

CONGRESS & EXHIBITION

ICAA20 (2026)

International Conference on Aluminium Alloys

13 - 17 Sep 2026

Berlin & online

CHAIRPERSONS



Univ.-Prof. Dr.-Ing. habil. Olaf Keßler
University of Rostock



Prof. Dr.-Ing. Birgit Skrotzki
Bundesanstalt für Materialforschung und -prüfung
(BAM)



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Prof. Dr. Stefan Pogatscher

Montanuniversität Leoben

Program

13 Sep 2026 (Sun)

Foyer/External

Networking opportunity I

6:30 PM General Event Item

Opening of Welcome Reception of ICAA 20

Keßler, O. (Speaker)¹; Skrotzki, B. (Speaker)²
¹University of Rostock (DE); ²Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin (DE)

6:40 PM Networking Opportunity
Welcome Reception

14 Sep 2026 (Mon)

Audimax

General

8:25 AM General Event Item

Opening of First Day of ICAA 20

Keßler, O. (Speaker)¹; Skrotzki, B. (Speaker)²
¹University of Rostock (DE); ²Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin (DE)

Key.1: Keynote Speaker Session 1

Session Chairs: Univ.-Prof. Dr.-Ing. habil. Olaf Keßler (University of Rostock), Prof. Dr.-Ing. Birgit Skrotzki (Bundesanstalt für Materialforschung und -prüfung (BAM))

8:35 AM Keynote Lecture

Reducing the aluminium transformation industry's carbon footprint: priorities, recent progress and current scientific and technological challenges

Warner, T. (Speaker)
Constellium Technology Centre, Voreppe (FR)

Key.2: Keynote Speaker Session 2

Session Chairs: Univ.-Prof. Dr.-Ing. habil. Olaf Keßler (University of Rostock), Prof. Dr.-Ing. Birgit Skrotzki (Bundesanstalt für Materialforschung und -prüfung (BAM))

9:20 AM Keynote Lecture

Crossing the manufacturing spectrum with Al alloys

Easton, M. (Speaker)
RMIT University, Carlton (AU)

A.1: Solid-State and Extrusion-Based Aluminum Additive Manufacturing

Session Chairs: Univ.-Prof. Dr.-Ing. habil. Olaf Keßler ()

10:15 AM Highlight Lecture

Solid State Materials Development of Al alloys via Friction Extrusion for Application in Additive Manufacturing

Klusemann, B. (Speaker)
Helmholtz-Zentrum hereon GmbH, Geesthacht (DE)

10:30 AM Highlight Lecture

Wire-based friction stir additive manufacturing: A solid-state approach for producing high-strength large-scale aluminum alloy components

Donaubauer, S.; Weihe, S.; Werz, M. (Speaker)
University of Stuttgart (DE)

10:45 AM Lecture online

Microstructural Evolution and Self-Healing Properties of Al-7.5Mg Alloy Fabricated by Multi-Layer Friction Surfacing

Toramoto, R. (Speaker)¹; Farag, M.¹; Gheysen, J.²; Pyka, G.¹; Raedemacker, S.¹; Sepúlveda de la Fuente, H.³; Villanova, J.⁴; Khodabakhshi, F.¹; Idrissi, H.¹; Simar, A.¹
¹UC Louvain, Louvain-la-Neuve (BE); ²Ecole Polytechnique Fédérale de Lausanne (CH); ³Université de Liège (BE); ⁴ESRF - The European Synchrotron, Grenoble Cedex 9 (FR)

A.2: Alloy Design for Crack-Resistant LPBF Aluminum

Session Chairs: Prof. Dr.-Ing. Benjamin Klusemann ()

12:00 PM Lecture

Thermodynamic-driven multi-objective alloy design strategy for laser powder bed fusion of Aluminum alloys.

Sonawane, A. (Speaker)¹; Labbe, U.¹; Abrivard, G.²; Gosteau, J.¹; Palm, F.³
¹Airbus SAS, Blagnac (FR); ²Airbus SAS, Nantes (FR); ³Airbus Defence & Space GmbH, Taufkirchen (DE)

12:15 PM Lecture

Novel high-performance Sc-free Al-Mg-Si-Zr alloy for laser powder bed fusion
Grimm, P. (Speaker)¹; Martin, S.¹; Kim, J.²; Han, J.³; Hufenbach, J.K.⁴
¹TU Bergakademie Freiberg (DE); ²Korea Institute of Industrial Technology, Incheon (KR); ³Korea Institute of Industrial Technology, Incheon (KR); ⁴Leibniz Institute for Solid State and Materials Research Dresden (DE)

12:30 PM Lecture

Effect of direct ageing on mechanical properties and microstructure of a novel Al-Cr-Zr-Fe alloy for Laser Powder Bed Fusion.

Ricard, M. (Speaker)¹; Chehab, B.²; De Geuser, F.¹; Martin, G.¹; Mouton, I.¹; Rauch, E.¹

¹Université Grenoble Alpes (FR); ²Constellium Technology Center, Voreppe (FR)

12:45 PM Lecture

Alloy Design of Al-Mn-Ce for Laser Powder Bed Fusion

Gabrysiaik, K. (Speaker); Kühn, U.; Boehm, A.V. Leibniz Institute for Solid State and Materials Research Dresden (DE)

1:00 PM Lecture

Exceptional as-cast strength-ductility in additively manufactured AlSiCuMg alloy
Wang, D. (Speaker); Nagaumi, H.; Zhang, M. Soochow University, Suzhou (CN)

1:15 PM Lecture

Effect of TiC inoculant particle addition on microstructure and mechanical properties of AlSi10Mg alloy fabricated by laser directed energy deposition

Kimura, T. (Speaker); Furukawa, Y.; Nakamoto, T.

Osaka Research Institute of Industrial Science and Technology, Izumi, Osaka (JP)

A.3: Wrought Alloy Processing: Cracking, Oxides, and Modifiers

Session Chairs: *Dr.-Ing. Martin Werz ()*

2:30 PM Lecture online

Additive Manufacturing of Al-Si-Mg-Cu Wrought Aluminium Alloys with Powder Bed Fusion - Laser Beam Assisted by Adding Micron-sized Ti Powders

Zhang, K. (Speaker)¹; Elashery, A.²; Marthinsen, K.²

¹SINTEF, Trondheim (NO); ²NTNU, Trondheim (NO)

2:45 PM Lecture

Nanoparticle-Induced Microstructural Modification and Crack Mitigation in PBF-LB/M of Aluminum Alloy 7075

Dreyer, M. (Speaker)¹; Hengsbach, F.¹; Zhuravlev, E.²; Hoyer, K.-P.¹; Keßler, O.²; Schaper, M.¹

¹Paderborn University (DE); ²Rostock University (DE)

3:00 PM Lecture

Additive manufacturing of TiC nanoparticle-enhanced 7075 alloy

Wang, L. (Speaker)¹; Li, J.²

¹Erich Schmid Institute of Materials Science of the Austrian Academy of Sciences, Leoben (AT); ²Montanuniversität Leoben (AT)

3:15 PM Lecture

Microstructure and Mechanical Properties of Inoculated A7003 Alloy Manufactured by Wire-type Directed Energy Deposition Method

Watanabe, Y. (Speaker)¹; Yamada, M.¹; Mihara-Narita, M.¹; Sato, H.¹; Tanaka, H.²; Suzuki, T.³; Kurita, H.³; Morita, D.⁴

¹Nagoya Institute of Technology (JPN) (JP);

²UACJ Corporation, Nagoya (JP); ³Yamaha Motor Co., Ltd, Iwata (JP); ⁴Mitsubishi Electric Corporation, Amagasaki (JP)

3:30 PM Lecture

Multiscale Characterisation and Thermodynamic Analysis of Oxide Evolution in Inoculated A6061 Aluminum Alloys Produced via L-PBF

Yang, X. (Speaker); Nadendla, H.B. Brunel University London, Uxbridge (GB)

3:45 PM Lecture

Understanding the reactive additive manufacturing process of aluminium alloy A6061-RAM2 by advanced neutron and X-ray methods

Engel, S. (Speaker)¹; Gilles, R.¹; Neumeier, S.²; Rommel, D.³; Schönleber, B.²; Sebold, S.¹

¹Technical University of Munich, Garching (DE);

²Friedrich-Alexander-Universität Erlangen-Nürnberg (DE); ³Colibrium Additive, a GE Aerospace company, Lichtenfels (DE)

A.4: Porosity, Thermal Histories, and Post-Processing in LPBF Al

Session Chairs: *Dr. Jiehua Li ()*

4:30 PM Lecture

Minimizing property gradients in PBF-LB/M of aluminium alloys through tailored thermal management

Tönjes, A. (Speaker); Husemann, L.; Knoop, D. Leibniz Institute for Materials Engineering - IWT, Bremen (DE)

4:45 PM Lecture

In-situ ageing assessment during the manufacturing of a large scale A357 - AlSi7Mg0.6 aerospace component by laser powder bed fusion

Heugue, P. (Speaker)¹; Nugues, P.¹; Caldeira Meulnotte, N.¹; Bergeron, R.²; Ferrage, L.²; Martin, P.²

¹Safran Transmission Systems, Colombes (FR);

²Safran Additive Manufacturing Campus, Le Haillan (FR)

5:00 PM Lecture

Cross-scale Predictive Modeling of Porosity in Additively Manufactured AlSi10Mg Using Machine Learning

Farhat, M. (Speaker); Altmann, M.L.; Tönjes, A. Leibniz Institute for Materials Engineering - IWT, Bremen (DE)

5:15 PM Lecture**In-situ Laser Powder Bed Fusion of an Aluminum-Iron-Zirconium Alloy during Synchrotron Tomography**

Bugelnig, K. (Speaker)¹; Boller, E.²; Chehab, B.³; Lhuissier, P.⁴; Requena, G.¹; Shahani, R.³
¹German Aerospace Center (DLR), Köln (DE);
²ESRF, Grenoble (FR); ³Constellium, Grenoble (FR); ⁴Simap, Grenoble (FR)

5:30 PM Lecture**Effects of Porosity and Bimodal Grain structure on the Deformation of Additively Manufactured Scalmalloy**

Hughes, N. (Speaker); Thomas, R.; Xu, J.; Robson, J.
 The University of Manchester (GB)

5:45 PM Lecture**Microstructure-based assessment of the capability of additively manufactured AlSi10Mg alloy with deep rolling post-treatment**

Srivastav, H. (Speaker)¹; Koch, A.¹; Mrzljak, S.¹; Ott, L.²; Krochmal, M.²; Niendorf, T.²; Walther, F.¹
¹TU Dortmund University (DE); ²Universität Kassel (DE)

Hörsaal A**B.1: 3D Tomography of Intermetallics and Damage in 6xxx Sheets**

Session Chairs: *Prof. Dr. Stefan Pogatscher (Montanuniversität Leoben)*

10:15 AM Lecture**As-cast microstructure characterization using synchrotron X-ray tomography of 5xxx and 6xxx aluminum alloys**

Kang, M. (Speaker)¹; Kammbach, T.²; Garcia-Moreno, F.²; Silva, K.³; Patnaik, S.³; Chawla, N.³; Torres Miranda, A.⁴; Yu, X.¹; Padilha Noronha, F.⁵; Meng, F.⁶; Liang, Z.⁴
¹Novelis, Kennesaw, (US); ²Helmholtz-Zentrum Berlin für Materialien und Energie (DE);
³Purdue University, West Lafayette, (US);
⁴Novelis Switzerland SA, Sierre (CH); ⁵Novelis, Göttingen (DE); ⁶Novelis, Shanghai (CN)

10:30 AM Lecture**3D evaluation of Fe-rich intermetallics in DC-cast 6xxx aluminium alloy billets of varying size and recycled content using X-ray Tomography**

Lazaro-Nebreda, J. (Speaker); Shurkin, P.; Frutos-Myro, E.; Barekar, N.; Sadeghi, F.; Subroto, T.; Barbatti, C.; Scamans, G.; Mendis, C.
 Brunel University London, Uxbridge (GB)

10:45 AM Lecture**Study of the effect of iron-rich intermetallic particles on ductile damage nucleation for two recycled 6xxx aluminium alloys by in-situ nano-tomography**

Vernet, G. (Speaker)¹; Proudhon, H.¹; Gille, M.¹; Pinzon, G.²; Mas, F.³; Morgeneyer, T.F.¹
¹MINES Paris, PSL University, Centre des Matériaux, CNRS UMR 7633, Versailles (FR);
²European Synchrotron Radiation Facility, Grenoble (FR); ³Constellium C-TEC, Voreppe (FR)

11:00 AM Lecture**Linking the evolution of strain and orientation fields with damage pore evolution during high-temperature tensile deformation in Al2050 alloys by synchrotron tomography and scanning 3DXRD**

Fernandes Chaves Macieira, G. (Speaker)¹; Lhuissier, P.²; Salvo, L.²; Fang, H.¹
¹European Synchrotron Radiation Facility (ESRF), Grenoble (FR); ²Université Grenoble Alpes (FR)

11:15 AM Lecture online**Nanotomography Characterization of the Evolution of Intermetallics Distributions during Hot Rolling of a 6xxx Aluminium alloy**

Kammbach, T. (Speaker)¹; Cantergiani, E.²; Marioara, C.³; Neu, T.¹; Kamm, P.¹; Markötter, H.⁴; Pralong, A.²; Liang, Z.²; Garcia-Moreno, F.¹
¹Helmholtz Zentrum Berlin für Materialien und Energie GmbH (DE); ²Novelis Switzerland SA, Sierre (CH); ³Material and Nanotechnology, SINTEF Industry, Trondheim (NO);
⁴Bundesanstalt für Materialforschung und -prüfung, Berlin (DE)

B.2: In Situ and 4D Probing of Deformation, Recrystallization, and Phase Evolution

Session Chairs: *Sigurd Wenner ()*

12:00 PM Lecture online**X-ray tomographic analysis of particle-break-up and void formation in aluminum beverage cans**

Kammbach, T. (Speaker)¹; Mehrens, T.²; Liang, Z.³; Kamm, P.¹; Garcia-Moreno, F.¹
¹Helmholtz-Zentrum Berlin für Materialien und Energie GmbH (DE); ²Novelis Deutschland GmbH, Göttingen (DE); ³Novelis Switzerland SA, Sierre (CH)

12:15 PM Lecture**Multi-modal 4D X-ray characterization of fracture onset in AA3104**

Zhang, Y. (Speaker)¹; Kobayashi, M.²; Fang, H.³; Kantor, I.⁴; Tarantino, G.⁵; Hild, F.⁵; Juul Jensen, D.

¹Technical University of Denmark, Kongens Lyngby (DK); ²Department of Mechanical Engineering, Toyohashi University of Technology, Toyohashi, Aichi 441-8580, Japan (JP); ³European Synchrotron Radiation Facility, Grenoble, France (FR); ⁴DanMAX, Max IV, Lund (SE); ⁵Université Paris-Saclay, CentraleSupélec, ENS Paris-Saclay, CNRS, Laboratoire de Mécanique Paris-Saclay (LMPS), Gif-sur-Yvette, France (FR)

12:30 PM Lecture**In-Situ Synchrotron Characterization of Aluminum Wrought Alloys: Real-time Phase and Dispersoid Evolution during Heat Treatment**

Bodner, S. (Speaker)¹; Brandstetter, F.¹; Miesenberger, B.²; Stark, A.³; Kuss, M.²
¹Montanuniversität Leoben (AT); ²Fried. v. Neuman Gesellschaft m.b.H., Marktl (AT); ³Helmholtz-Zentrum Hereon GmbH, Geesthacht (DE)

12:45 PM Lecture**Phase formation in Al-Fe-Si alloys investigated by in-situ STEM experiments**

Dumitraschkewitz, P. (Speaker); Kremmer, T.; Pogatscher, S.
 Montanuniversität Leoben (AT)

1:00 PM Lecture**In-Situ TEM Heating and Electrical Biasing of Aluminium Thin Films**

Hasenburger, M. (Speaker); Dumitraschkewitz, P.; Kremmer, T.; Daniel, R.; Pogatscher, S.
 Montanuniversität Leoben (AT)

1:15 PM Lecture**In situ EBSD Study of Recrystallization and Texture Evolution in AA2024: Influence of Deformation and Heating Rate**

Theissing, M. (Speaker)¹; Mitsche, S.¹; Shah, V.²; Strobel, K.²; Morak, R.²; Falkinger, G.²; Kothleitner, G.¹
¹Graz University of Technology (AT); ²AMAG rolling GmbH, Ranshofen (AT)

B.3: Vacancies, Clusters, and Early Precipitation in Al-Mg-Si Alloys

Session Chairs: Dr. Phillip Dumitraschkewitz ()

2:30 PM Lecture**“There’s plenty of room at the bottom”—On the magnesium-vacancy interaction in aluminium**

Yang, Z. (Speaker)¹; Banhart, J.¹; Elsayed, M.²; Guo, Q.¹; Lee, J.-Y.¹; Liu, M.³
¹Helmholtz Zentrum Berlin für Materialien und Energie GmbH (DE); ²Martin Luther University Halle (DE); ³Chongqing National Innovation Institute of Light Alloys Co. Ltd. (CN)

2:45 PM Lecture**Solute clustering and early-stage precipitation in Al-Mg-Si alloys**

Li, C. (Speaker)¹; Marioara, C.²; Hatzoglou, C.³; Andersen, S.²; Holmestad, R.³; Li, Y.³
¹Royal Institute of Technology (KTH), Stockholm (SE); ²SINTEF Industry, Trondheim (NO); ³Norwegian University of Science and Technology (NTNU), Trondheim (NO)

3:00 PM Lecture**Computational Approach on Solute Clusters in the Early Aging Stage of 6000 Series Aluminum Alloys**

Egusa, D. (Speaker)¹; Yamaguchi, M.²; Abe, E.¹
¹The University of Tokyo (JP); ²Japan atomic energy agency, Ibaraki (JP)

3:15 PM Lecture**Comparative Analysis of Solute Cluster Stability in Al-Mg-Si Alloys Using APT and Approximate Energy Calculations**

Park, J. (Speaker)¹; Lee, M.¹; Jo, S.-h.²; Kim, J.³
¹Korea Institute of Industrial Technology, University of Science and Technology, Jeonju-si (KR); ²Korea Institute of Industrial Technology, Jeonju-si (KR); ³Korea Institute of Industrial Technology, University of Science and Technology, Korea Institute of Science and Technology, Jeonju-si (KR)

3:30 PM Lecture**Atom Probe Tomography Investigation on the Influence of Cu on Cluster Evolution During Ageing of 6082 Aluminium Alloy**

Mikami, M. (Speaker)¹; Famelton, J.¹; Tzileroglou, C.²; Li, Z.²; Barbatti, C.²; Scamans, G.¹

¹Brunel University London (GB); ²Constellium University Technology Centre, London (GB)

3:45 PM Lecture**Influence of Sn on naturally aged solute clustering**

Famelton, J. (Speaker)¹; Barbatti, C.²; Tzileroglou, C.²
¹Brunel University London (GB); ²Constellium, London (GB)

B.4: Precipitation Pathways in Al-Cu-Mg and Al-Cu-Li Alloys

Session Chairs: Dr.-Ing. Calin Daniel Marioara ()

4:30 PM Lecture**Guinier-Preston-Bagaryatskii Zones in Al-Cu-Mg Alloys: A New Attempt to Uncover the Mystery of their Atomic Structure**

Staab, T.E. (Speaker); Petschke, D.
 University of Würzburg (DE)

4:45 PM Lecture**Anti-aging for metals: Microstructural origins of suppressed secondary natural aging in AA2024**

Cerny, A. (Speaker)¹; Marioara, C.D.²; Eusterholz, M.K.³; Arnoldt, A.R.¹; Hohm, D.¹; Boll, T.³; Zickler, G.A.⁴; Österreicher, J.A.¹
¹AIT Austrian Institute of Technology, Ranshofen (AT); ²SINTEF Industry, Trondheim (NO); ³Institute of Applied Materials (IAM-WK), Karlsruhe (DE); ⁴University of Salzburg (AT)

5:00 PM Lecture**Comparison of direct and indirect methods for complex precipitation characterization of an Al-Cu-Li alloy**

Muller, H. (Speaker)¹; Mouton, I.¹; Deschamps, A.¹; Godin, H.²; Znaj, D.²; De Geuser, F.¹
¹Université Grenoble Alpes (FR); ²Constellium, Voreppe (FR)

5:15 PM Lecture**Vacancies in Aluminium-Alloys and their Interaction with Trace-Elements by Positron Lifetime Spectra — Results of a New Advanced Spectrometer**

Staab, T.E. (Speaker); Boras, D.; Petschke, D. University of Würzburg (DE)

5:30 PM Lecture online**From heterogeneous nucleation to homogeneous spatial distribution of hardening precipitates in cold-rolled AA2024-T3: in situ TEM study**

Irmer, D.¹; Sennour, M.²; Sun, F.³; Vermaut, P.⁴; Moussa, C.⁵; Esin, V. (Speaker)⁶
¹Cetim, Mulhouse (FR); ²Mines Paris, PSL University, Centre des Matériaux, Versailles (FR); ³Chimie ParisTech, PSL University, CNRS, Institut de Recherche de Chimie Paris (FR); ⁴Sorbonne Universités, UPMC University Paris (FR); ⁵Mines Paris, PSL University, Centre de Mise en Forme des Matériaux, Sophia Antipolis (FR); ⁶University of Lorraine, Nancy (FR)

5:45 PM Lecture online**Heterogeneous Nucleation of T1 Phase on Li-Rich Particles in Al-Cu-Li Alloys: An Optimized In-Situ Heating TEM Study**

Chen, L. (Speaker); Liu, C.; Ma, P. Central South University, Changsha (CN)

Hörsaal B**F.1: Localized Corrosion Initiation and Aging-Controlled Microstructures**

Session Chairs: Prof. Dr. Subodh Kumar ()

10:15 AM Lecture**Electrochemical-acoustical characteristics of intermetallic particles during pit initiation in 5083 aluminum alloy**

Wu, K. (Speaker)¹; Shiraiwa, T.²; Enoki, M.³
¹UACJ Corporation, Nagoya (JP); ²The University of Tokyo (JP); ³Tokyo University of Technology (JP)

10:30 AM Lecture**Modulating Precipitation Pathways to Improve Localised Corrosion Behaviour in Al-Cu-Mg Alloys**

Ghosh, R. (Speaker); Hutchinson, C.; Thomas, S. Monash University, Melbourne (AU)

10:45 AM Lecture**Effect of Mg₂(Si,Sn) Anodic Particles in Al-Mg-Sn Alloys on Corrosion Morphologies Under NaCl Solutions**

Kosaba, T. (Speaker)¹; Dannoshita, H.¹; Onaka, K.²; Tada, E.¹
¹Institute of Science Tokyo (JP); ²Kyushu University, Fukuoka (JP)

11:00 AM Lecture**In-Depth Understanding of Localized Pitting in Aluminum Alloys Induced by Strengthening Phases: Microstructural Mechanism and Improvement Strategy**

Wang, R. (Speaker) Soochow University, Suzhou (CN)

F.2: Intergranular Corrosion, Impurities, and Component-Scale Case Studies

Session Chairs: PD Dr.-Ing. habil. Stephanie Lippmann ()

12:00 PM Lecture**Corrosion behaviour of high impurity wrought Al alloys**

Crni, M. (Speaker) Montanuniversität Leoben (AT)

12:15 PM Lecture**The Influence of Silicon and Copper Contents on Intergranular Corrosion Susceptibility of Al-Zn Sacrificial Layer for Automotive HEX Clad Material in Corrosion Solution at High-Temperature**

Sawada, K. (Speaker) UACJ Corporation, Nagoya (JP)

12:30 PM Lecture**Predicting the intergranular corrosion behaviour of 6000 series alloys using machine learning**

Altenbach, C. (Speaker)¹; Montes de Oca Zapiain, D.²; Kopruch, L.³; Katona, R.²; Kurian, R.³; Zander, D.³
¹German Aerospace Center (DLR), Cologne (DE); ²Sandia National Laboratories, Albuquerque, (US); ³RWTH Aachen University (DE)

12:45 PM Lecture**Mechanisms and modeling of the effects of microstructural heterogeneity on the corrosion behavior of FSW joints in 2xxx aluminum alloys**

Shao, M. (Speaker); Chang, X.; Huang, C. Central South University, Changsha (CN)

1:00 PM Lecture

Corrosion Performance of Novelis Automotive skin alloy e170RC

Chen, J. (Speaker)¹; Cornejo, M.²; Liang, Z.²; Wang, Y.¹; Zhou, X.

¹The University of Manchester (GB); ²Novelis Switzerland SA, Sierre (CH)

F.3: Surface Engineering and In Situ Characterization for Corrosion Mitigation

Session Chairs: *Oliver Beyss* ()

2:30 PM Lecture online

Electrochemical and Microstructural Investigation of Corrosion Phenomena in High-Strength Aluminum Alloys

Witt, J. (Speaker); Almalla, A.; Dimper, M.; He, Y.; McKelvie, G.; Ozcan, O.; Skrotzki, B.
<https://www.bam.de/Navigation/DE/Home/home.h...>
Berlin (DE)

2:45 PM Lecture

Enhancing organic coating properties by microstructure control of conversion coatings on A6063 and A3003 Alloys

Banjo, N.¹; Sasaki, T. (Speaker)²; Hono, K.²
¹YKK AP, Kurobe (JP); ²National Institute for Materials Science, Tsukuba (JP)

3:00 PM Lecture

Crystallographic Control of AlO(OH) Film Growth in the Steam Coating Process for Aluminum Alloys

Serizawa, A. (Speaker); Akatani, Y.; Kanno, R.; Kurihara, K.; Suzuki, K.
Shibaura Institute of Technology, Tokyo (JP)

3:15 PM Lecture

Formation of heat-resistant oxide coating via anodizing and thermal treatment of aluminum alloys

Nakajima, D. (Speaker)¹; Murata, T.¹; Nunomura, J.¹; Kyo, Y.¹; Minoda, T.¹; Kikuchi, T.²

¹UACJ Corporation, Aichi (JP); ²Hokkaido University (JP)

3:30 PM Lecture

Barrel Nitriding of Aluminum Plate and Powder Below Melting Point

Okumiyu, M. (Speaker)¹; Kim, S.-g.²; Nambu, K.³; Yoshida, M.⁴

¹Toyota Technological Institute, Nagoya (JP); ²Korea Institute of Industrial Technology, Incheon (KR); ³Osaka Sangyo University, Daito (JP); ⁴Daido University, Nagoya (JP)

3:45 PM Lecture online

Effects of Solute Atom Concentration on the Formation Behavior of Corrosion-Resistant AlO(OH) Films on Aluminum Alloys Using Steam

Kurihara, K. (Speaker); Taneda, Y.; Kanno, R.; Serizawa, A.
Shibaura Institute of Technology, Tokyo (JP)

F.4: Hydrogen Embrittlement Mechanisms and Environmentally Assisted Cracking in Al Alloys

Session Chairs: *Ass.-Prof. Matheus A. Tunes* ()

4:30 PM Lecture

Stress Corrosion Cracking Behaviour of Ultra-High-Strength Al-Zn-Mg Alloys and Its Prevention

Toda, H. (Speaker)¹; Takeda, M.¹; Fujihara, H.¹; Takeuchi, A.²; Uesugi, M.²; Sada, Y.²; Todaka, Y.³; Adachi, N.³; Ishii, Y.³

¹Kyushu University, Fukuoka (JP); ²Spring-8/JASRI, Sayo cho (JP); ³Toyohashi University of Technology (JP)

4:45 PM Lecture

Hydrogen-induced interfacial decohesion of precipitates in Al-Zn-Mg alloys

Shimizu, K. (Speaker)¹; Toda, H.²; Fujihara, H.²; Yamaguchi, M.³; Hirayama, K.⁴; Uesugi, M.⁵; Takeuchi, A.⁵

¹Tottori University (JP); ²Kyushu University, Fukuoka (JP); ³Japan Atomic Energy Agency, Naka-gun (JP); ⁴Kagawa University, Takamatsu (JP); ⁵Japan Synchrotron Radiation Research Institute, Sayo-cho (JP)

5:00 PM Lecture

Understanding Hydrogen Diffusion and Trapping in Overaged 7xxx Series Al Alloys Using a Reliable Electrochemical Hydrogen Permeation Method

Beyss, O. (Speaker)¹; Akuata, C.K.¹; Kopruch, L.²; Zander, D.¹

¹German Aerospace Center (DLR), Köln (DE); ²RWTH Aachen University (DE)

5:15 PM Lecture

Decoupling the Influence of Creep on Initiation of Environmentally Induced Cracking

Williamson, M. (Speaker)¹; Barrett, Z.²; Burnett, T.¹; Byers, N.²; Curd, M.¹; Prangnell, P.¹; Srivastava, J.¹

¹The University of Manchester (GB); ²Airbus UK, Bristol (GB)

5:30 PM Lecture

Hydrogen Behavior in Al-Cu-Mg and Al-Zn-Mg-Cu Alloys Affected by Cold Rolling

ITO, H. (Speaker)¹; HORIKAWA, K.²; KOBAYASHI, J.¹; KURAMOTO, S.¹; WU, Z.¹

¹Ibaraki University, Hitachi (JP); ²The University of Osaka, Toyonaka (JP)

Hörsaal C

G.1: Sheet Forming, Bendability, and Springback

Session Chairs: *Dr. Irmgard Weißensteiner* ()

10:15 AM Lecture

A New Warm Forming Route for AA7075 Aluminium Sheets: From Process Design to Structural Application

Chen, W.-L. (Speaker)¹; Lee, R.-S.²; Korkolis, Y.P.¹

¹TU Dortmund (DE); ²National Cheng Kung University, Tainan (TW)

10:30 AM Lecture**Sheared edge cracking during stamping of 6xxx aluminium autobody sheets**

Olszewska, J. (Speaker)¹; Sellam, Q.²; Daniel, D.¹; Mas, F.¹

¹Constellium Technology Centre, Voreppe (FR);

²Mines Paris - PSL (FR)

10:45 AM Lecture**Effects of Tensile Pre-Strain on the Bendability of Al-Mg-Si Alloy**

Niino, T. (Speaker)

UACJ Corporation, Tokyo (JP)

11:00 AM Lecture**Clarify the influence of solution treatment on the microstructure evolution and bending springback of high-strength Al-Mg-Si-Cu alloys**

Li, Y. (Speaker)

Soochow University (CN)

11:15 AM Lecture**Impacts of Fe and Ni addition on tensile strength and initial elongation properties of A6063 aluminium alloy**

Xing, J. (Speaker); Owada, Y.; Suzuki, K.

Nippon Light Metal Co., Ltd., SHIZUOKA (JP)

G.2: Strain Localization, Heterogeneous Deformation, and Damage Mapping

Session Chairs: *Prof. Joao Quinta da Fonseca* ()

12:00 PM Highlight Lecture**From process to properties: microstructure control in manufacturing thin-walled aluminum alloy parts**

Liu, C. (Speaker)

Central South University, Changsha Shi (CN)

12:15 PM Lecture**The effect of precipitate state on strain localisation in AA7050 alloys**

Chinara, M. (Speaker); Liu, Z.; Thomas, S.; Hutchinson, C.

Monash University, Melbourne (AU)

12:30 PM Lecture**Correlative in situ SEM-DIC and EBSD analysis of strain localization during three-point bending of AA6xxx alloys**

Zrim, F. (Speaker)¹; Falkinger, G.²; Mitsche, S.³; Thum, A.²

¹Graz Centre for Electron Microscopy (AT);

²AMAG rolling GmbH, Ranshofen (AT); ³Graz University of Technology (AT)

12:45 PM Lecture**Linking Deformation Heterogeneity to Substructure Development in Al-0.13Mg**

Zheng, Y. (Speaker); da Fonseca, J.

The University of Manchester (GB)

1:00 PM Lecture**Direct measurement of mechanical response and damage behavior using 3D/4D multi-modal analysis**

Fujihara, H. (Speaker)¹; Toda, H.¹; Hirayama, K.²; Takeuchi, A.³; Uesugi, M.³; Sada, Y.³

¹Kyushu University, Fukuoka (JP); ²Kagawa University, Takamatsu (JP); ³Spring-8/JASRI, Sayo-cho (JP)

1:15 PM Lecture online**In-situ synchrotron XRD line-scan measurement of localized deformation and microstructural evolution in A1200 aluminum**

Inamura, A. (Speaker); Adachi, H.

University of Hyogo, Himeji (JP)

G.3: Precipitation Strengthening and Deformation Interactions

Session Chairs: *Eva Mørtzell* ()

2:30 PM Lecture**Interaction of Clusters and Precipitates with Dynamic Recovery and Strengthening in AA6016 and AA6061**

Krejci, A. (Speaker); Kahlenberg, R.; Wojcik, T.; Kozeschnik, E.

TU Wien (AT)

2:45 PM Lecture**Anisotropic Precipitation Hardening Behavior under External Stress by Oriented Precipitates in Al-Cu-Mg-Ag Alloy**

Jeon, H. (Speaker); Muraishi, S.; Kumai, S.; Dannoshita, H.

Institute of Science Tokyo (JP)

3:00 PM Lecture**Modeling Strain Hardening in Precipitation-Hardened Al-4Cu Alloy Using Dislocation-Density-Based CPFEM**

Dannoshita, H. (Speaker); Muraishi, S.; Kumai, S.

Institute of Science Tokyo (JP)

3:15 PM Lecture**Role of complex heat treatment and deformation schedules on developing strain localisation and interactions between precipitates and dislocations**

Mendis, C.L. (Speaker)¹; Barbetti, C.²; Essien, A.¹; Huang, Y.¹; Li, Z.²

¹Brunel University London, Uxbridge (GB);

²Constellium University Technology Centre, Uxbridge (GB)

3:30 PM Lecture**Microstructure-based Modelling of T1 Phase Strengthening for Enhanced Aluminium Alloy Design**

Hu, J. (Speaker)¹; Guo, Z.¹; Schille, J.-P.¹; Saunders, N.²

¹Sente Software Ltd, Guildford (GB);

²Thermotech Ltd, Guildford (GB)

3:45 PM Lecture**Mechanical training to optimize static and fatigue properties of EN AW-2024 and EN AW-7021 with high secondary material content**

Fliegenger, S. (Speaker); Lombard, K.; Neumann, D.; Preußner, J.; Straub, T.; Strohmeier, U.
Fraunhofer Institute for Mechanics of Materials IWM, Freiburg im Breisgau (DE)

G.4: Impurity Effects and Particle-Controlled Failure in Recycled Wrought Alloys

Session Chairs: Prof. Chunhui Liu (Central South University, CN)

4:30 PM Lecture**Understanding Failure of Recycled AA6111 Through In-situ Measurement and Modelling**

Deng, Y.; Cao, Z.; Yan, K.; Shanthraj, P.; Robson, J. (Speaker)
The University of Manchester (GB)

4:45 PM Lecture**Direct upcycling of mixed ELV scrap into aluminium alloys for structural applications**

Pogatscher, S. (Speaker)
Leoben (AT)

5:00 PM Lecture**Microstructure and Recrystallization Behavior in Extruded 6xxx Aluminum Alloys with Increased Fe Content**

Elashery, A. (Speaker); Kjølmoen, M.; Marthinsen, K.
Norwegian University of Science and Technology, Trondheim (NO)

5:15 PM Lecture**Profilometry-Based Indentation Plastometry for Rapid Mechanical Property Evaluation of 6xxx Aluminium Extruded Profiles With Increased Iron Content**

Frutos-Myro, E. (Speaker)¹; Lazaro-Nebreda, J.¹; Subroto, T.²; Barbatti, C.³; Scamans, G.¹
¹Brunel University London (GB); ²Constellium University Technology Centre, London (GB); ³Constellium Technology Centre (C-TEC), Voreppe (FR)

5:30 PM Lecture**Influence of Strain Rate and Temperature on the Particle Break-Up Behaviour of IMC – Gleeble Approach**

Padiilha Noronha, F. (Speaker)¹; Carsley, J.²; Jurendic, S.¹; Kamp, N.¹; Liang, Z.³; Marclay, V.³; Mehrens, T.¹
¹Novelis, Göttingen (DE); ²Novelis, Kennesaw, (US); ³Novelis, Sierre (CH)

5:45 PM Lecture**Competing bendability-limiting factors in recycling-relevant aluminium sheet alloys: particles, dispersoids, and matrix deformation behaviour**

Weissensteiner, I. (Speaker); Aster, P.; Pogatscher, S.; Samberger, S.; Trink, B.
Montanuniversität Leoben (AT)

Hörsaal D**J.1: Nucleation and Early-Stage Clustering in Aluminum Alloys**

Session Chairs: Dr.-Ing. Benjamin Milkereit ()

10:15 AM Highlight Lecture**Precipitate nucleation in Al alloys**

Hutchinson, C. (Speaker)
Monash University, Parkville (AU)

10:30 AM Highlight Lecture**Interplay of Thermal, Athermal and Geometric Cluster Nucleation During Quenching of Al Alloys**

Li, Y.; Kahlenberg, R.; Retzl, P.; Kozeschnik, E. (Speaker)
Institute of Materials Science and Technology, TU Wien (AT)

10:45 AM Lecture**Influence of excess vacancies on the decomposition kinetics of Al-Zn alloys**

Jean, H. (Speaker)¹; De Geuser, F.¹; Lefebvre, W.²; Mouton, I.¹; Van Landeghem, H.¹
¹Université Grenoble Alpes (FR); ²University of Rouen Normandy (FR)

11:00 AM Lecture**STEM Observations of Solute-Clustering in the Early Stage of Aging AA6022 Aluminum Alloy**

Gonome, K. (Speaker)¹; Nakanishi, H.¹; Egusa, D.²; Abe, E.²
¹UACJ corporation, Nagoya (JP); ²University of Tokyo (JP)

J.2: Quench Sensitivity and Vacancy-Controlled Aging in 6xxx/7xxx Alloys

Session Chairs: Prof. Dr. Ernst Kozeschnik ()

12:00 PM Highlight Lecture**Quench Sensitivity of Al-Zn-Mg Alloys: Characteristic age-hardening and**

precipitation behavior after slow cooling
Mihara-Narita, M. (Speaker)¹; D. Marioara, C.²; Fröck, H.³; Milkereit, B.⁴; Yoshida, H.⁵
¹Nagoya Institute of Technology; ²SINTEF Industry; ³University of Rostock (DE); ⁴Rostock (DE); ⁵ESD Laboratory

12:15 PM Lecture**The influence of grain size on the quench sensitivity of Al alloys**

Milkereit, B. (Speaker)¹; Mihara-Narita, M.²; Marioara, C.D.³; Kahlenberg, R.⁴; Falkinger, G.⁵; Oldenburg, K.⁶; Kessler, O.⁶
¹Rostock (DE); ²Nagoya Institute of Technology (JP); ³SINTEF, Trondheim (NO); ⁴TU Vienna (AT); ⁵AMAG Austria Metall GmbH, Ranshofen (AT); ⁶University of Rostock (DE)

12:30 PM Lecture**Synergistic Improvement of the Paint-bake Response in an AA 6014 Alloy via Enhanced Pre-aging and Sn/Cu Micro-alloying**

Liu, M. (Speaker)¹; Guo, Q.²; Zhao, J.¹; Liu, Z.¹; Qian, F.³; Zhao, H.⁴; Sha, G.⁵; Yang, Z.²; Banhart, J.²; Zhao, P.¹

¹Chinalco Materials Application Research Institute Co., Ltd., Beijing (CN); ²Helmholtz-Zentrum Berlin für Materialien und Energie (DE); ³Beijing Institute of Technology (CN); ⁴Max-Planck-Institut für Eisenforschung, Düsseldorf (DE); ⁵Nanjing University of Science and Technology (CN)

12:45 PM Lecture**Multiscale modelling of solute clustering kinetics under the influence of excess vacancies during natural ageing of Al-Mg-Si alloys**

Wang, X. (Speaker)¹; Li, C.¹; Xu, Y.²; Zhao, D.³; Li, Y.⁴

¹Norwegian University of Science and Technology, Trondheim (NO); ²SINTEF Industry, Trondheim (NO); ³Tianjin University (CN); ⁴Suzhou Lab (CN)

1:00 PM Lecture**Unraveling the kinetics of solute clustering during natural ageing in Al-Mg-Si alloys by a machine learning aided kinetic Monte Carlo simulation**

Wang, X.¹; Li, C.¹; Xu, Y.²; Li, Y. (Speaker)³

¹Norwegian University of Science and Technology, Trondheim (NO); ²SINTEF Industry, Trondheim (NO); ³Suzhou Lab (CN)

1:15 PM Lecture online**Tailoring Precipitate Distribution by Appropriate Heat-Treatment Strategies in Extruded 6xxx Aluminium Alloys**

Höppel, H.W. (Speaker)¹; Ortner, P.¹; Schiffli, A.²
¹Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) (DE); ²Hammerer Aluminium Industries Extrusion GmbH, Ranshofen (AT)

J.3: Thermomechanical Processing and Stress-Assisted Precipitation

Session Chairs: *Mami Mihara-Narita* ()

2:30 PM Lecture**Role of initial microstructure, temperature and strain rate on dynamic precipitation mechanisms in an Al-Zn-Mg-Cu alloy**

Crowin, G.¹; Bouayoune, A.²; Buffière, J.-Y.³; De Geuser, F.¹; Després, A.⁴; Perez, M.³; Deschamps, A. (Speaker)⁴

¹CNRS, Saint Martin d'Hères (FR); ²CNRS, Villeurbanne (FR); ³INSA Lyon, Villeurbanne (FR); ⁴Université Grenoble Alpes, Saint Martin d'Hères (FR)

2:45 PM Lecture**Influence of Mechanical Stress on Precipitation Kinetics and Mechanical Properties during Creep Aging of EN AW-2024 and EN AW-2219 Aluminum Alloys**

Fröck, H. (Speaker)¹; Janoschka, D.²; Kessler, O.¹; Krooß, P.²; Milkereit, B.¹; Niendorf, T.²; Oldenburg, K.¹

¹University of Rostock (DE); ²University of Kassel (DE)

3:00 PM Lecture**Influence of Mechanical Stress during Creep Aging on Monotonic and Cyclic Mechanical Properties of EN AW-2024 and EN AW-2219 Aluminum Alloys**

Janoschka, D. (Speaker)¹; Fröck, H.²; Keßler, O.²; Krooß, P.¹; Milkereit, B.²; Niendorf, T.¹; Oldenburg, K.²

¹University of Kassel (DE); ²University of Rostock (DE)

3:15 PM Lecture**Interaction between Solute Clusters and Deformation in High-Strength Aluminum Alloys**

Fukuda, S. (Speaker)¹; Sasaki, T.²; Ishida, T.¹; Kuramoto, S.³; Itoh, G.³; Kobayashi, E.⁴; Kobayashi, J.³; Ohnuma, M.¹

¹Hokkaido University, Sapporo (JP); ²National Institute for Materials Science, Tsukuba (JP); ³Ibaraki University, Hitachi (JP); ⁴Institute of Science Tokyo (JP)

3:30 PM Lecture**Novel Process Chain for Homogenisation and Extrusion of AlMnMgSi Wrought Aluminium Alloys using the Casting Heat**

Lange, E. (Speaker)¹; Broer, J.²; Milkereit, B.²; Kessler, O.²; Maier, H.J.¹; Klose, C.¹

¹Leibniz University Hannover, Garbsen (DE); ²University of Rostock (DE)

3:45 PM Lecture**Dispersoid Formation in AlMnMgSi Wrought Alloys Using the Cast-Heat for Homogenisation**

Broer, J. (Speaker)¹; Lange, E.F.²; Milkereit, B.¹; Klose, C.²; Maier, H.J.²; Kessler, O.¹

¹University of Rostock (DE); ²Leibniz University Hannover, Garbsen (DE)

J.4: Measuring and Predicting Transformation Kinetics in Aluminum Alloys

Session Chairs: *Prof. Christopher Hutchinson* ()

4:30 PM Highlight Lecture**Atomic scale research on strengthening phase evolution in high-performance aluminum alloys**

Jia, Z. (Speaker)¹; Ding, I.¹; Ning, Y.¹; Xiang, K.²; Yang, Q.²; Liu, W.³

¹Nanjing Tech University (CN); ²Suzhou Laboratory (CN); ³Tsinghua University, Beijing (CN)

4:45 PM Highlight Lecture

Calorimetry without calorimeters: Whole-furnace calorimetry reveals phase transformations in aluminium alloys
Österreicher, J. (Speaker)

AIT Austrian Institute of Technology, Wien (AT)

5:00 PM Lecture

Composition-independent SLP curves exhibiting precipitation-start of β and β' phases in Al-Mg alloys and their application to the prediction of ultra-long-term TTP curves

Shinozaki, T.; Onodera, R.; Ootaki, M.; Hirose, S. (Speaker)
Yokohama National University (JP)

5:15 PM Lecture

Innovative and efficient Methods for Developing Aluminum Alloys via Temperature Gradients

Lippmann, S. (Speaker)
Friedrich Schiller University Jena (DE)

Foyer/External

Breaks

10:05 AM - 10:15 AM

Short Break

11:30 AM - 12:00 PM

Coffee Break

1:30 PM - 2:30 PM

Lunch Break

4:00 PM - 4:30 PM

Coffee Break

15 Sep 2026 (Tue)

Audimax

General

8:25 AM General Event Item

Opening of Second Day of ICA 20

Keßler, O. (Speaker)¹; Skrotzki, B. (Speaker)²
¹University of Rostock (DE); ²Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin (DE)

Key.3: Keynote Speaker Session 3

Session Chairs: *Dr. Chamini L. Mendis* ()

8:30 AM Keynote Lecture

Hardening precipitates in aluminium alloys studied by advanced TEM

Holmestad, R. (Speaker)
Norwegian University of Science and Technology, Trondheim (NO)

Key.4: Keynote Speaker Session 4

Session Chairs: *Prof. Dr. Alexis Deschamps* ()

9:15 AM Keynote Lecture

Artificial Intelligence as a Gateway towards Advanced Metallurgy and Alloy Design

Raabe, D. (Speaker)
Max Planck Institute for Sustainable Materials, Düsseldorf (DE)

E.1: Recycled Aluminum Solidification and Fe Intermetallics

Session Chairs: *Dr.-Ing. Hanka Becker* (Otto von Guericke University Magdeburg)

10:10 AM Lecture

Investigating the solidification of 'dirty' recycled aluminium alloys with X-ray imaging and artificial intelligence

Liotti, E. (Speaker)¹; Aggarwal, A.¹; Yang, S.¹; De Nardi, A.¹; Palazzo, S.¹; Wright, A.¹; Dai, M.¹; Lui, A.¹; Grant, P.¹; Zisserman, A.¹; Arteta, C.¹; Feng, S.²; Wilson, M.³; Richards, S.³; Nicholls, T.³; Banks, D.³; Shearwood, M.³; Zhang, Y.⁴; Hogg, S.⁴

¹University of Oxford (GB); ²University of Sussex (GB); ³STFC, Harwell (GB);

⁴Loughborough University (GB)

10:25 AM Lecture

Thermodynamics-guided design of sustainable secondary Al-Si-Fe-Mn cast alloys for enhanced Fe-impurity tolerance and optimized Mn doping

Mohammed, W. (Speaker); Chen, X.; Ponge, D.; Raabe, D.
Max Planck Institute for Sustainable Materials, Düsseldorf (DE)

10:40 AM Lecture

On the formation of intermetallic precipitates during the solidification of A60XX alloys with higher impurity contents: a phase-field simulation study
Apel, M. (Speaker); Eiken, J.
ACCESS e.V., Aachen (DE)

10:55 AM Lecture

Modification of Al-Fe-Si intermetallic compound nature by trace element additions in recycled 6xxx automotive alloys via high throughput arc casting
Szmuc, P. (Speaker)¹; Dorin, T.¹; Salloum-Abou-Jaoude, G.²

¹Deakin University, Geelong (AU); ²Constellium C-TEC, Voreppe (FR)

E.2: Melt Treatment and Recycled-Alloy Process Robustness

Session Chairs: *Prof. Dr. Stefan Pogatscher* ()

11:40 AM Lecture

Detecting Fe-rich intermetallic phases in secondary aluminum alloys using AI-based segmentation

Wechner, N. (Speaker); Dumitraschkewitz, P.; Samberger, S.; Pogatscher, S.
Montanuniversität Leoben (AT)

11:55 AM Lecture**Dissolution of Intermetallics during Homogenization Treatment of 6xxx Ingots Cast under Various Melt Treatment Conditions and Scrap Content**Lalpoor, M. (Speaker)¹; Fernández-Tornero, E.²; Tøndel, P.A.³¹Aluminium Duffel (BE); ²Alcoa Corporation, Pittsburgh, (US); ³PAT Technical Aluminium Solutions, Mosjøen (NO)**12:10 PM** Lecture**Impact of Elevated Si on Castability and Microstructural Evolution in AA3003 Alloys**Marthinsen, A. (Speaker)¹; Du, Q.¹; Ellingsen, K.¹; Gjerdem, E.²; Rist, S.²; Grätz, K.³; Glöckel, F.⁴¹SINTEF, Oslo (NO); ²Hydro, Sunndalsøra (NO); ³Speira GmbH, Bonn (DE); ⁴Denso Automotive Deutschland GmbH, Eching (DE)**12:25 PM** Lecture**Influence of degassing by porous disperser on the mechanical performance of recycled, cast AlSi10Mg(Cu) alloy**

Pavesi, A. (Speaker); Valota, G.; Bonfanti, A.; Bertasi, F.; Brembo N.V., Stezzano (IT)

12:40 PM Lecture**Effect of 3d-transition metal elements Ti, V, Cr, Mn, Co, Ni, Cu, Zn on microstructure evolution in recycled Fe-containing Al-Si alloys**Becker, H. (Speaker)¹; Gottumukkala, N.S.P.¹; Richter, L.²; Leineweber, A.³¹Otto von Guericke University Magdeburg (DE); ²Institut für Werkstoffwissenschaft, TU Bergakademie Freiberg; ³TU Bergakademie Freiberg**E.3: Grain Refinement and Phase Modification in Al Castings**

Session Chairs: Dr. Ashim Kumar Mukhopadhyay (Hindalco Industries Limited)

2:35 PM Lecture**Can Ti be detrimental for grain refinement?**Joshi, S.S.¹; Eskin, D.G. (Speaker)¹; Du, Q.²; Tveito, K.O.³¹Brunel University London, Uxbridge (GB);²SINTEF, Oslo (NO); ³Norsk Hydro, Oslo (NO)**2:50 PM** Lecture**Influence of Al-Nb-B grain refiner addition on the microstructure of Al alloys**Adole, O. (Speaker)¹; Nadendla, H.B.²¹Brunel University London, Greater London (GB); ²Brunel University London (GB)**3:05 PM** Lecture**Modification mechanism of eutectic Mg₂Si in a non-heat-treatable Al-Mg-Si casting alloy**

Kang, C.-A.; Jeong, S.-J.; Jo, Y.-H.; Cho, Y.-H. (Speaker)

Korea Institute of Materials Science, Changwon (KR)

3:20 PM Lecture**Effect of heat treatment and magnesium content on microstructure and tensile behavior in diecast Al-Si-Mg alloy**Tokunaga, T. (Speaker)¹; Hagihara, K.¹; Hirono, R.¹; Tejima, M.²¹Nagoya Institute of Technology (JPN) (JP);²Toyota Motor Corporation (JP)**3:35 PM** Lecture**Effect of Sr and Al-5Ti-1B on the Microstructure and Mechanical Properties of Novel Compocast Al-7Si-0.35Mg-0.25MWCNT Composite**

Anand, A. (Speaker); Das, P.; Kumar, S. Indian Institute of Science, Bangalore (IN)

3:50 PM Lecture**Precipitation Behavior of Si Phase in Hypoeutectic Al-8 Mass%Si Alloy During Aging Treatment**

Sato, H. (Speaker); Asukabe, S.; Mihara-Narita, M.; Watanabe, Y.

Nagoya Institute of Technology (JPN) (JP)

E.4: Casting Process Innovation and Defect Control**4:45 PM** Lecture**Numerical and experimental investigation of an innovative semi-solid process with vacuum dosing unit to produce high-quality HPDC components**Mester, K. (Speaker)¹; Scampone, G.¹; Harrison, A.²; Hepp, E.³; Hopp, D.⁴; Rafiezadeh, S.¹; Rainer, B.²; Riegler, E.¹; Simson, C.¹¹Light Metals Technologies Ranshofen (AT);²MELTEC Industrieofenbau GmbH, Vorchdorf (AT);³MAGMA Gießereitechnologie GmbH, Aachen (DE);⁴Albert Handtmann Metallgusswerk GmbH & Co. KG, Biberach/Riss (DE)**5:00 PM** Lecture**Physics-Informed Pathway Design for Improving Fillability in Optimized Aluminum Cast Components**Thibault, M. (Speaker)¹; Åkermo, M.²¹Mercedes-Benz AG, Sindelfingen (DE); ²KTH Stockholm (SE)**5:15 PM** Lecture**Three-dimensional characterization of cast defects in cast strips fabricated by vertical-type high-speed twin-roll casting**Endo, Y. (Speaker)¹; Dannoshita, H.¹; Tada, M.¹; Muraishi, S.¹; Kumai, S.¹; Kajimura, S.²; Kubo, T.²; Bekki, Y.²¹Institute of Science Tokyo (JP); ²UACJ Corporation, Aichi (JP)**5:30 PM** Lecture**Advanced Continuous Block Casting of Aluminum Sheet**Hirsch, J. (Speaker)¹; Fischer, M.²; Holtzer-Steiner, M.³; von Czarnowski, P.³¹Aluminium Consulting/Germany, Königswinter (DE); ²SMS group GmbH/Germany; ³Golden Aluminium Denver/USA

6:45 PM Lecture**The ultrasound-assisted casting of large scale Al alloy ingots: Development and application**

Liu, Z. (Speaker)

Central South University, Changsha (CN)

6:00 PM Lecture**Near-contour quenching for improving mechanical performance of complex structural high-pressure die-cast components**Freygang, S. (Speaker)¹; Kohlhepp, M.²;Höppel, H.W.¹¹Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) (DE); ²Audi AG, Neckarsulm (DE)**6:15 PM** Lecture online**Aluminium casting research and development in North America**Luo, A. (Speaker)¹; Soderhjelm, C.²; Zhang, J.¹; Apelian, D.²¹The Ohio State University, Columbus, (US);²University of California, Irvine (US)**Hörsaal A****B.5: Grain-Boundary Chemistry, PFZs, and Corrosion in Recycled Alloys**Session Chairs: *Dr. Sabine Bodner ()***10:10 AM** Lecture**The Effect of Zn Content on Grain Boundary Segregation and Intergranular Corrosion in 6xxx Alloys with Cu impurities.**Korsvold, H.L. (Speaker)¹; Hatzoglou, C.¹;Holmestad, R.¹; Li, Y.¹; Marioara, C.²¹Norwegian University of Science and Technology, Trondheim (NO); ²Sintef Industry, Trondheim (NO)**10:25 AM** Lecture**The Effect of Increased Fe, Cu and Zn on the Microstructure and Properties of Recycling Friendly 6082 and 6005 Aluminium Alloys**Marioara, C.D. (Speaker)¹; Arbo, S.M.²; Du, Q.³; Hatzoglou, C.⁴; Holmestad, J.²; Mørtzell, E.A.⁵; Wenner, S.¹¹SINTEF Industry, Trondheim (NO); ²SINTEF Industry, Raufoss (NO); ³SINTEF Industry, Oslo (NO); ⁴Norwegian University of Science and Technology (NTNU), Trondheim (NO); ⁵Hydro Aluminium R&D, Sunndalsøra (NO)**10:40 AM** Lecture**Intermetallic phases in crossover aluminium alloys identified by EBSD pattern analysis**

Singh, N. (Speaker); Kolbe, M.; Navarrete Argiles, N.; Bugelnig, K.; Kargl, F.; Becker, M. German Aerospace Center (DLR), Köln (DE)

10:55 AM Lecture**Precipitation at grain boundaries and the associated precipitate free zone in Al-Si-Mg-Cu alloys**Poole, W. (Speaker)¹; Britton, B.¹;Ebrahimpourghandi, B.¹; Rometsch, P.²¹University of British Columbia, Vancouver (CA); ²Rio Tinto Aluminium, Saguenay (CA)**B.6: 7xxx Alloy Precipitation: Composition, Interfaces, and Calorimetry**Session Chairs: *Prof. Christopher Hutchinson ()***11:40 AM** Lecture online**Microstructural Observation of the Influence of Zn/Mg Ratio on Precipitation Behaviour and Age Hardening at 393 K in Al-Zn-Mg Alloys**Sanphiboon, W. (Speaker)¹; Ahmed, A.²; Ikeno, S.¹; Lee, S.¹; Matsuda, K.¹; Matsui, H.³; Shibata, K.³; Tsuchiya, T.¹; Yoshida, T.²¹University of Toyama (JP); ²Advance Aluminium International Research Centre, Toyama (JP); ³AISIN Keikinzoku Co.ltd, Toyama (JP)**11:55 AM** Lecture online**Resolving the Structures of Bulk and Grain Boundary Precipitates in Al-Zn-Mg-Cu Aluminium Alloys via 4D-STEM**Chung, T.-F. (Speaker)¹; Chiu, P.-K.²; Hsiao, C.-N.²; Tung, H.-M.³¹National Yang Ming Chiao Tung University, Hsinchu (TW); ²National Institutes of Applied Research, National Center for Instrumentation Research, Hsinchu (TW); ³National Atomic Research Institute, Taoyuan (TW)**12:10 PM** Lecture**Precipitation Evolution during Aging in Al-Zn-Mg Alloys with Cu Addition**

Innab, Y. (Speaker); Chen, H.; Egusa, D.; Abe, E. The University of Tokyo (JP)

12:25 PM Lecture**Influence of initial grain size and work hardening on aging characteristics and kinetics of AA7075**

Bohne, B. (Speaker); Fritsch, S.; Wagner, M.F.-X.

Chemnitz University of Technology (DE)

12:40 PM Lecture**Atomic-scale study on the behaviors of precipitate/matrix interfaces in Al alloys**Zhang, X. (Speaker)¹; Wang, J.²¹China Jiliang University, Hangzhou (CN);²Zhejiang University, Hangzhou (CN)**12:55 PM** Lecture**Effects of Er on the microstructure and properties of Al-Zn-Mg alloys based on 3DAP**

Wu, X. (Speaker)

Beijing University of Technology (CN)

B.7: Solidification and Intermetallic Phase Control

Session Chairs: *Prof. Mark Easton ()*

2:35 PM Lecture

Fast Scanning Calorimetry: Unlocking the Solidification Mysteries of Aluminium Alloys for Additive Manufacturing

Zhuravlev, E. (Speaker)

RoNa Tech GmbH, Rostock (DE)

2:50 PM Lecture

Cerium in Al–5Mg Alloys: Phase Stability, Microstructural Control, and a Novel Sc-Precipitation Pathway

Allahdadi Vasei Abadi, F. (Speaker)¹; Fallah, V.¹; Gallerneault, M.²; Howells, A.²; Moghabeli, F.¹; Pouraliakbar, H.¹

¹Queen's University, Kingston (CA); ²Hazelett, Kingston (CA)

3:05 PM Lecture

Effect of dispersoid forming elements (Mn or Cr) on microstructure and mechanical properties of extruded AA6008

Sadeghi, F. (Speaker)¹; Barekar, N.²; Negrea, R.F.¹; Subroto, T.²; Scamans, G.¹; Barbatti, C.²

¹Brunel University London (GB); ²Constellium, London (GB)

3:20 PM Lecture

Microstructural characterization and thermodynamic calculation of an Al-Fe interface in a novel steel dip-coating material

Decker, P. (Speaker)¹; Köyer, M.²; Bienholz, S.²; Beyer, T.¹

¹TRIMET Aluminium SE, Essen (DE);

²thyssenkrupp Steel, Dortmund (DE)

3:35 PM Lecture

Characterisation of the Microstructure of Ultra-Thin Aluminium Foils Using Advanced EBSD Techniques

Hagström, J. (Speaker)¹; Zhang, Q.²

¹Swerim AB, Stockholm (SE); ²Gränges Finspång AB (SE)

3:50 PM Lecture

Orienta: open-source, GPU-accelerated EBSD indexing of low-symmetry and pseudosymmetric intermetallic phases in aluminium alloys

Samberger, S. (Speaker)¹; Kobayashi, E.²; Pogatscher, S.¹; Weißensteiner, I.³

¹Montanuniversität Leoben (AT); ²Tokyo Institute of Science (JP); ³Montanuniversität Leoben / Christian Doppler Laboratory for Deformation - Precipitation Interactions in Aluminum Alloys (AT)

B.8: Atomic-Scale Precipitate Characterization

Session Chairs: *Prof. Dr. Randi Holmestad ()*

4:45 PM Lecture

High-resolution characterization of corrosion attacks in a field-tested recycled 6082 alloy

Wenner, S. (Speaker)¹; Buvik Gundersen, J.T.²;

Chojak Halseid, M.²

¹SINTEF, Trondheim (NO); ²Hydro Aluminium, Karmøy (NO)

5:00 PM Lecture

On the order–disorder transformation within a main hardening precipitate in Al–Mg–Si alloys

Ding, L. (Speaker); Jia, Z.

Nanjing Tech University (CHN) (CN)

5:15 PM Lecture

A Study of the Cu Effect on β'' and Its Phase Transformation in an Al–Mg–Si–Cu Alloy Using Atomic Resolution STEM and EELS

Wang, S. (Speaker)¹; Cai, Q.²; Wang, Y.³; Li, Z.⁴; Yang, X.³; Kepaptsoglou, D.¹; Ramasse, Q.¹

¹SuperSTEM Laboratory, SciTech Daresbury (GB); ²Chinalco Materials Application Research Institute Co., Ltd, Beijing (CN); ³BCAST, Brunel University London (GB); ⁴Constellium UTC, Brunel University London (GB)

5:30 PM Lecture

Analysis of the early stages of fatigue in conventional 2xxx and Alrware® alloys for aerospace applications

Bellavoine, M. (Speaker)¹; Daniélou, A.¹; Nizery, E.²; Zamboni Ribeiro, S.³

¹Constellium Technology Centre, Voreppe (FR);

²Constellium Issoire (FR); ³Federal University of São Carlos (BR)

Hörsaal B

F.5: Stress Corrosion Cracking Assessment

Session Chairs: *Dr.-Ing. Christoph Altenbach ()*

10:10 AM Lecture online

On the performance of recycled aluminium alloys in hydrogen environments

Silva Fida Carneiro, I. (Speaker)

Montanuniversität Leoben (AT)

10:25 AM Lecture

Interpreting accelerated stress-corrosion cracking test results for modern Al–Zn–Mg–Cu alloys

Horowitz, S. (Speaker); Kelly, R.

University of Virginia, Charlottesville, (US)

10:40 AM Lecture

Stress Corrosion Cracking of 2xxx series alloys exposed to alternate immersion in NaCl solution (ASTM G44): impact of pitting during long duration exposure
Ollat, M. (Speaker); Bordage, R.; Daniélou, A.; Peguet, L.
Constellium Technology Centre, Voreppe (FR)

10:55 AM Lecture

Effect of Ce Microalloying on Microgalvanic Coupling as a Precursor to Stress Corrosion Cracking of Rapidly-Solidified Thin Strip Cast AA5182 Al-Mg Alloy

Jalili, A. (Speaker); Gholamzadeh, H.; Moghabeli, F.; Daub, K.; Persaud, S.; Fallah, V.
Queen's University, Kingston (CA)

M.1: Vibration- and Friction-Assisted Forming of Aluminum Alloys

Session Chairs: *Prof. Dr.-Ing. Jürgen Hirsch*
(Aluminium Consulting Königswinter)

11:40 AM Lecture

Impact of Ultrasonic Die Sonication on Microstructure and Mechanical Properties in Aluminum Hollow Profile Extrusion

Thomas, T. (Speaker)¹; Negendank, M.²; Längst, N.³; Merklinger, V.¹; Maier, J.⁴; Müller, S.⁵

¹HTWG Konstanz – University of Applied Science (DE); ²FORMING GmbH, Berlin (DE);

³Augsburg University of Applied Sciences (DE); ⁴WEFA Singen GmbH (DE); ⁵TU Berlin (DE)

11:55 AM Lecture

Effect of Process Parameters on Deformation Mechanism and Microstructure Evolution during Friction Extrusion of AA7075

Suhuddin, U. (Speaker); Rath, L.; Klusemann, B.
Helmholtz-Zentrum hereon GmbH, Geesthacht (DE)

12:10 PM Lecture

Vibration-Assisted Incremental Cold Forming of AA7075 Sheet

Quinta da Fonseca, J. (Speaker)¹; Bowker, G.¹; Engel, S.¹; Long, H.²; Ouyiang, A.²; Zeng, X.¹; Zhu, H.³

¹The University of Manchester (GB);

²University of Sheffield (GB); ³University of Strathclyde, Glasgow (GB)

12:25 PM Lecture

Recrystallization Behaviour of Plane Strain Compressed Ce-Modified AA5182

Anabaranze, Y. (Speaker); Diak, B.
Queen's University, Kingston (CA)

A.5: Microstructure Engineering and Composite Reinforcement in Al AM

Session Chairs: *Dr.-Ing. Anastasiya Tönjes* ()

2:35 PM Lecture

Influence of Alloying Elements on Microstructural Evolution and Strengthening in LPBF-Processed Aluminium Alloys

Keerti, S. (Speaker)
Brunel University London (GB)

2:50 PM Lecture

Stress/strain partitioning in bi-modal microstructures of Zr/Ti strengthened additively manufactured aluminium alloys

Basu, S. (Speaker); Stockmar, J.; Brasche, F.; Haase, C.
Technische Universität Berlin (DE)

3:05 PM Lecture

Moiré-based HAADF-STEM quantification of Al₃(Sc,Zr) precipitates lattice rotation after Additive Friction Stir Deposition of Al-Mg-Sc-Zr alloys

Dorin, T. (Speaker)¹; Barnett, M.¹; Lefebvre, W.²; Sauvage, X.²
¹Deakin University, Geelong (AU); ²University of Rouen Normandy (FR)

3:20 PM Lecture

Strength-ductility synergy in (TiZrHfNbTa)C-reinforced AlSi10Mg composites produced by selective laser melting

Yan, X. (Speaker)
Xi'an Jiaotong University (CN)

3:35 PM Lecture

In situ formation of titanium aluminides during Directed Energy Deposition of an aluminium alloy on a pure titanium substrate

Popov, V. (Speaker)¹; Coriat, O.²; Bishara, H.²
¹Ariel University (IL); ²Tel Aviv University (IL)

A.6: Self-Healing and Circularity in Aluminum Additive Manufacturing

Session Chairs: *Prof. Mark Easton* (RMIT University)

4:45 PM Highlight Lecture

Recycling Al-Ce based powders for re-additive manufacturing

Li, J. (Speaker)¹; Wang, L.²
¹Montanuniversität Leoben (AT); ²Northeastern University Shenyang

5:00 PM Lecture

Additive Manufacturing and Microstructural Characterisation of Recycled Crossover Aluminium Alloys

Singh, N. (Speaker)¹; Becker, M.¹; Navarrete Argiles, N.¹; Kolbe, M.¹; Bugelnig, K.¹; Kargl, F.¹; Lhuissier, P.²

¹German Aerospace Center (DLR), Cologne (DE); ²Universite Grenoble Alpes (FR)

5:15 PM Lecture

Designing Microstructures of Self-Healing Aluminium Alloys Fabricated via In-Situ Alloying in Additive Manufacturing

Poletti, M.C. (Speaker)¹; Eichlseder, M.¹; Garcia Arango, N.²; Leon, E.³; Letofsky-Papst, I.¹; Nzengu, P.¹; Povoden-Karadeniz, E.²; Terrazas Monje, T.¹; Wiebogen, A.¹

¹Graz University of Technology (AT); ²TU Wien, Vienna (AT); ³Bordeaux Institute of Technology (FR)

5:30 PM Lecture

Damage Evolution during Creep and Self-Healing in Aluminium Alloys

Nzengu, P. (Speaker); Terrazas Monje, T.; Wiebogen, A.; Poletti, M.C.

Graz University of Technology (AT)

5:45 PM Lecture online

Strength-healability trade-off in L-PBF additively manufactured Al-Mg alloys: Effect of Zr addition

De Raedemacker, S.¹; Gheysen, J.²; Hannard, F.³; Villanova, J.⁴; Mottay, W. (Speaker)⁵; Tingaud, D.⁶; Winarski, B.⁷; Ahmadi, M.¹; Farag, M.¹; Idrissi, H.¹; Hoummada, K.⁵; Attallah, M.M.⁸; Simar, A.¹

¹Université Catholique de Louvain, Louvain-La-Neuve (BE); ²Ecole Polytechnique Fédérale de Lausanne (CH); ³Independent researcher, Bruxelles (BE); ⁴ESRF - The European Synchrotron, Grenoble (FR); ⁵Aix-Marseille University (FR); ⁶Université Sorbonne Paris Nord, Villetaneuse (FR); ⁷Thermo Fischer Scientific, Brno (CZ); ⁸Loughborough University (UK)

Hörsaal C

G.5: Extrusion Texture, Bend Performance, and Structural Integrity

Session Chairs: Prof. Knut Marthinsen (NTNU Trondheim)

10:10 AM Lecture

The effect of texture on mechanical properties in recrystallized 6xxx extrusion alloys

Mørtsell, E. (Speaker)¹; Bergene, E.²; Kogut, A.³; Konow, I.²; Marioara, C.D.⁴; Mørretø, J.¹; Dudziński, M.³; Szczerba, M.³; Kopacz, S.⁵; Holmestad, R.²; Røyset, J.¹; Tundal, U.H.¹

¹Hydro Aluminium AS, Sunndalsøra (NO); ²NTNU, Trondheim (NO); ³IMIM Krakow (PL); ⁴SINTEF, Trondheim (NO); ⁵Hydro Aluminium AS, Krakow (PL)

10:25 AM Lecture

Hybrid Experimental-Numerical Characterization and Crashworthiness Assessment of Aluminium Extrusions

Sisodia, D. (Speaker)¹; Gahlyan, S.¹; Prachi, A.²; Wagle, G.¹

¹Hindalco Industries Limited, Navi Mumbai (IN);

²Hindalco Industries Limited, Pune (IN)

10:40 AM Lecture

Edgewise 90 degrees compression bending of aluminum strip with press machine

Hasegawa, O. (Speaker)¹; Hasegawa, Y.²; OMORI, A.²; Shioda, M.³; Takahashi, S.⁴
¹Tokyo Metropolitan College of Industrial Technology (JP); ²Nippon Light Metal Co., Ltd., Tokyo (JP); ³UI Electronics Industry Co., Ltd., Yamanashi (JP); ⁴Nihon University, Chiba (JP)

10:55 AM Lecture

5xxx alloys with 10 % Mg: Linking processing-property relationships

Aster, P.¹; Weidinger, A.¹; Samberger, S.¹; Daniel, S. (Speaker)¹; Schmid, F.²; Pogatscher, S.¹; Weißensteiner, I.¹

¹Montanuniversität Leoben (AT); ²AMAG Rolling GmbH, Ranshofen (AT)

G.6: Multiaxial Deformation, Fatigue, and Thermomechanical Response

Session Chairs: Prof. Dr. Angelika Brückner-Foitt (/)

11:40 AM Lecture

Finite Element-Assisted Design of a Thermomechanical Fatigue Test Specimen for Lifetime Assessment of Brazed Aluminum Heat Exchangers

Alidousti Shahraki, A. (Speaker); Gleichner, J.; Giese, A.; Umbach, S.; Brückner-Foitt, A.; Rienäcker, A.
University of Kassel (DE)

11:55 AM Lecture

Influence of the load history on the stiffness of EN AW-6063 T6

Wagener, R. (Speaker)
Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt (DE)

12:10 PM Lecture

Aged structure and fatigue crack initiation in 2024-equivalent aluminum alloy.

Nakagawa, K. (Speaker)¹; Matsuura, H.¹; Nakai, K.¹; Itoh, G.²

¹Okayama University of Science (JP); ²Ibaragi University, Mito (JP)

12:25 PM Lecture

Development of a forming method for helical inner-grooved aluminum tubes using a combined drawing-twisting process

Yoshino, M. (Speaker)¹; Fukumasu, H.¹; Nakamoto, M.¹; Suzuki, T.¹; Takizawa, H.²
¹MA Aluminum Corporation, Susono (JP); ²Nippon Institute of Technology, Miyashiro (JP)

12:40 PM Lecture

Effect of impurities on mechanical properties and microstructure of recycled Al alloys processed by severe plastic deformation under high pressure

Tang, Y. (Speaker)
Shimane University, Matsue (JP)

12:55 PM Lecture

Effect of electroless Ni-P plating on fatigue strength of 7075 aluminum alloy
Hino, M. (Speaker)¹; Asada, A.¹; Odawara, K.¹; Kuwano, R.¹; Kurosaka, S.²; Okubo, H.²; Tasaka, R.²; Horikawa, K.³
¹Hiroshima Institute of Technology, Hiroshima-shi (JP); ²C.Uyemura & Co., Ltd., Hirakata-shi (JP); ³The University of Osaka, Osaka-shi (JP)

G.7: Process, Texture, and Ageing Pathways in Wrought Products

Session Chairs: *Prof. Dr. Bjørn Holmedal ()*

2:35 PM Lecture

Crystallographic Texture Development under Tensile Loading in a Moderately Rolled and Annealed Al-Mg Alloy Produced by Rapid Solidification via Continuous Thin-Strip Casting

Pouraliakbar, H. (Speaker)¹; Jandaghi, M.R.²; Gallerneault, M.¹; Howells, A.³; Moverare, J.²; Fallah, V.¹

¹Queen's University, Kingston (CA); ²Linköping University (SE); ³Hazelett-CAS Technology, Kingston (CA)

2:50 PM Lecture

Thermo-Mechanical Simulation of Microstructure and Texture Evolution in Flat-Strip Aluminium Extrusion
Gunasekaran, S.S. (Speaker)¹; Tzileroglou, C.²; Bagherpour, E.¹; Barbatti, C.²; Mendis, C.¹
¹Brunel University London (GB); ²Constellium University Technology Centre, London (GB)

3:05 PM Lecture

Effect of Pre-Ageing and Natural Ageing Treatment on Mechanical Properties of an Al-Mg-Si Alloy

Gahlyan, S. (Speaker)¹; Saxena, M.²
¹Hindalco Industries Limited, Navi Mumbai (IN); ²Hindalco Industries Limited, Renukoot (IN)

3:20 PM Lecture

Effect of Natural Aging, Artificial Aging and Process Control on Properties of AA6201 Drawn Aluminium Wires
Khot, S. (Speaker); Gahlyan, S.; Warange, R.
Hindalco Industries Limited, Mumbai (IN)

3:35 PM Lecture

Effect of the Strain Field Caused by Different Precipitates' Crystal Structure on the Electrical Conductivity of AA6063 Al Alloy
Qin, J. (Speaker)
Weiqiao Lightweight Research Center at Soochow (CN)

G.8: Thermal Stability, Interfaces, and Strengthening Phases

Session Chairs: *Prof. Dr. Zhihong Jia ()*

4:45 PM Lecture

Processing-Controlled Strengthening in Rolled AA5083 and Extruded AA5454 Alloys with Low Sc Additions
Chen, X.-G. (Speaker)
University of Quebec at Chicoutimi (CA)

5:00 PM Lecture

Thermal Resilience and Recrystallization Behavior in a Ultrafine-Grained Al-Mg-Si Alloy for Space Applications
Theissing, M. (Speaker)¹; Gonzaga, S.²; Willenhofer, P.²; Kremmer, T.²; Mitsche, S.¹; Pogatscher, S.²; Sene, F.F.³; Tunes, M.A.²
¹Graz University of Technology (AT); ²Montanuniversität Leoben (AT); ³Brazilian Air Force, São Paulo (BR)

Hörsaal D

N.1: Automotive Aluminum: Lightweighting and Circularity

Session Chairs: *Mark Gallerneault ()*

10:10 AM Lecture

Overview of David J. Lloyd's Career and Contributions
Gallerneault, M. (Speaker)¹; Poole, W. (Speaker)²; Wells, M. (Speaker)³
¹Queen's University, Kingston (CA); ²University of British Columbia, Vancouver (CA); ³University of Waterloo (CA)

10:25 AM Lecture

Aluminium for modern light-weight car design
Hirsch, J. (Speaker)
Aluminium Consulting Königswinter (DE)

10:40 AM Lecture

Research activities of D.J. Lloyd on aluminum sustainability in the first decade of this century
Jin, H. (Speaker)
Natural Resources Canada, Hamilton (CA)

N.2: Formability, Texture, and Microstructural Heterogeneity

Session Chairs: *Mary Wells ()*

11:40 AM Lecture online

Predicting Precipitate Free Zone Formation in AA6XXX Alloys
Sinclair, C. (Speaker)
University of British Columbia, Vancouver (CA)

11:55 AM Lecture

Application of Self-Consistent Modeling to the Deformation in Heterogeneous Alloys
Wilkinson, D. (Speaker)¹; Kang, J.²; Siemens, C.¹
¹McMaster University, Hamilton, ON (CA); ²Canmet MATERIALS, Hamilton, ON (CA)

12:10 PM Lecture

Comparison of local and macroscopic necking and failure parameters to evaluate the effect of impurity level on formability in a 6000 series Aluminium alloy

Guérin, P.¹; Mas, F.²; Lhuissier, P.³; De Geuser, F.³; Deschamps, A. (Speaker)¹

¹Université Grenoble Alpes, Saint Martin d'Hères (FR); ²Constellium technology center, Voreppe (FR); ³CNRS, Saint Martin d'Hères (FR)

12:25 PM Lecture

Dr. DJ Lloyd: Intermetallic Particles in 5xxx Alloy Sheet

Sanders, R. (Speaker)

Chongqing University, Chapin, (US)

12:40 PM Lecture

Possible Role of Sessile Jogs and Stroh-Hirth Locks in Cube Textured FCC Metals on Plane Strain Necking in Sheet Forming

Saimoto, S.; Diak, B. (Speaker)

Queen's University, Kingston (CA)

12:55 PM Lecture

The influence of texture gradients on the deformation of aluminum extrusions

Poole, W. (Speaker)¹; Wang, Y.²; Zang, A.³; Wells, M.²; Parson, N.⁴

¹University of British Columbia, Vancouver (CA); ²University of Waterloo (CA); ³University of California, Irvine, Los Angeles, (US); ⁴Rio Tinto Aluminium, Saguenay (CA)

J.5: Aging Pathways, Diffusion Mechanisms, and Phase Nomenclature

Session Chairs: *Dr.-Ing. Calin Daniel Marioara ()*

2:35 PM Lecture

Underlying Mechanisms of Initial Hardening in Al-Zn-Mg Alloy after Furnace Cooling

Homma, T. (Speaker)¹; Matsuzaki, T.¹; Sasaki, T.²; Ii, S.²; Ohishi, K.³; Suzuki, J.-i.³; Ohnuma, M.⁴

¹Nagaoka University of Technology (JP);

²National Institute for Materials Science, Tsukuba (JP); ³Comprehensive Research Organization for Science and Society, Naka (JP); ⁴Hokkaido University, Sapporo (JP)

2:50 PM Lecture

Microstructure Observation of Two- step Aged Al-Mg-Ge Alloys

Lee, S. (Speaker); Ahmed, A.; Ikeno, S.; Ishiguro, Y.; Matsuda, K.; Tsuchiya, T. University of Toyama (JP)

3:05 PM Lecture

Evolution of precipitate during isothermal aging in an Al-Mg-Si alloy

Takata, K. (Speaker)¹; Saito, G.²; Muto, S.²; Okajima, T.³

¹Daido Institute of Technology, Nagoya (JP);

²Nagoya University (JP); ³Aichi Synchrotron Radiation Center, Seto (JP)

3:20 PM Lecture

Clustering and two-step aging behavior in Al-Mg-Si alloys

Kim, J. (Speaker); Lee, M.; Park, J. Korea Institute of Industrial Technology, Jeonju (KR)

3:35 PM Lecture with Panel Discussion

Towards a Community Agreed Standard for Phase Nomenclature in Aluminium Alloys

Marioara, C.D.¹; Ding, L.²; Lee, S.³; Chung, T.-F.⁴; Milkereit, B.⁵; Kessler, O.⁶; Holmestad, R. (Speaker)⁷

¹SINTEF Industry, Trondheim (NO); ²Key Laboratory for Light-weight Materials, Nanjing Tech University, China (CN); ³Graduate School of Science and Engineering for Research, University of Toyama, Japan (JP); ⁴Department of Materials Science and Engineering, National Yang Ming Chiao Tung University, Hsinchu (TW); ⁵Chair of Materials Science, University of Rostock (DE); ⁶Chair of Materials Science, University of Rostock, Germany (DE); ⁷Norwegian University of Science and Technology, Trondheim (NO)

J.6: Intermetallics, Dispersoids, and High-Temperature Precipitation Design

Session Chairs: *Dr.-Ing. Benjamin Milkereit (University of Rostock)*

4:45 PM Highlight Lecture

Options for microstructural design of intermetallic phases in Fe-containing secondary Al-Si alloys

Becker, H. (Speaker)

Otto von Guericke University Magdeburg (DE)

5:00 PM Lecture

Effect of Homogenisation and Foil Rolling Process Parameters on Intermetallic Particle Size, Morphology, and Phase Evolution in AA8079 Alloy

Khot, S. (Speaker); Dutta, S.; Guvvala, S.; Jayaswal, P.; Warange, R.

Hindalco Industries Limited, Mumbai (IN)

5:15 PM Lecture

Corrosion resistance improvement via enhanced dispersoid precipitation by adding Si in a 5xxx Al-Mg-Mn alloy

Li, Z. (Speaker)

Weiqiao Lightweight Research Center at Soochow, Suzhou (CN)

5:30 PM Lecture

Interactions between manganese and chromium dispersoid-forming elements on their addition in aluminum alloys

Dong, Q. (Speaker)¹; Nagaumi, H.¹; Zhang, B.²

¹Soochow University, Suzhou (CN); ²Shandong Weiqiao Aluminum & Electricity Co, Ltd, Binzhou (CN)

5:45 PM Lecture

STEPWISE AGEING of an Al-Mn-Cu ALLOY WITH ICOSAHERAL and L12 PRECIPITATES

Zupanec, F. (Speaker)¹; Hočurščak, L.¹; Lammer, J.²; Burja, J.³; Bončina, T.¹
¹University of Maribor (SI); ²Graz Centre for Electron Microscopy (AT); ³Institute of Metals & Technology, Ljubljana (SI)

6:00 PM Lecture

Characterization of T-Phase Morphology in Al-Zn-Mg Alloy with Low Zn/Mg Ratio

Ahmed, A. (Speaker); Tsuchiya, T.; Lee, S.; Ikeno, S.; Kenji, M.
University of Toyama (JP)

Foyer/External

Breaks

10:00 AM - 10:10 AM

Short Break

11:10 AM - 11:40 AM

Coffee Break

1:10 PM - 2:35 PM

Poster Sessions & Lunch Break

4:05 PM General Event Item

Group Picture

4:15 PM - 4:45 PM

Coffee Break

Networking opportunity II

6:30 PM Networking Opportunity

Women's evening

16 Sep 2026 (Wed)

Audimax

General

8:25 AM General Event Item

Opening of Third Day of ICAA 20

Keßler, O. (Speaker)¹; Skrotzki, B. (Speaker)²
¹University of Rostock (DE); ²Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin (DE)

Key.5: Keynote Speaker Session 5

Session Chairs: Mary Wells ()

8:30 AM Keynote Lecture

Technological and regulatory challenges for the aluminium recycling industry

Fragner, W. (Speaker)
AMAG Austria Metall AG, Ranshofen (AT)

Key.6: Keynote Speaker Session 6

Session Chairs: Prof. Dr.-Ing. Shinji Kumai ()

9:15 AM Keynote Lecture

Aluminium Action Plan

Marino, M. (Speaker)
European Aluminium, Brussels (BE)

E.5: Semisolid Processing and Metal-Matrix Composites

Session Chairs: PD Dr.-Ing. habil. Stephanie Lippmann ()

10:10 AM Lecture

Numerical modelling of multiphase-multiscale semisolid solidification with nanoparticle assisted and shear driven microstructure evolution in Al-7Si-MWCNT slurries

Sahoo, S.K.; Das, P. (Speaker)
Indian Institute of Science, Bangalore (IN)

10:25 AM Lecture

Influence of Lithium Addition on Microstructural Evolution, Mechanical Properties, and Heat Treatment Response of Low-Superheat Cast Novel In-Situ Al-15Mg2Si-4.5Si Composite

Mustofa, M.K. (Speaker); Das, P.
Indian Institute of Science, Bangalore (IN)

10:40 AM Lecture

Microstructural Evaluation of W-Dispersed Aluminum Alloys Solidified via Levitation Melting

Horikawa, K. (Speaker)¹; Koyama, C.²; Yukimatsu, K.²; Ishikawa, T.²; Kikuchi, M.²; Hoshino, M.³; Kentaro, U.³
¹University of Osaka, Toyonaka (JP); ²JAXA, Tsukuba (JP); ³JASRI, Sayo (JP)

10:55 AM Lecture

Microstructural Evolution and Mechanical Properties of a Novel Compocast Al-7Si-0.35Mg-0.25MWCNT Composite

Anand, A.; Das, P.; Kumar, S. (Speaker)
Indian Institute of Science, Bangalore (IN)

E.6: Hybrid and Dissimilar Joining for Lightweight Structures

Session Chairs: Dr.-Ing. Carmen Schäfer ()

11:40 AM Lecture

Achieving of high strength and electrically conductive compounds of aluminum-copper via laser pretreatment in high pressure die casting

Specht, U. (Speaker)¹; Nolte, N.²
¹Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM, Bremen (DE); ²Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM, Bremen (DE)

11:55 AM Lecture

Laser Welding of Aluminum Cast-to-Sheet Joints for fluid-cooled components for e-mobility: State of the Art and Industrialization Challenges

Schäfer, C. (Speaker)
Freiberufliche Beraterin für Forschung, Entwicklung, Innovation, Rodengo (IT)

12:10 PM Lecture

Formation mechanism of dissimilar joint interface between A1070 aluminum and TP340 titanium produced by disc friction joining

Yamazaki, M.; Shibayanagi, T. (Speaker)
University of Toyama, Takaoka (JP)

12:25 PM Lecture

Fabrication of magnetic pulse welding sheets of aluminum alloy and Galvannealed steel plates subjected to film removal treatment and their welding property

Yamagata, R. (Speaker)¹; Hayashi, R.¹; Taniguchi, K.¹; Ishibasi, M.²; Okagawa, K.²; Itoi, T.¹

¹Chiba University (JP); ²Tokyo Metropolitan College of Industrial Technology (JP)

12:40 PM Lecture

Welding of Aluminum Foam Structure preform - Microstructural Study

Zheng, J.¹; Tan, M.-J. (Speaker)²

¹Huber University of Arts and Science, Xiangyang City (CN); ²Nanyang Technological University (SG)

E.7: Welding Metallurgy and Data-Enabled Process Windows

Session Chairs: *Jun.-Prof. Dr.-Ing. Peer Woizeschke ()*

2:35 PM Lecture

Use Of 3D Microstructural Characterisation to Understand Weld Liquefaction Effects in 6000-Series Alloys

Shiple-Jones, M.¹; Prabakar, A.²; Robertson, S.³; Jepson, M.³; Barbatti, C.²; Hogg, S. (Speaker)³

¹Innovat Technology, Sheffield (GB);

²Constellium, Uxbridge (GB); ³Loughborough University (GB)

2:50 PM Lecture

Qualifying Oxide/Passivation Layer-Stack Characterization Methods for Commercial Automotive 5xxx/6xxx Aluminum Sheets and Comparing Surface Conditions in Resistance Spot Welding

Wi, S.-M. (Speaker)¹; Fezer, A.¹; Hempel, W.²; Weingärtner, T.³; Weihe, S.¹; Werz, M.¹

¹University of Stuttgart (DE); ²Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW), Stuttgart (DE); ³Karlsruhe Institute of Technology (DE)

3:05 PM Lecture

AI-driven Microstructure-Property Mapping Enabled by High-throughput In-situ Mechanical Characterization in Friction-stir-welded AA6061-T6

Lee, K. (Speaker)¹; Gim, J.²; Cho, M.²; Kang, J.³

¹Korea Institute of Industrial Technology, Jeonju (KR); ²Korea Institute of Industrial Technology, Jinju (KR); ³University of California, Berkeley (US)

3:20 PM Lecture online

Numerical simulation of welding process in magnetic pulse welding of A6061 aluminum alloy and nickel coated copper
Okubo, Y. (Speaker)¹; Watanabe, M.¹; Suzuki, K.²; Kumai, S.³
¹Nihon University, Chiba (JP); ²Nippon Light Metal Co. Ltd., Shizuoka (JP); ³Institute of Science Tokyo (JP)

E.8: Joinability and Failure of Cast Aluminum Components

Session Chairs: *Dr.-Ing. Carmen Schäfer (Freiberufliche Beraterin für Forschung, Entwicklung, Innovation)*

4:35 PM Lecture

Solidification Rate-Dependent Evolution of Al-Fe Intermetallics in Mn-Modified AA8079 Alloy

Dhole, A. (Speaker); Gahlyan, S.; Khot, S. Hindalco Industries Limited, Mumbai (IN)

4:50 PM Lecture

Solidification-Microstructure-Joinability Correlation of Hypoeutectic AlSi-Alloys

Neuser, M. (Speaker); Hoyer, K.-P.; Schaper, M.

Paderborn University (DE)

5:05 PM Lecture

Structure and Properties of Al-Mg-Si-Mn casting alloy with a high Li addition

Boyko, V. (Speaker)¹; Voron, M.²; Burmak, A.³; Springer, A.¹; Mykhalenkov, K.¹; Keßler, O.¹

¹University of Rostock (DE); ²Physico-technological Institute of Metals and Alloys NAS of Ukraine, Kyiv (UA); ³Igor Sikorsky Kyiv Polytechnic Institute (UA)

5:20 PM Lecture

Investigating the Effect of Bondline Thickness on the Shear Strength of Adhesively Bonded Aluminium-alloy 6xxx Series Joints

Jethwa, M. (Speaker)¹; Harvey, C.¹; Rey, T.²; Hinton, E.²; Hogg, S.¹

¹Loughborough University (GB); ²Constellium UK, London (GB)

Hörsaal A

K.1: CALPHAD and ICME for Recycling-Tolerant Aluminum

Session Chairs: *Dr.-Ing. Markus Büscher ()*

10:10 AM Lecture

Development and application of CALPHAD databases for aluminium alloys

Yang, Y. (Speaker); Xing, M.; Naraghi, R.; Lancelot, C.-M.; Engström, A.

Thermo-Calc Software AB, Solna (SE)

10:25 AM Lecture

Enabling sustainable aluminum production through ICME

Aristeidakis, J. (Speaker)¹; Sachi, S.¹; Yan, F.¹; Berglund, I.¹; Yang, Y.²

¹Thermo-Calc Solutions AB, Solna (SE);

²Thermo-Calc Software AB, Solna (SE)

10:40 AM Lecture

Advances in Thermodynamic Description and Experimental Validation of Metastable Phase Equilibria in Al-Cu Alloys

Fang, Y. (Speaker)¹; Hack, K.²; Lippmann, S.¹
¹Friedrich Schiller University Jena (DE); ²GTT Technologies, Aachen (DE)

10:55 AM Lecture

Thermodynamic database development for Recycle Friendly Al alloy design

Jeong, C. (Speaker)¹; DuBay, J.²; Kang, D.²; Jung, I.-H.¹
¹Seoul National University (KR); ²Novelis, Kennesaw, (US)

K.2: Precipitation Kinetics and Through-Process Modeling

Session Chairs: *Dr.-Ing. Markus Büscher ()*

11:40 AM Lecture

Modeling core-shell precipitation in Al-Sc-Zr alloy from thermodynamic extremum principle

Amedeo, I.¹; Perez, M. (Speaker)²; Cazottes, S.²; De Geuser, F.³; Dorin, T.¹

¹Institute for Frontier Materials, Deakin University, Melbourne (AU); ²INSA Lyon, Villeurbanne (FR); ³Univ. Grenoble Alpes, CNRS, Grenoble INP, Saint Martin d'Hères (FR)

11:55 AM Lecture

Extended KWN-Based Precipitation Model and Sensitivity Analysis in AA6014

Moosavi, S.E. (Speaker)¹; Cayron, C.¹; Friedli, J.²; Liang, Z.²; Logé, R.¹

¹École Polytechnique Fédérale de Lausanne EPFL, Neuchâtel (CH); ²Novelis Switzerland SA, Sierre (CH)

12:10 PM Lecture

Through-process precipitation modelling of Aluminum-based AlMgSiCu alloys for Automotive Body Sheets

Boissonnet, L. (Speaker)¹; Haye, F.²; Olszewska, J.¹; Sigli, C.¹; Znaj, D.¹

¹Constellium Technology Centre, Voreppe (FR); ²ESPCI Paris-PSL (FR)

12:25 PM Lecture

A Precipitation Model for Simulation of the Ageing Response of Al-Si-Mg-Cu Foundry Alloys

Myhr, O.R. (Speaker); Bergin, A.; Åsholt, P.
Hydro Aluminium, Research and Technology Development, N-6601, Sunndalsøra, Norway (NO)

12:40 PM Lecture

Modelling precipitation during solidification, homogenization, extrusion and aging heat treatment of industrial Al alloys with PreciMS

Du, Q. (Speaker)
SINTEF Industry, Oslo (NO)

12:55 PM Lecture

The role of small clusters on quenched-in vacancies in aluminium alloys

Li, Y. (Speaker); Kahlenberg, R.; Kozeschnik, E.; Retzl, P.
TU Wien, Vienna (AT)

K.3: Rolling, Texture, and Recrystallization Modeling

Session Chairs: *Dr.-Ing. Angela Quadfasel ()*

2:35 PM Lecture online

A Physics-Informed Crystal Plasticity-Phase-Field Framework for Predictive Modeling of Static Recrystallization in Aluminum

Chakraborty, S. (Speaker)¹; Patil, C.²

¹Indian Institute of Technology Jammu (IN);

²Max-Planck-Institute for Sustainable Materials, Dusseldorf (DE)

2:50 PM Lecture

Constitutive modeling of sessile junction formation and destruction for the simulation of cold rolling of commercial Al-Mn alloys

Yoon, S. (Speaker)¹; Karhausen, K.-F.²; Riedel, M.¹; Bayati, A.³; Scharifi, E.³; Lian, J.³; Roters, F.¹

¹Max Planck Institute for Sustainable Materials, Dusseldorf (DE); ²Speira GmbH, Bonn (DE);

³RWTH Aachen University (DE)

3:05 PM Lecture

Texture Evolution During Cold Rolling of a 6014 Aluminum Alloy: a Combined Experimental and Modeling Study Using Viscoplastic Self-Consistent Model With Grain Fragmentation

Jing, Y. (Speaker)¹; Cantergiani, E.²; Zecevic, M.³; Cayron, C.¹; Friedli, J.⁴; Lebensohn, R.³; Logé, R.¹

¹École Polytechnique Fédérale de Lausanne EPFL, Neuchâtel (CH); ²Monash University, Clayton (AU); ³Los Alamos National Laboratory (US); ⁴Novelis Switzerland SA, Sierre (CH)

3:20 PM Lecture

Characterization and modeling of continuous dynamic recrystallization (CDRX): Application to 2139 aluminum alloy

Abaray, L. (Speaker)¹; Flipon, B.¹; Durand, M.¹; Bayona Carrillo, N.²; Bernacki, M.¹

¹École des Mines de Paris, Sophia Antipolis (FR); ²C-TEC Constellium Technology Center, Voreppe (FR)

3:35 PM Lecture

Numerical prediction of static recrystallization and thermal distortion during the press-quenching process to suppress PCG in aluminum extrusions.

Yoon, H. (Speaker)¹; Jang, C.²; Kwak, H.²; Tretyakov, D.³

¹Hyundai Motors Company, Uiwang (KR); ²CAE Technology Inc, Seoul (KR); ³QForm Group FZ LLC, Moscow (RU)

3:50 PM Lecture

Microchemistry development in recycling alloys 3005 and 3105 and impact on recrystallization behaviour

Laptyeva, G. (Speaker)

Speira GmbH, Bonn (DE)

K.4: Process Simulation for Casting, Heat Treatment, and Extrusion

Session Chairs: *Dr.-Ing. Angela Quadfasel* ()

4:35 PM Lecture

A Methodology for Pre-Casting Prediction of Elongation in Non-Heat-Treated High-Pressure Die Castings

Kim, J. (Speaker); Kang, H.; Yoon, H.S.

Hyundai Motors Company, Hwasung (KR)

4:50 PM Lecture

Numerical Assessment of Thermal Uniformity in an Aluminium Ageing Furnace

Jambucha, P.¹; Ahmad, S. (Speaker)¹; Bhola, H.²; Adhikari, S.¹; Gupta, A.¹; Ghatak, A.³; Saxena, M.²; Tathavadkar, V.¹; Srivastava, H.²
¹Aditya Birla Science & Technology. Co. Pvt. Ltd., Navi Mumbai (IN); ²Hindalco Industries Ltd., Renukoot (IN); ³Hindalco Industries Ltd., Mumbai (IN)

5:05 PM Lecture

Residual Stress Simulations through the 'simple MicroStructure Evolution' (sMSE) Framework

Helml, L. (Speaker)

TU Wien (AT)

5:20 PM Lecture

Microstructure Evolution in AA6060 Hot Extrusion: Mean-Field Modeling and Calibration via Miniaturized Extrusion Experiments

Schulz, O.¹; Gebhard, J. (Speaker)¹; Zapara, M.²; Korkolis, Y.P.¹

¹TU Dortmund University (DE); ²Fraunhofer-Institut für Werkstoffmechanik IWM, Freiburg (DE)

5:35 PM Lecture

Numerical Assessment of Process Parameters and Die Design Factors on Longitudinal Seam Weld of Hollow Tube Extrusions

Sisodia, D. (Speaker); Anavankottu, V.; Boda, H.; Wagle, G.

Hindalco Industries Limited, Navi Mumbai (IN)

5:50 PM Lecture

Prediction of Spatial Microstructure Distribution Using a Coupled Empirical-Physics-Based Model in Extruded Profiles of AA2024 Alloy

Dhole, A. (Speaker); Gahlyan, S.; Sisodia, D.

Hindalco Industries Limited, Mumbai (IN)

Hörsaal B

N.3: Aging and Strengthening in AA6xxx Alloys

Session Chairs: *Prof. Dr. Chad Sinclair* ()

10:10 AM Lecture

The Influence of Cluster Size and Distribution on Strain-Hardening Behavior in 6xxx Alloys

Bull, M. (Speaker)

Novelis, Kennesaw, (US)

10:25 AM Lecture

Influence of (Pre-)Deformation on the Precipitation Aging Behaviour and Mechanical Properties of Al-Mg-Si-Cu Alloys

Marthinsen, K. (Speaker)

Norwegian University of Science and Technology, Trondheim (NO)

10:40 AM Lecture

Modelling strength and work hardening of precipitate strengthened Al-Mg-Si alloys

Holmedal, B. (Speaker)¹; Lu, F.¹; Marioara, C.D.²; Sunde, J.K.¹; holmestad, r.¹

¹Norwegian University of Science and Technology, Trondheim (NO); ²Sintef industry, Trondheim (NO)

10:55 AM Lecture

Simulation of the precipitation and strengthening kinetics of Ahead® CP1 (Al-1Fe-1Zr wt.%) aluminium-based alloy designed for additive manufacturing

Sigli, C. (Speaker)¹; Chehab, B.²; De Geuser, F.³; Martin, G.⁴; Perez, M.⁵; Ricard, M.⁶; Shahani, R.²

¹Constellium Technology Centre, Voreppe (FR);

²Constellium Technology Center, Voreppe,

France; ³Univ. Grenoble Alpes, CNRS, Grenoble INP, SIMaP, F-38000 Grenoble;

⁴Univ. Grenoble Alpes; Institut Universitaire de France; ⁵INSA Lyon, CNRS, Université Claude

Bernard Lyon 1; ⁶Constellium Technology

Center; Univ. Grenoble Alpes

N.4: Extrusion Processing, ICME, and Emerging Manufacturing Routes

Session Chairs: *Prof. Dr. Warren Poole* ()

11:40 AM Lecture

Influence of Bridge Geometry and Welding Chamber Design on Microstructural Evolution and Mechanical Performance of AA6xxx Aluminum Alloy Extrusions

Wells, M. (Speaker); Wang, Y.

University of Waterloo (CA)

11:55 AM Lecture

Machine Learning-Based ICME for Aluminium Alloys

Inal, K. (Speaker)¹; Gammage, J.²

¹University of Waterloo (CA); ²University of Miami (US)

12:10 PM Lecture

Multi-phase kinetic precipitation model including automated metastable-stable phase transformations in Al-Mg-Si alloys Hwang, D.W. (Speaker)¹; Jung, I.-H.¹; Paliwal, M.²; Son, H.W.³

¹Seoul National University (KR); ²Indian Institute of Technology, Kharagpur, India (IN);

³Korea Institute of Materials Science, Changwon (KR)

12:25 PM Lecture

Electrical Conductivity of Extruded 6082-Alloys

Røyset, J. (Speaker)

Hydro Aluminium AS, Sunndalsøra (NO)

12:40 PM Lecture

Omega Precipitation in an Aluminium-Copper-Magnesium alloy Containing Trace Alloying Additions of Silver and Indium

Sarkar, R.¹; Mukhopadhyay, A. (Speaker)²; Ghosal, P.¹; Kumar, A.¹

¹Defence Metallurgical Research Laboratory, Kanchanbagh, Hyderabad-500 058, India (IN);

²Hindalco Industries Limited, Mumbai (IN)

C.1: EV and Automotive Aluminum Components and Performance

Session Chairs: *PD Dr.-Ing. habil. Stephanie Lippmann (Friedrich Schiller University Jena)*

2:35 PM Lecture

Improving the Bake Hardenability of Al-Zn-Cu-Mg Alloy Sheets for Automotive Body Applications

Kim, H.-W. (Speaker); Jeong, D.-H.; Kim, W.-K.; Lee, Y.-S.

Korea Institute of Materials Science, Changwon (KR)

2:50 PM Lecture

Development of High Formability AA5182 Sheets for Automotive EV Battery Enclosure Cover Plates

Wagle, G. (Speaker)¹; Deshpande, A.¹; Dutta, S.²; Khot, S.¹; Panda, P.²

¹Hindalco Industries Limited, Navi Mumbai (IN);

²Hindalco Industries Limited, Hirakud (IN)

3:05 PM Lecture

Development of Alloy for Laminated busbar applications in Electric Vehicles

Wagle, G. (Speaker); Khot, S.; Deshpande, A.; Warange, R.

Hindalco Industries Limited, Navi Mumbai (IN)

3:20 PM Lecture

Effect of Ce Addition, Solidification Cooling Rate, and Cold-Roll Reduction on Recrystallization Behavior of Auto-Grade AA5182 Al-5Mg Sheets and Foils

Moghabeli, F. (Speaker)¹; Jalili, A.¹;

Gallerneault, M.²; Howells, A.²; Fallah, V.¹

¹Queen's University, Kingston (CA); ²Hazelett-CASTechnology, 800 Innovation Dr., Kingston (CA)

C.2: 6xxx Alloy Recyclability and Microstructure Control

Session Chairs: *Dr. Torsten E.M. Staab (University of Würzburg)*

4:35 PM Lecture

6xxx Series Aluminum Alloy Produced from Mixed Recycled Scrap for Automotive Applications

Gupta, A. (Speaker); Chuc, E.; Sundaram, K.; Hambley, T.; Whitacre, D. Novelis, Novi, (US)

4:50 PM Lecture

Dispersoid Evolution in Al Mg Si (6xxx) Alloys: Influence of Alloying Elements, Processing Route, and Heating Conditions Assessed by Low kV SEM-EDS

Gauthier, P. (Speaker)¹; Marin Andrade, L.¹; Tschirhart, J.²; Vandale, E.²; Kamat, R.²; Shafiei, M.³

¹Rio Tinto Aluminum, Jonquiere (CA); ²Novelis, Kennesaw, (US); ³Rio Tinto Aluminum Technical Marketing, Chicago, (US)

5:05 PM Lecture

Impact of alloy chemistry and thermo-mechanical processing on grain structure in an Al-Mg-Si alloy for automotive applications

Gahlyan, S. (Speaker)¹; Prachi, A.²; Ray, S.³; Sarma, S.⁴; Wagle, G.¹; Yadav, R.³

¹Hindalco Industries Limited, Navi Mumbai (IN);

²Hindalco Industries Limited, Pune (IN);

³Hindalco Industries Limited, Singrauli (IN);

⁴Hindalco Industries Limited, Silvassa (IN)

5:20 PM Lecture

Factors Affecting the Width of Peripheral Coarse Grain Envelope in Heat-Treated Aluminium Alloy Extrusions

Kumar Mukhopadhyay, A.; Gahlyan, S. (Speaker); Mourya, V.; Dilipkumar, R.; Sreeja, V.; Alexander, B.

Hindalco Industries Limited, Mumbai (IN)

5:35 PM Lecture

Microstructural Stability and Property Evolution of Al-Mg-Si vs. Pure Aluminum Conductors under Simulated Long-Term Thermal Exposure

Zwicker, M. (Speaker)

Technical University of Denmark, Copenhagen (DK)

Hörsaal C

H.1: Recycling-Ready Aluminum Alloys for Mobility and Packaging

Session Chairs: *Prof. Dr. Stefan Pogatscher ()*

10:10 AM Lecture

Recycling shapes the future of mobility: Innovative alloy development for the automotive sector

Pücher, P. (Speaker)¹; Fragner, W.²; Prillhofer, B.¹

¹AMAG casting GmbH, Ranshofen (AT); ²AMAG Austria Metall AG, Ranshofen (AT)

10:25 AM Lecture

A High-Recycling Crossover Alloy Development for Automotive Flat Rolled Products

Torres Miranda, A. (Speaker)¹; Sen, F.G.²; Lakshmanan, A.²; Liang, Z.¹
¹Novelis, Sierre (CH); ²Novelis, Kennesaw, (US)

10:40 AM Lecture

Microstructure and Microchemistry Evolution During D.C. Casting and Homogenization of an Al-Mn-Mg Uni-Alloy for Sustainable Aluminium Packaging Applications

Tsiolis, F. (Speaker)¹; Dimitriou, H.²; Chrysikou, E.²; Mohammed, W.¹; Papaefthymiou, S.²; Raabe, D.¹; Roters, F.¹

¹Max Planck Institute for Sustainable Materials, Düsseldorf (DE); ²National Technical University of Athens, Zografou, Athens (GR)

10:55 AM Lecture

Processing and Performance of EN AW-6063 Aluminum with Scrap-Induced Impurities

Arnoldt, A. (Speaker)¹; Gneiger, S.¹; Jiao, F.²; Mester, K.¹; Simson, C.¹; Tölle, J.²
¹AIT Austrian Institute of Technology, Braunau am Inn (AT); ²BENTELER Automobiltechnik GmbH R&D, Paderborn (DE)

H.2: Precipitation Engineering and Microalloying in Aluminum

Session Chairs: *Dr. Thomas Dorin ()*

11:40 AM Lecture

Control of Aging Behavior in Al-Mg-Si Alloys: Promoting Clustering and Interfacial Stabilization via Trace Ni Addition

Son, H.-W.; Nam, S.-M.; Euh, K. (Speaker)
Korea Institute of Materials Science, Changwon (KR)

11:55 AM Lecture

Hardening precipitates in Al-Fe alloys

Tyurnina, A. (Speaker); Negrea, R.; Mendis, C.; Eskin, D.
Brunel University London, Uxbridge (GB)

12:10 PM Highlight Lecture

The effect of Cu addition and pretreatments on the precipitation behaviour of Al-Mg-Zn crossover alloys

Wu, X. (Speaker)
Chongqing University, Shapingba (CN)

12:25 PM Lecture

Integrated design of a new ultra-high strength aluminum alloy

Xiao, X. (Speaker); Wang, G.; Wu, H.; Liu, C.; Zhang, Q.; Zhou, Z.
Chinalco Materials Application Research Institute CO., Ltd, Beijing (CN)

H.3: Aluminum Alloys for High Temperature and Extreme Environments

Session Chairs: *Dr. Werner Fragner ()*

2:35 PM Lecture

Aluminium for Extreme Environments: Radiation-Resistant CrossAlloy®.57

Falkinger, G. (Speaker); Stemper, L.; Schmid, F.; Tosone, R.
AMAG rolling GmbH, Ranshofen (AT)

2:50 PM Lecture

Space Debris Recycling for Radiation Shielding: Metallurgical Feasibility and Contamination Tolerance

Frühwirth, C. (Speaker); Seitlinger, A.-C.; Kremmer, T.; Samberger, S.; Tunes, M.; Pogatscher, S.
Montanuniversität Leoben (AT)

3:05 PM Lecture

Challenges in the industrial implementation of Al3X-strengthening in aluminum alloys for high-temperature applications

Donau, M.R.W. (Speaker)¹; Holec, D.²; Povoden-Karadeniz, E.³; Koller, C.M.⁴; Keckes, J.²; Kozeschnik, E.³; Pogatscher, S.²
¹Pankl Racing Systems AG, Bruck an der Mur (AT); ²Montanuniversität Leoben (AT); ³TU Wien (AT); ⁴Pankl Racing Systems AG, Bruck a.d. Mur (AT)

3:20 PM Lecture

Design of High Recycling Aluminium Cast Alloys via Mg:Cu Ratio Control

Mester, K. (Speaker); Gneiger, S.; Simson, C.
Light Metals Technologies Ranshofen (AT)

3:35 PM Lecture

Effects of Tin Microalloying in AlSi7Cu Foundry Alloys

Indriyati, M. (Speaker)¹; Åsholt, P.²; Saito, T.³
¹Hydro Aluminium AS, Havik (NO); ²Hydro Aluminium AS, Sunndalsøra (NO); ³Hydro Aluminium Asia Pte.Ltd, Singapore (SG)

G.9: Advanced Processing and Application-Oriented Performance

Session Chairs: *Prof. Dr.-Ing. Benjamin Klusemann ()*

4:35 PM Lecture

Effect of hot-rolling temperature on strength of Al-Mn-Mg alloy sheets containing small amount of copper

Nakayasu, H. (Speaker); Tabuchi, Y.
Kobe Steel Ltd., Moka (JP)

4:50 PM Lecture

A strain rate and temperature dependent deformation behaviour and processing map of Novel Compocast ex-situ A356-0.25MWCNT composite

Pandey, D.K. (Speaker); Das, P.
Indian Institute of Science, Bengaluru (IN)

5:05 PM Lecture**Effect of Surface Microstructure on the Mechanical Properties of Die-Cast Al-Si-Cu Alloy**

Ikeda, K.-i. (Speaker)¹; Otani, T.¹; Miura, S.¹; Mizuno, T.²; Tabata, E.²; Furukawa, Y.²
¹Hokkaido University, Sapporo (JP); ²Toyota Motor Corporation (JP)

5:20 PM Lecture**Manufacturing of carbon fibre reinforced aluminium composites and its properties**

Unger, M. (Speaker)¹; Reiter, J.¹; Ucsnik, S.¹; Siegl, W.²

¹Light Metals Technologies Ranshofen, Braunau am Inn, Ranshofen (AT); ²HyCentA Research GmbH, Graz (AT)

5:35 PM Lecture**Material strength investigations for a metal hydride-based hydrogen storage tank manufactured by aluminum extrusion**

Fuchsa, J. (Speaker)¹; Esterl, F.²; Hendriok, L.²; Passing, M.³; Klassen, T.¹; Ben Khalifa, N.²; Jepsen, J.¹
¹Helmut-Schmidt-Universität / Universität der Bundeswehr Hamburg (DE); ²Leuphana Universität, Lüneburg (DE); ³Helmoth-Zentrum Hereon, Geesthacht (DE)

Hörsaal D**L.1: Intermetallic Control in Recycled Al-Si and Twitch Scrap**

Session Chairs: *Dr. Irmgard Weißensteiner ()*

10:10 AM Lecture**Probing the morphological and phase transformations of intermetallic compounds for impurity-tolerant aluminium recycling**

Feng, S. (Speaker)¹; Grant, P.²; Liotti, E.²
¹University of Sussex, Brighton (GB); ²University of Oxford (GB)

10:25 AM Lecture**Controlling Intermetallic Phase Formation in Twitch Aluminium Scrap Through Solidification Rate and Laser Remelting for Enhanced Recyclability**

Zhang, X. (Speaker)¹; Liotti, E.²; Feng, S.³; Christie, J.¹; Grant, P.²; Hogg, S.¹
¹Loughborough University (GB); ²University of Oxford (GB); ³University of Sussex (GB)

10:40 AM Lecture**Effects of Sr on the Size of Fe-Rich Intermetallics and Mechanical Properties of Recycled Al-Si Alloys**

Li, C. (Speaker); Chen, L.; Li, X.; Xu, Y.; Zhang, H.
 Weiqiao Lightweight Research Center at Soochow, Suzhou (CN)

10:55 AM Lecture**Direct Re-forming Process of Aluminium Production and EoL Sheet Scraps**

Oberhauser, P. (Speaker)¹; Grabner, F.¹; Oster, R.²; Osterreicher, J.A.¹
¹Light Metals Technologies Ranshofen, Neukirchen (AT); ²EDAG Engineering GmbH, Neckarsulm (DE)

L.2: Impurity Tolerance in Wrought and Foil Alloys

Session Chairs: *Dr.-Ing. Hanka Becker ()*

11:40 AM Lecture**Influence of Fe and Mn Contents on Microstructure and Mechanical Properties of Al-Mg-Si Alloys.**

Arayama, T. (Speaker)
 RESONAC Corporation, Tokyo (JP)

11:55 AM Lecture**Friction Stir Processing: A Solution for Fe-rich Particle-Induced Embrittlement in Recycled Aluminum Alloys**

Yarlapati, A.¹; Yarlapati, A.¹; Zaker, N.²; Shalchi-Amirkhiz, B.²; Jin, H.²; Gerlich, A.¹; Benoit, M. (Speaker)¹
¹University of Waterloo (CA); ²Natural Resources Canada - CanmetMATERIALS, Hamilton (CA)

12:10 PM Lecture**Improving tolerance of aluminium alloys to increased alloying element content**

Broadbent-Clark, O. (Speaker)¹; Robson, J.¹; Kamp, N.²; Mehrens, T.²; Padilha Noronha, F.²; Jurendic, S.²
¹The University of Manchester (GB); ²Novelis, Göttingen (DE)

12:25 PM Lecture**Towards higher recycled content in Aluminium foils**

Hofinger, M. (Speaker); Honaramooz, M.T.; Kornfeld, M.; Pruonto, E.
 Constantia Teich GmbH, Weinburg (AT)

12:40 PM Lecture**Effect of Scrap-Induced Mg Enrichment on the Corrosion Performance of 8006 Aluminium Container Foil**

Kabil, A. (Speaker); Toplu, A.; Mollaoğlu Altuner, H.; DüNDAR, M.M.
 Assan Alüminyum San. ve Tic. AS, Istanbul (TR)

12:55 PM Lecture**Impact of Recycling-Induced Impurities on 6016 Alloy Performance for Automotive Applications**

MAS, F. (Speaker)¹; LECHNER, M.²; MERKLEIN, M.²; PFITZER, M.³; REBUFFET, O.¹; SCHUPP, D.³; SCHWEIKER, T.³
¹Constellium Technology Centre, Voreppe (FR); ²Friedrich-Alexander-Universität, Erlangen (DE); ³Mercedes, Sindelfingen (DE)

L.3: Solid-State Recycling and Powder/Chip Valorization

Session Chairs: *Prof. Michael Benoit ()*

2:50 PM Lecture

Solid-state recycled of AA6060: Rationalizing the impact of oxides on the mechanical properties

Lola, L. (Speaker)¹; Corre, T.²; Duchateau, T.¹; Gebhard, J.³; Huneau, B.²; Korkolis, Y.³; Laurent-Brocq, M.⁴; Perrin, J.²; Schulz, O.³; Tekkaya, E.³

¹IRCP CNRS, Paris (FR); ²GeM Centrale Nantes (FR); ³IUL Dortmund (DE); ⁴ICMPE CNRS, Thiais (FR)

2:50 PM Lecture online

Solid-state recycling of aluminum alloys: insights into oxidation and welding during extrusion

Laurent-Brocq, M.¹; Liliensten, L.²; Duchateau, T. (Speaker)¹; Perrière, L.¹; Gebhard, J.³; Schulz, O.³; Tekkaya, E.³; Korkolis, Y.³

¹Institut de Chimie et des Matériaux Paris-Est, Thiais (FR); ²Institute Of Research of Chimie Paris (FR); ³Institute of Forming Technology and Lightweight Components, Dortmund (DE)

3:05 PM Lecture

Aluminium Alloy Chip Recycling: Strategies for Efficient and Sustainable Recovery

Chen, X. (Speaker); Ben Saada, M.; Lavissee, B.; Ammar, A.
Arts et Métiers – ParisTech, Angers (FR)

3:20 PM Lecture

Recycling of Out-of-Spec AlSi10Mg Powders via Powder Metallurgy and Suction Casting

Spinelli, J.E. (Speaker)
Universidade Federal de São Carlos (BR)

3:35 PM Lecture

Waste valorization as reinforcement of aluminium extrusion alloys

Cruz Torres, S. (Speaker)¹; Baldi, T.²; da Silva, M.¹

¹Eurecat – Centre Tecnològic de Catalunya, Cerdanyola del Vallès (ES); ²Grupal Art, Lliça de Val (ES)

3:50 PM Lecture

Interfacial bonding and mechanical performance in solid-state recycling of aluminum chips

Koch, A. (Speaker); Walther, F.
TU Dortmund University (DE)

L.4: High-PCR Alloy Upcycling and Process/Modeling Tools

Session Chairs: *Prof. Dr. Joseph Robson ()*

4:35 PM Lecture

Car2Car Recycling – Properties of Alloys with High PCR Content for Automotive Applications

Daaland, O. (Speaker)¹; Rödl, F. (Speaker)²; Rist, S.³

¹Hydro Aluminium Metal, Oslo (NO); ²Dr.-Ing. h.c. F. Porsche AG, Weissach (DE); ³Hydro Sunddal, Sunddalsora (NO)

4:50 PM Lecture

Role of Aluminium Resource Circulation in Building Circular Economy

Kumai, S. (Speaker)
Institute of Science Tokyo (JP)

5:05 PM Lecture

Repurposing High-Fe and High-Si Aluminium Scrap for Wrought Applications

Samberger, S. (Speaker)¹; Kobayashi, E.²; Löffler, J.F.³; Stoica, M.³; Pogatscher, S.¹

¹Montanuniversität Leoben (AT); ²Institute of Science Tokyo (JP); ³ETH Zurich, Zürich (CH)

5:20 PM Lecture

Removal of Fe and Cu from the AlSi9Cu3(Fe) alloy

Kleine, A. (Speaker)¹; Beyer, T.¹; Friedrich, S.²; Yang, B.²

¹TRIMET Aluminium SE, Essen (DE); ²RWTH Aachen University (DE)

5:35 PM Lecture

Thermodynamic Phase Prediction and Precipitation Modelling in Development of Aluminium Casting Alloys With High Recycling Content

Irmer, D. (Speaker)¹; Sanchez, A.²; Silue, L.²; Osmond, P.¹; Stucky, M.¹; Bureau, G.³; Vaissiere, L.⁴

¹Centre Technique des Industries Mécaniques, Senlis (FR); ²IRT MP2, Metz (FR); ³Stellantis, Poissy (FR); ⁴Renault, Guyancourt (FR)

5:50 PM Lecture

Assessment of the Influence of Grade and Type of Aluminium Scrap on the Quality of Produced Aluminium Alloys

Boczkal, S. (Speaker); Hrabia Wiśnios, J.; Augustyn, B.; Kapinos, D.; Szymański, W.; Szymańska, E.

Łukasiewicz Research Network - Institute of Non-Ferrous Metals, Skawina (PL)

Konferenzraum

Internal Meetings

1:00 PM Meeting
Meeting of the IOC

Foyer/External

Breaks

10:00 AM - 10:10 AM

Short Break

11:10 AM - 11:40 AM

Coffee Break

1:10 PM - 2:35 PM

Poster Sessions & Lunch Break

4:05 PM - 4:35 PM

Coffee Break

Networking opportunity III

7:45 PM Networking Opportunity

Conference Dinner @

Eventlocation Wasserwerk

17 Sep 2026 (Thu)

Audimax

ECR: ECR-AWARD

Session Chairs: *Christophe Sigli (Constellium Technology Centre)*

8:30 AM Lecture

Introduction ECR Award

8:40 AM Early Career Researcher Award Talk
Understanding the role of defects for precipitation in AlMgSiCu alloys

Kahlenberg, R. (Speaker)¹; Went, M.²; Fröck, H.²; Falkinger, G.³; Reisecker, C.³; Schuster, R.⁴; Helml, L.¹; Krejci, A.¹; Maawad, E.⁵; Reich, M.²; Milkereit, B.²; Kozeschnik, E.¹

¹TU Wien (AT); ²University of Rostock (DE);

³AMAG rolling GmbH, Ranshofen (AT);

⁴University of Vienna, Wien (AT); ⁵Helmholtz-Zentrum Hereon, Geesthacht (DE)

9:00 AM Early Career Researcher Award Talk
3D Microstructure and Damage Evolution in Highly Deformed Automotive Sheet Alloys

Patnaik, S. (Speaker)¹; Yu, X.²; Carsley, J.²; Chawla, N.¹

¹Purdue University, West Lafayette, Indiana, (US);

²Novelis Global Research and Technology Center, Kennesaw, Georgia, (US)

9:20 AM Early Career Researcher Award Talk
Insight into additive manufacturing via friction surfacing – material flow, microstructure & properties

Kallien, Z. (Speaker)¹; Roos, A.²; Klusemann, B.¹

¹Leuphana Universität Lüneburg (DE);

²Helmholtz-Zentrum Hereon, Geesthacht (DE)

9:40 AM Early Career Researcher Award Talk
On the Bending Anisotropy of T6 Treated AA6082 Extrusions

Wang, Y. (Speaker)¹; Noder, J.¹; Rometsch, P.²

¹University of British Columbia, Vancouver (CA); ²Rio Tinto Aluminium, Saguenay (CA)

10:00 AM Early Career Researcher Award Talk
Processing Strategies for Converting Aluminum Waste Into Commercial Alloy

Saini, D.K. (Speaker); Mohemmed, W.; Raabe, D.

Max Planck Institute for Sustainable Materials, Dusseldorf (DE)

D.1: Data-Driven Alloy Design and Atomistic Modeling

Session Chairs: *Dr. Irina Roslyakova ()*

10:40 AM Lecture

Machine Learning-Based Modeling of Yield Strength in Lean Aluminum Alloys

Volkmer, L. (Speaker)

TU Dresden (DE)

10:55 AM Lecture

A machine learning model of atomic interactions in the Al-Cu alloy

Dösinger, C. (Speaker); Romaner, L.

Montanuniversität Leoben (AT)

11:10 AM Lecture

A process-synergistic active learning framework for high-strength Al-Si alloys design

Jianming, C. (Speaker)

Xi'an Jiaotong University (CN)

11:25 AM Lecture

Facilitating creep-resistant Al alloy design through a physics-aware integrated machine learning pipeline

Cao, Z. (Speaker)

Shanghai Jiao Tong University (CN)

D.2: ML for Processing, Qualification, and Microstructure Control

Session Chairs: *Dr. Jan Janssen ()*

12:00 PM Lecture

Machine learning-informed design of additively manufactured high-strength aluminum alloys

Ozdemir, H.C. (Speaker); Turnali, A.; Brasche, F.L.; Haase, C.

TU Berlin (DE)

12:15 PM Lecture

Automated Creep Data Processing for Digital Laboratory Workflows

Roslyakova, I. (Speaker)¹; Calderón, L.Á.²;

Shakeel, Y.³; Skrotzki, B.²

¹GTT-Technologies, Herzogenrath (DE);

²Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin (DE); ³Karlsruhe Institute of Technology (KIT) (DE)

12:30 PM Lecture

AI-Based Inclusion Detection in K-Mold Tests for foundry Aluminum Alloys

Incorporating Alloy-Dependent Accuracy and Hierarchical Clustering Analysis

Kitaguchi, T. (Speaker)¹; Agematsu, H.²;

Kanakubo, R.²

¹Nippon Light Metal Company, Ltd., Shizuoka

(JP); ²Nikkei MC Aluminium Co., Ltd., Shizuoka (JP)

12:45 PM Lecture
Data- and Characterization-Co-Driven Study on Composition Design and Aging Mechanisms of Al-Mg-Zn-Cu Alloys
Yang, M. (Speaker)
Central South University, Changsha (CN)

General

1:10 PM General Event Item
Closing of ICAA 20

Keßler, O. (Speaker)¹; Skrotzki, B. (Speaker)²
¹University of Rostock (DE); ²Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin (DE)

Hörsaal A

K.5: Additive Manufacturing Microstructure and Thermal Histories

Session Chairs: *Dr. Markus Apel ()*

10:40 AM Lecture
Numerical Modeling of Local Intrinsic Heat Treatment in PBF-LB/M AlSi10Mg: Coupling FEA with Ageing Kinetics
Ye, S. (Speaker)¹; Benito, S.¹; Steuer, R.²; Keßler, O.²; Weber, S.¹
¹Ruhr University Bochum (DE); ²Universität Rostock (DE)

10:55 AM Lecture
Effect of minor addition of Sr and B in Novel Al-15Mg2Si-4.5Si composite during rheo-casting and subsequent heat treatment on microstructural transformation: A phase field study
Mukherjee, I.; Das, P. (Speaker)
Indian Institute of Science, Bangalore (IN)

11:10 AM Lecture
Microstructure Modeling for Creep and Self-healing of Aluminium Alloys
Terrazas, T. (Speaker)¹; Nzengu, P.¹; Dösinger, C.²; Rومانer, L.²; Poletti, C.¹
¹Graz University of Technology (AT); ²Montanuniversität Leoben (AT)

11:25 AM Lecture
Modelling Magnetohydrodynamic Effects on Dendritic Solidification in Additive Manufacturing Melt Pools
Verheul, E. (Speaker)¹; Flint, T.¹; Pickering, E.¹; Shanthraj, P.²
¹The University of Manchester (GB); ²UKAEA, Culham (GB)

K.6: Multiscale Mechanics, Damage, and Extreme-Environment Modeling

Session Chairs: *Santiago Uhlenbrock ()*

12:00 PM Lecture
Failure prediction of 6xxx aluminum alloys with a coupled crystal plasticity and extended phase field damage model
Hu, Y. (Speaker)¹; Falkinger, G.²; Roters, F.¹; Shah, V.²
¹Max Planck Institute for Sustainable Materials, Düsseldorf (DE); ²AMAG Austria Metall AG, Ranshofen (AT)

12:15 PM Lecture
Theoretical ab initio predictions of L12-Al3Zr structure stabilization by vacancy incorporation on the Zr sublattice
Ehlers, F.J.H. (Speaker)¹; Ding, L.¹; Jia, Z.¹; Tian, Q.²
¹Nanjing Tech University (CHN) (CN); ²University of Science and Technology Beijing (CN)

12:30 PM Lecture
DFT Modeling of Al-Ce Solid Solutions: Challenges and Opportunities
Steffensen, K. (Speaker); Béland, L.K.; Diak, B.J.
Queen's University, Kingston (CA)

12:45 PM Lecture
Radiation Shielding in Deep Space: Assessment of Aluminium Alloys and Composite Concepts
Frühwirth, C. (Speaker); Tunes, M.; Pogatscher, S.
Montanuniversität Leoben (AT)

Hörsaal B

C.3: High-Strength Aluminum Alloys for Aerospace Structures

Session Chairs: *Prof. Dr.-Ing. Jürgen Hirsch ()*

10:40 AM Lecture
ICME for Aerospace Forgings
Quadfasel, A. (Speaker); Witulski, T.
Otto Fuchs KG, Meinerzhagen (DE)

10:55 AM Lecture
Mechanisms and Microstructural Effects Responsible for Anisotropic Tearing Resistance in AA7075-T6 Sheet at 200 °C
Nikolai, D. (Speaker)
The University of Texas at Austin (US)

11:10 AM Lecture
Unexpected Long-Term Room Temperature Hardening of AA7075 After Thermo-Mechanical Processing and Peak (T6) Aging
Akuata, C.K. (Speaker)¹; Scharifi, E.²; Kopruch, L.²; Beyss, O.²; Zander, D.²; Steinhoff, K.³
¹German Aerospace Center (DLR), Cologne (DE); ²RWTH Aachen University (DE); ³University of Kassel (DE)

11:25 AM Lecture
Circular Economy Approaches in Aerospace: Aluminium Swarf Recycling
Antunes, J. (Speaker)¹; Buerger, A.²; Butler, C.¹; Gilbraith, A.¹; Kirkham, S.²; Kuehn, J.²; Miermeister, M.²; Petry, J.²; Portsmore, A.¹; Reynolds, A.¹; Rudram, H.¹
¹GKN Aerospace GmbH, Bristol (GB); ²Novelis, Koblenz (DE)

C.4: Advanced Processing and Space Environments for Aluminum

Session Chairs: *Prof. Dr. Dmitry Eskin (Brunel University London)*

12:00 PM Lecture online

A new approach to improve mechanical properties in a hot-extruded A6063 aluminum alloy using laser powder bed fusion fabricated billets

Kuroda, Y. (Speaker)¹; Oda, S.¹; Araki, M.¹; Murayama, M.²

¹YKK AP Inc., Kurobe (JP); ²Virginia Polytechnic Institute and State University, Blacksburg, (US)

12:15 PM Lecture

Experimental and numerical technology design for twin-roll casting of highly particle-reinforced aluminum matrix composite flat products for deep drawing applications

Basak, S. (Speaker)
Paderborn University (DE)

12:30 PM Lecture

Effect of Mn Addition on Thermal Stability and Creep Resistance of Al-3.5Cu-0.1Sc alloy

Kaharudin, A.A. (Speaker)¹; Shinzato, Y.¹; Minoda, T.¹; Langan, T.²

¹UACJ Corporation, Nagoya (JP); ²Sunrise Energy Metals Ltd, Melbourne (AU)

Hörsaal C

I.1: Electrification Materials: Busbars, Collectors, Anodes, and Thermal Coatings

Session Chairs: *Dr.-Ing. Milan Felberbaum ()*

10:40 AM Lecture

Aluminium Foil Coating with Graphene as Current Collector of LiFePO₄ Cathode in Lithium-ion Battery

Razaz, G. (Speaker)¹; Arshadi, S.¹; Sun, J.²; Örtengren, J.¹

¹Mid Sweden University, Sundsvall (SE);

²Chalmers university of technology, Gothenburg (SE)

10:55 AM Lecture

6xxx-Series for High-Performance Bus Bar Applications: Background, Development and Outlook

Sommerauer, M. (Speaker)
AMAG rolling GmbH, Ranshofen (AT)

11:10 AM Lecture

Microstructural Tailoring of Aluminum Anodes via Severe Plastic Deformation for Enhanced Al-Air Battery Performance

Punyafu, J. (Speaker); Moonngam, S.; Banjongprasert, C.

Chiang Mai University (TH)

11:25 AM Lecture

Effect of silica in a coating film on the heat radiative properties and processing of pre-coated aluminum materials

Watanabe, H. (Speaker)
UACJ Corporation, Nagoya City (JP)

I.2: Emerging Aluminium Applications: Low-Carbon Concrete to Precision Manufacturing

Session Chairs: *Dr.-Ing. Milan Felberbaum ()*

12:00 PM Lecture

Unlocking a New Market: Aluminium Reinforcement for Low Carbon Concrete

Hjetland, G.¹; Knudsen, O.Ø.²; Gundersen, J.T.B.¹; Halseid, M.C. (Speaker)¹; Furu, T.³
¹Hydro Aluminium AS, Karmøy (NO); ²SINTEF, Trondheim (NO); ³Norsk Hydro ASA, Sunndal (NO)

12:15 PM Lecture

Evaluation of Manufacturing Process and Material Design for Aluminum/Thermoplastic Laminates

Tanabe, D. (Speaker)¹; Nishiyabu, K.²; Asano, K.²

¹Kobe City College of Technology (JP); ²Kindai University, Osaka (JP)

12:30 PM Lecture

Turning Machinability of Carbon Fiber Reinforced Aluminum Alloy Composites

Asano, K. (Speaker); Fujita, T.; Liu, J.
Kindai University, Higashiosaka (JP)

12:45 PM Lecture

Upgrading the Queen of Musical Instruments with Al Pipes

Schöning, H. (Speaker)¹; Schmidt, J.-G.²; Gunkel, S.³; Stawenow, A.³; Plenaitis, S.³; Milkereit, B.¹; Kessler, O.¹

¹University of Rostock (DE); ²Historische Tasteninstrumente Johann-Gottfried Schmidt, Rostock (DE); ³Schweißtechnische Lehr- und Versuchsanstalt Mecklenburg-Vorpommern GmbH, Rostock (DE)

Hörsaal D

L.5: Impurity Removal and Melt-Processing Concepts

Session Chairs: *Prof. Geoff Scamans ()*

10:40 AM Lecture

Precipitation of Si and Fe From Al-Si and Al-Fe Alloys Using Sn Bath

Ono, H. (Speaker); Kato, K.; Maeda, K.
University of Toyama (JP)

10:55 AM Lecture

Aluminium Recovery from Sn-Al Alloys through Solid-Liquid Separation by Compression

Iwasawa, S. (Speaker)
University of Toyama, Imizu city (JP)

11:10 AM Lecture**Si and Fe Removal from Molten Al-Mg Alloy through Precipitation of Inter-metallic Compounds**

Kato, K. (Speaker); Shinomiya, Y.; Ono, H.
University of Toyama (JP)

11:25 AM Lecture**Microstructure formation in recycled Al alloys on new intermetallic substrates during solidification: Insights into heterogeneous nucleation via wetting experiments**

Kuppala, G.K. (Speaker); Troian, A.; Becker, H.
Otto von Guericke University Magdeburg (DE)

L.6: Closed-Loop Recycling, Footprints, and Adaptive Processing

Session Chairs: *Dr. Johannes Österreicher* ()

12:00 PM Lecture**From Facade to Furnace to Facade: Closing the Loop Through Advanced EoL Recycling**

Wilfert, J.¹; Spöhr, S. (Speaker)²
¹Hydro Aluminium Deutschland GmbH, Ulm (DE); ²Hydro Aluminium Deutschland GmbH, Aachen (DE)

12:15 PM Lecture**Intermetallic Phase Evolution and Control of Microstructure in Highly Recycled Aluminium Alloy Products**

Scamans, G. (Speaker); Clinch, M.; Nassar, A.; Silver, D.; Williams, C.
Innoval Technology, Rotherham (GB)

12:30 PM Lecture**Advancing Sustainable Aluminium by Adaptive Processing (ASAAP)**

Scharifi, E. (Speaker); Bailly, D.; Lian, J.
RWTH Aachen University (DE)

12:45 PM Lecture online**Fundamental Study on Non-Destructive Discrimination of Wrought Aluminum Alloys using Impact Sound Characteristics**

Iizuka, K. (Speaker); Kato, T.; Takahashi, H.; Furui, M.
Tokyo University of Technology, 1404-1, Katakura, Hachioji, Tokyo, 192-0982 (JP)

Foyer/External**Breaks****10:20 AM - 10:40 AM**

Coffee Break

11:40 AM - 12:00 PM

Coffee Break

1:00 PM - 1:10 PM

Short Break

Excursion**3:00 PM** Excursion

Excursion - Bundesanstalt für Materialforschung und -prüfung (BAM)

Poster**A: Additive Manufacturing of Al Alloys****A-179** Poster online

Microstructure of friction stir additive manufactured A5052 aluminum alloy
Tsuchida, R. (Speaker); Noguchi, Y.; Yoshida, K.; Watanabe, M.

A-195 Poster

Comprehensive Testing of Aluminum Scandium Scalmalloy® Powders
Bartov, G. (Speaker); Putyera, K.

A-497 Poster

Mechanochemical Synthesis of Cu-Al Intermetallic Alloy
Koshiya, M. (Speaker)

A-502 Poster

Towards Predictive Process Design in Directed Energy Deposition of Aluminium Alloys
Saha, P. (Speaker)

B: Advanced Characterization**B-261** Poster

Metallographic Techniques for Phase Analysis in Quasicrystalline Aluminium Alloys Al-Mn-Cu(X)
Boncina, T. (Speaker)

B-281 Poster

The Influence of Mn and Cooling Rate After Extrusion on the Mechanical Properties of 6063 Alloys

Bergene, E. (Speaker)¹; Konow, I.¹; Marioara, C.²; Mørtzell, E.³; Røyset, J.³; Holmestad, R.¹

B-397 Poster

Tensile Testing of Secondary Al-Mg-Si (6xxx) Alloys: In situ Synchrotron Investigation of Deformation and Texture Evolution

Brandstetter, F. (Speaker)¹; Miesenberger, B.²; Kuss, M.³; Maawad, E.⁴; Bodner, S.C.¹

B-424 Poster

Scrap-Driven Phase Control: Fe-Containing Intermetallics in Heterostructured Wrought Aluminium Alloys

Nackas, M. (Speaker); Pogatscher, S.

B-488 Poster

Design of High Temperature Strength Aluminium Rare-Earth Eutectic Alloys
Dounde, S. (Speaker)

B-492 Poster

Precipitation Evolution and Enhanced Order Strengthening in an Al-7.7Li Alloy Microalloyed with Er Under Two-Stage and One-Stage Ageing
Gao, K. (Speaker)

B-498 Poster**3D Characterization of Eutectic Silicon in Gravity Casting and High Pressure Die Casting**

Bosio, L. (Speaker); Liu, F.

C: Aerospace and Automotive Industry**C-429** Poster**Structure-Property Relationships of Recycled Aluminium in the Fabrication of Busbars for Electromobility**

Ghavimi, T. (Speaker); Sandlöbes-Haut, S.

C-432 Poster**Innovative heat-treatment for Manufacturing Structural Parts from High Strength Aluminum Alloys**

Kumar, M. (Speaker)

C-433 Poster**Spiking Technology for High-Performance Automotive Aluminum**

Kumar, M. (Speaker)

C-490 Poster**Bending of recycled aluminium sheet: toward a better understanding of micromechanics**

Jean, M. (Speaker)

E: Casting, Solidification, and Joining**E-122** Poster**Low-temperature solid-state thermo-compression bonding process between Ag finishes using Ag nanoparticle preforms**

Kim, Y.S.; Lee, J.-H. (Speaker)

E-173 Poster**Effect of tool length on aging behavior in friction stir welded A2024 aluminum alloy**

Tsuji, A. (Speaker)¹; Ando, T.¹; Kawakami, R.²; Onodera, K.³; Sakuraba, Y.²; Tayu, Y.¹; Uetake, R.²; Yoshida, K.¹

E-176 Poster**Morphological evolution of eutectic Si phase in hypoeutectic Al-Si cast alloy by the addition of Na modifier**

Terashima, R. (Speaker); Sato, H.; Mihara-Narita, M.; Watanabe, Y.

E-315 Poster**Microstructure of bonding interface and macroscopic mechanical property in A6061/A6061 diffusion bonds**

Tsuchiya, M. (Speaker)¹; Dannoshita, H.¹; Muraishi, S.¹; Kumai, S.¹; Kitazawa, T.²; Makibuchi, H.²

E-327 Poster**Numerical Investigation of the Joining Process in Magnetic Pulse Welding of Aluminum to Dissimilar Metals**

Hayashi, R. (Speaker)¹; Yamagata, R.¹; Ishibashi, M.²; Okagawa, K.²; Itoi, T.¹

E-390 Poster**An integrated experimental and computational phase field approach to study the effect of cooling rate on the microstructure evolution of aluminium alloys**

Samal, A.P. (Speaker); Bauri, R.; Phanikumar, G.

E-483 Poster**Effect of planar flow casting parameters on the microstructural evolution of Al-Fe-Ni-Cu alloys**

Li, H.-T. (Speaker)

E-491 Poster**Novel Al-based alloys with CMOS-compatibility for wafer bonding**

Boehm, A.¹; Grimm, P. (Speaker)¹; Vogel, K.²; Mainka, C.²; Hofmann, C.²; Gruner, J.³; Kroll, M.³; Clausmeyer, T.³; Hufenbach, J.¹

E-494 Poster**Characterizing Oxide and Passivation Layers for Resistance Spot Welding of 5xxx/6xxx Aluminum Sheets: a Comparative Methodological Approach**

Wi, S.-M. (Speaker)¹; Fezer, A.¹; Hempel, W.²; Weingärtner, T.³; Weihe, S.¹; Werz, M.¹

F: Corrosion and Environment Sensitive Fracture of Al Alloys**F-158** Poster**Formation process of hydrogen-induced voids in Al-Zn-Mg alloys revealed using glow-discharge optical emission spectroscopy**

Odawara, K. (Speaker)¹; Hino, M.¹; Kurosaka, S.²; Okubo, H.²; Horikawa, K.³

F-217 Poster**Resistance to hydrogen embrittlement in Al-Zn-Mg alloys with high Mg/Zn ratio**

Isaka, R. (Speaker)

F-287 Poster**Effect of Mg Content on the Structure and Tribological Properties of Anodic Oxide Films on Aluminum Alloys**

Jiang, X.¹; Gao, C. (Speaker)²; Zhao, J.²; Liu, Z.²; Zou, L.²; Wang, L.³; Lyu, M.³; Huang, R.²; Ma, Y.¹

F-326 Poster**Thickness Control of Steam-Coated AlO(OH) Films on Aluminum Alloys by Atmospheric-Pressure Plasma Pretreatment**

Kanno, R. (Speaker); Kurihara, K.; Serizawa, A.

F-330 Poster**Influence of AlO(OH) crystal Morphology on Thermal Conductivity and Corrosion Resistance of AlN/AlO(OH) Composite Films**

Suzuki, K. (Speaker); Kanno, R.; Kurihara, K.; Serizawa, A.

F-340 Poster**Corrosion Behavior of Al-Si Alloys as a Function of Cooling Rate**

Besenbeck, L. (Speaker)¹; Adjei-Kyeremeh, F.²; Akuata, C.K.¹; Altenbach, C.¹; Raffels, I.²; Yang, F.¹; Zander, D.²

F-484 Poster**Influence of Thermal Aging on the Corrosion Behaviour of EN AW-2618A Aluminium Alloy in a Simulated Condensate Environment**

Jayaram, K.G. (Speaker)

F-493 Poster**Tailoring Corrosion Behavior in Al-Zn-Mg-(Cu) Alloys via Matrix Composition Control and Micro-Galvanic Interactions**

Ishimoto, T. (Speaker); Lee, S.; Manaka, T.; Matsuda, K.; Toriumi, H.; Tsuchiya, T.

G: Deformation Behavior and Mechanical Properties**G-78** Poster**The correlation between microstructural evolution and mechanical properties in friction stir welded AA7068 at varying welding speeds**

Choi, H.N. (Speaker)¹; Lee, S.J.²; Shin, J.H.¹

G-96 Poster**Microstructural refinement in A7050 aluminum alloy processed by severe plastic deformation using compression torsion processing**

Hosono, R. (Speaker)¹; Mihara-Narita, M.¹; Watanabe, Y.¹; Sato, H.¹; Yoshida, H.²

G-121 Poster**Properties of 6xxx alloys with increased secondary aluminum content**

Pfundner, S. (Speaker)¹; Schmid, F.²; Stemper, L.²; Pogatscher, S.¹; Weißensteiner, I.¹

G-135 Poster**Microstructure and Age-Hardening Behavior of Directionally Solidified Al-Mg-Si Alloys**

Shirakami, Y. (Speaker); Takeuchi, S.; Ikeda, K.-i.; Miura, S.

G-140 Poster**Cerium Micro-Addition Effect on Mechanical Anisotropy and Strain Localization Pattern in a Rapidly Solidified Al-Mg Alloy**

Moradi, R. (Speaker)¹; Pouraliakbar, H.¹; Jandaghi, M.²; Gallerneault, M.³; Howells, A.³; Moverare, J.²; Fallah, V.¹

G-186 Poster**The influence on mechanism characteristics and precipitates of Al-Zn-Mg with Cu and Ag addition**

Nguyen, V.H. (Speaker)

G-236 Poster**The influence of Er and Zr microalloying on improving the mechanical properties and recrystallization resistance of Al-Mg-Er-Zr alloys**

Wu, H. (Speaker); Liu, C.; Xiao, X.; Wang, G.; Zhang, Q.

G-416 Poster**Fatigue life assessment of EN AW-2618A across diverse test configurations using the damage parameter ZD**

Radners, J. (Speaker)¹; von Hartrott, P.¹; Han, Y.²; Skrotzki, B.²

G-496 Poster**Effects of Minor Alloying Element Content on Phase Formation and Mechanical Properties of 6xxx-Series Aluminum Alloy Sheets**

Shin, J. (Speaker)

G-506 Poster**5xxx alloys with 10 % Mg: Linking processing-property relationships**

Aster, P.¹; Weidinger, A.¹; Samberger, S.¹; Daniel, S. (Speaker)¹; Schmid, F.²; Pogatscher, S.¹; Weißensteiner, I.¹

H: New Directions in Alloy Design**H-503** Poster**Aluminium Matrix Composites for Lightweight Performance and Supply Chain Efficiency**

Lewis, P. (Speaker)¹; Frehn, A.²; Reetz, B.²; Tarrant, A.¹; Hindson, P.³

I: New Markets and Applications**I-388** Poster**Advantages of rapid solidification processed aluminium RSA-6061 compared with conventional EN AW 6061 T6511 for ultra-precision machining process of optical components**

Rolon, D.A. (Speaker)¹; Lavaqui, F.¹; Schweitzer, L.¹; Senden, R.²

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Ito, A. (Speaker)¹; Ii, S.²; Itoh, G.¹; Kobayashi, J.¹; Kuramoto, S.¹

J-152 Poster**Microstructural observation of aging-treated Al-1.5Cu-0.5Mg (at%) alloy**

Ryota, I. (Speaker); Hai, V.n.; Kenji, M.; Lee, S.; Susumu, I.; Tsuchiya, T.

J-183 Poster**Effect of Additions of Transition Elements (Fe, Mn, and Cu) on Mechanical Properties and Microstructure of Al-Mg-Si Alloys**

Suzuki, Y. (Speaker)¹; Lee, S.¹; Tsuchiya, T.¹; Ahmed, A.²; Ikeno, S.¹; Matsuda, K.¹

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Khan, I.A. (Speaker)

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Microstructure evolution of Al-Mg-Si alloys in early stages of isothermal aging
Tanaka, H. (Speaker)¹; Abe, E.²; Mihara-Narita, M.³; Muto, S.⁴; Okajima, T.⁵; Okamoto, H.¹; Saito, G.⁴; Takata, K.¹

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Montano, M. (Speaker)

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Magnesium removal from aluminium alloy melt using CuO and molten NaCl-KCl-MgCl₂
Yaokawa, J. (Speaker)¹; Hibi, K.¹; Taguchi, R.¹; Minoura, T.¹; Tomita, T.²; Furukawa, Y.²; Inuki, Y.³; Tsutsui, R.⁴

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Kojima, M. (Speaker); Kato, K.; Ono, H.

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Park, J. (Speaker)¹; Lee, M.¹; Jo, S.-h.²; Park, S.³; Lee, S.³; Kim, J.⁴

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Dreisbach, M. (Speaker)¹; Suta, K.¹; Laptyeva, G.²; von Hehl, A.¹

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Arshad, S. (Speaker)

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Yuan, X. (Speaker)

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Salojee, M. (Speaker)¹; Simar, A.²; Trink, B.¹; Uytendhouwen, I.¹; Van Dyck, S.¹

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