Tech, Son/The Netherlands
<b>Bobzin, Kirsten</b>	Surface Engineering Institute, RWTH Aachen University, Aachen/Germany
<b>Bollmann, Christian</b>	Aleris Rolled Products Germany GmbH, Aachen/Germany
<b>Borg, Simon*</b>	Gränges AB, Finspång/Sweden

## C

<b>Cornejo, Marina</b>	Aleris Rolled Products Germany GmbH, Aachen/Germany
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## D

<b>Das, Arnav</b>	Mat-Tech, Son/The Netherlands
<b>de Kimpe, Jurgen</b>	Arteco, Zwijnaarde/Belgium
<b>Douksouna, Dassidi</b>	Laboratoire d'Etude des Microstructures et de Méca, Metz/France

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<b>Elbel, Stefan</b>	Creative Thermal Solutions Inc., University of Illinois, Urbana/United States of America

## F

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<b>Florian, Raffin</b>	Constellium C-TEC, Voreppe/France



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<b>Grünenwald, Bernd</b>	MAHLE Behr GmbH & Co. KG, Stuttgart/Germany

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<b>Hanane, Noui</b>	Constellium C-TEC, Voreppe/France
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<b>Hedevag, Sofia</b>	Gränges AB, Stockholm/Sweden
<b>Hodgkinson, Richard*</b>	Vacuum Engineering Services, Manchester/ Great Britain
<b>Hrnjak, Pega</b>	Creative Thermal Solutions, Inc./University of Illinois, Urbana/United States of America

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<b>Iskandar, Riza</b>	Central Facility for Electron Microscopy, RWTH Aachen University, Aachen/Germany
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<b>Jahn, Simon*</b>	Günter-Köhler-Institut für Fügetechnik und Werkstoffprüfung GmbH, Jena/Germany

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<b>Krassenburg, Ludo</b>	Mat-Tech, Son/The Netherlands

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<b>Lentz, Martin</b>	Hydro Aluminium Rolled Products, Bonn/Germany
<b>Lievens, Serge</b>	Arteco, Zwijnaarde/Belgium

## M

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<b>Matthes, Sebastian</b>	Günter-Köhler-Institut für Fügetechnik und Werkstoffprüfung GmbH, Jena/Germany
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<b>Mrotzek, Manfred</b>	Hydro Aluminium Rolled Products, Hamburg/Germany

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<b>Orman, Leszek*</b>	Solvay Fluor GmbH, Hannover/Germany
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<b>Pasquet, Laurent</b>	VALEO Thermal System, La Suze sur Sarthe/France
<b>Peguét, Lionel*</b>	Constellium C-TEC, Voreppe/France

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<b>Rehmer, Alexander*</b>	Solvay Fluor GmbH, Hannover/Germany
<b>Ritz, Fabian*</b>	Aleris Rolled Products Germany GmbH, Koblenz/Germany

## S

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<b>Schölin, Kent*</b>	Gränges AB, Finspång/Sweden
<b>Schoonderwaldt, Henk</b>	Mat-Tech, Son/Netherlands
<b>Schuman, Christophe</b>	Laboratoire d'Etude des Microstructures et de Méca, Metz/France

<b>Sommer, Ann-Kathrin</b>	MAHLE Behr GmbH & Co. KG, Stuttgart/Germany
<b>Stempniewicz, Maciej</b>	SECO/WARWICK S.A., Swiebodzin/Poland
<b>Stenqvist, Torkel</b>	Gränges Sweden AB, Finspång/Sweden
<b>Suzuki, Taichi*</b>	UACJ Corporation, Nagoya/Japan
<b>Swidersky, Hans-Walter</b>	Solvay Fluor GmbH, Hannover/Germany

## T

<b>Türpe, Matthias*</b>	MAHLE Behr GmbH & Co. KG, Stuttgart/Germany
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## V

<b>van Veen, Co</b>	Mat-Tech, Son/The Netherlands
<b>Villemitane, Anne-Gaelle*</b>	VALEO Thermal System, Le Mesnil Saint Denis/ France

## W

<b>Wiens, Carina</b>	Hydro Aluminium Rolled Products, Hamburg/ Germany
<b>Wietheger, Wolfgang</b>	Surface Engineering Institute, RWTH Aachen University, Aachen/Germany

## Y

<b>Yamayoshi, Tomoki</b>	UACJ Corporation, Nagoya/Japan
<b>Yanagawa, Yutaka</b>	UACJ Corporation, Nagoya/Japan

## Z

<b>Zhao, Hui*</b>	Creative Thermal Solutions, Inc; University of Illinois, Urbana/ United States of America
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## **Exhibitors** (Status: 11 March 2020)

- Aleris Rolled Products Germany GmbH
- ARUP Alu-Rohr und Profil GmbH, Thermasys Tubing
- E. Krieg GmbH
- Erbslöh Aluminium GmbH
- Gränges Sweden AB
- HE TUBING NETHERLANDS B.V.
- Honeywell Inc.
- Hydro Aluminium Rolled Products GmbH
- Jiangsu Dingsheng New Materials Joint-stock Co.,Ltd
- Schoeler GmbH
- SECO/WARWICK S.A.
- Solvay Fluor GmbH
- Sono-Tek Corporation
- UACJ ELVAL HEAT EXCHANGER MATERIALS GmbH
- Vacuum Engineering Services Ltd.

# Terms and Conditions

## Congress Location

Radisson Blu Scandinavia Hotel  
Karl-Arnold-Platz 5, 40474 Düsseldorf/Germany

## Registration

Send your completed registration form to:

DVS – German Welding Society  
P.O. Box 10 19 65, 40010 Düsseldorf/Germany  
P +49 211 15 91-155  
F +49 211 15 91-300

You can also use the online registration  
[www.dvs-ev.de/aluminium-brazing](http://www.dvs-ev.de/aluminium-brazing)  
**(only possible until 22 April, 2020)**

Contact person:  
Ms Britta Wingartz  
[britta.wingartz@dvs-media.info](mailto:britta.wingartz@dvs-media.info)

## Registration Fee for the Congress (free of VAT)

DVS-Members	EUR 750
Non-Members	EUR 900

The fee includes one Congress Proceeding, Coffe Breaks, Lunch and the Social Evening Event.

## Cancellation

All cancellations must be requested in writing to DVS. An administration fee of EUR 150 will be applied to any cancellation made on or before 14 April, 2020. No refunds will be given for cancellation made after 14 April, 2020.

Of course a substitute can be nominated  
(please contact Ms Britta Wingartz).

# Information

## Payment

Registrants will be sent a confirmation together with an invoice for the registration fee, upon receipt of the completed registration form by DVS.

## Exhibition

Concurrent with the 11<sup>th</sup> International Congress an Exhibition on Aluminium Brazing 2020 will be held. Since the exhibition space is unfortunately very limited we recommend you to book early. The booking will be handled on a first come, first served basis. For more information please look at the registration form.

## Accommodation

Accommodation is available at the congress hotel, Radisson Blu Scandinavia Hotel Düsseldorf. Reservations, cancellations and possible changes should be made directly with the hotel.

**Please send your reservation directly to:  
reservations.duesseldorf@radissonblu.com  
by stating the booking code: Alu Brazing 2020**

Price for single room: EUR 139

Price for double room: EUR 169

(incl. breakfast buffet, pool and fitness room with sauna, free use of WLAN)

## Terms and conditions

- Rate is per night.
- This offer is bookable for 27 – 28 April, 2020.
- The official deadline for reservations is 30 March, 2020.
- This offer is bookable on request and is subject to availability.
- Free cancellation is possible until 72 hours prior to arrival. Late cancellation and no shows will be charged 90%.

## Route Description

Radisson Blu Scandinavia Hotel  
Karl-Arnold-Platz 5  
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Bild: Solvay Fluor GmbH

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## **Simone Weinreich | Brigitte Brommer**

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