C-IX: Behavior of Metals subject to Welding

Draft Agenda of C-IX, Annual Assembly 2026

IX-2937-2026

Author: Hee Jin KIM, Chair of C-IX

Meeting location

Room: Wolf Dietrich 1&2
Salzburg congress
Auerspergstraße 6
5020 Salzburg, Austria

Meeting Schedule

July 13	(Monday)	10:00 ~ 10:20	Opening session
		10:20 ~ 12:30	IX-NF meeting
July 14	(Tuesday)	08:30 ~ 12:30	IX-L meeting
July 15	(Wednesday)	08:30 ~ 18:00	IX-AM meeting jointly with C-I and C-II
July 16	(Thursday)	08:30 ~ 12:10	IX-H meeting
		12:10 ~ 12:30	Summary and Closing session

Intermission and coffee break: 10:00~10:30, No coffee break on Monday

ANTITRUST STATEMENT

It is the policy of the International Institute of Welding (IIW), including Technical Commissions and their participants, to comply fully with antitrust, trade regulation, and anti-competitive laws.

Antitrust laws prohibit agreements or understandings between two or more individuals or businesses to:
- regulate prices or quantities of goods or services;
- allocate customers or territories;
- hinder or limit a competitor or potential competitor's operations;
- unreasonably to restrain business activity; or
- Implement discriminatory pricing or servicing.

All participants in IIW activities should use particular care to avoid improper actions or results, including the appearance of such actions or results. The IIW Secretariat should be consulted if potentially sensitive issues are anticipated or arise.

Further information and guidance can be found in IIW RD-260 Antitrust Guidelines (DOs and DONTs).

Monday, July 13, 2026 (10:00~12:30)

I. Opening and Administration (Chair: Dr. H. J. KIM, vice-Chair: Prof. K. Kadoi)

1. Welcome and apologies
2. Approval of Agenda (IX-2937-2026)
3. Approval of MoM
   - 2025 AA meeting (IX-2899-2025)
   - 2026 Intermediate meeting (IX-2900-2026)
4. Election of C-IX Chair for 2027~2030
   - Attached is the List of National delegates.

II. Technical Presentation of sub-Commission IX-NF: *Non-ferrous materials*
(Chair: Prof. Jean P. Bergman)

1. IX-2901-2026 (IX-NF-81-2026)
Role of anodized layer to weld formation in AA6063-T5 during cold spot forge welding,
I. Kobayashi et al.

2. IX-2902-2026 (IX-NF-82-2026)
Strengthening mechanism in Al-steel dissimilar joint through addition of nickel,
K. T. Suzuki et al.

3. IX-2903-2026 (IX-NF-83-2026)
Improved fatigue properties of Al-Cu laser lap joints via laser beam wobbling,
S. M. Yun et al.

4. IX-2904-2026 (IX-NF-84-2026)
Effect of solution and aging heat treatment on microstructure and properties of narrow gap laser filler wire of thick-walled titanium alloy,
Pengbo Wu et al.

5. IX-2905-2026 (IX-NF-85-2026)
Microstructure and mechanical properties comparison in MIG welded AA6082 produced with heat treatable TiB containing filler metal and conventional aluminum fillers,
Amir Khodabakhshi et al.

6. IX-2906-2026 (IX-NF-86-2026)
ML-Assisted Hot Cracking Evaluation Framework for aluminum alloy Joints,
Zhihang Zhang et al.

Tuesday, July 14, 2026 (08:30~12:30)

III. Technical Presentation of sub-Commission IX-L: *Low alloy steel welds*

(Chair: Prof. Nobert Enzinger)

1. IX-2907-2026 (IX-L-1317-2026)
Hot cracking in high strength steel welds
K. Han, Y. Park, S. Hong

2. IX-2908-2026 (IX-L-1318-2026)
Evaluation of Weldability and Research on Welding Procedure for High-Strength Steel Used in Wind Power
X. Guo, X. Guo, Y. Jiang, W. Fu, Y. Xu

3. IX-2909-2026 (IX-L-1319-2026)
Effect of Ni and Mn Contents on Microstructure and Impact Toughness in CGHAZ of Low Carbon TMCP Steels
J. Choi, S. Yoo, W. Kim, N. Kang

4. IX-2912-2026 (IX-L-1323-2026)
Influence of grain size on the impact toughness of physically simulated heat-affected zone of low-carbon bainitic steels
H. Auvinen, H. Tervo, J. Kömi, J. Sainio, A. Kaijalainen

5. IX-2913-2026 (IX-L-1324-2026)
Effect of filler metal composition on weld toughness of S500 shipbuilding steel
M. Gáspár, J. Kovács, J. Sainio, H. Tervo, V. Javaheri, A. Kaijalainen

6. IX-2914-2026 (IX-L-1325-2026)
Constructive weldability of high thickness P355NH-modified
L. Guilmois, S. Pigaux-Leys, L. Jubin

7. IX-2915-2026 (IX-L-1326-2026)
Heat-affected zone characterization of P460NH and L450M pipeline steels
Á. Pap, Á. Meilinger, M. Gáspár, H. Tervo, A. Kaijalainen

8. IX-2916-2026 (IX-L-1327-2026)
Effect of Weld Proximity on hardness and residual stresses in girth-welded S355 sections
E. Englund, C. R. Mudiyanselage

9. IX-2910-2026 (IX-L-1315-2026)
Distribution and stability of retained austenite in multipass high-strength weld metal,
D. Schrittwieser, H. Pahr, B. Seligmann, D. Obersteiner, S. C. Bodner, O. Glushko, R. Schnitzer

10. IX-2911-2026 (IX-L-1316-2026)
Simulation-based investigation of welding-induced stresses and cracking risk in hermetic electric terminals
J. Puntigam, M. Spoerk, M. Gartner, T. Panner, A. Egger, N. Enzinger

Wednesday, July 15, 2026 (08:30~18:00)

IV. Joint meeting of C-I, C-II and C-IX

'Process-structure property relationship of AM metallic components'

Co-organized by IX-AM, Metallurgy of AM (Chair: Prof. Peter Mayr)

1. IX-2918-2026
Development of a novel hybrid wire–powder DED-Arc plasma system for fabrication of metal matrix composites, *Z. Elsayed, S. Kurian, R. Paiotti, P. Mayr*

2. IX-2919-2026
On the investigation of aluminium thin-wire (< 0.8 mm) wire-arc directed energy deposition,
M. Silmbroth, M. Nimmervoll, B. Streibl, S. Gneiger

3. IX-2920-2026
Influence of active cooling and deposition strategies on wire arc directed energy deposition of 316LSi stainless steel walls, *I. Thomas, M. Zinke, S. Jüttner*

4. IX-2935-2026
Development of a Roller-Integrated WA-DED Process with Molten-Bead Compression for High Speed Deposition Stabilization, *H.J. Son, Y.T. Cho*

5. IX-2917-2026
Microstructure and mechanical performance of functionally graded low-alloy steels produced by tandem wire-arc directed energy deposition,
T. Reindl, C. Hagner, S. Rotzsche, R. Paiotti, J. Vincic, P. Mayr

6. IX-2921-2026
Processability and microstructural evolution of low-transformation-temperature alloys fabricated by laser-directed energy deposition,
J. Konkel, G. Rørvik, T.A. Hassel, M. Svela, V.A. Hosseini, T. Mánik

7. IX-2922-2026
Influence of PWHT on TIG welds on AlSi10Mg alloy produced by selective laser melting additive technology,
P. Mohyla, M. Lindovský, L. Krejčí, I. Hlavatý, J. Kozák, M. Bučko, L. Gembalová, M. Sondel

8. IX-2925-2026
Effect of heat treatment on the microstructures and mechanical properties of 2319/2A14 hybrid aluminum alloy structures additively manufactured by electron beam directed energy deposition,
B. Chang

9. IX-2923-2026 (Invited talk)
Influence of high temperature oxidation on the corrosion behavior of WE43 magnesium scaffolds fabricated by laser powder fusion, *J. Liu, P. Wen, B. Teng*

10. IX-2924-2026
Analysis of the high temperature performance of wire direct energy deposition (DED) grade 91,
T. Melfi, J. Siefert, B. Schaeffer

Thursday, July 16, 2026 (08:30~12:30)

V. Technical Presentation of sub-Commission IX-H: *Weldability of stainless and nickel base alloys* (Chair: Dr. Elin M. Westin)

1. IX-2934-2026
Parallel Dual Laser Beam Welding of DSS 2507 with Dissimilar Thickness
Erika Hodúlová, Naďa Beronská, Daniel Dřímal, Miroslav Čavojský Tomáš Dvorák, Lucia Kopčanová

2. IX-2926-2026
Microstructural and compositional effects on sigma phase precipitation kinetics during additive manufacturing of super duplex stainless steels,
E.M. Westin, D. Schrittwieser, J.Y. Jonsson, S. Wessman, D. Obersteiner, B. Seligmann, T. Fischer, R. Schnitzer

3. IX-2927-2026
A study of the precipitation of chromium nitrides in duplex stainless steel and weld metal using computational thermodynamics.
S. Wessman, E.M. Westin, S. Hertzman

4. IX-2936-2026
Enhancing productivity and cost-efficiency via single-layer superduplex electroslag strip cladding using S32750 strip and alloyed flux,
Claude Bouillot, Caroline Jonckheere, Arnaud Nicolay

5. IX-2929-2026
Clarification of the effect of welding speed on solidification cracking susceptibility in austenitic stainless steel during laser welding. *K. Tomita, Y. Okita, K. Ueda, S. Yang, T. Ito, L. Guoliang, H. Ziyang, K. Marumoto, K. Shinozaki, M. Yamamoto*

6. IX-2930-2026
Influence of alloying elements on hot cracking susceptibility and mechanical properties of high manganese austenitic steel weld metal. *K. Watanabe, S. Yamashita, K. Taniguchi, A. Ando, K. Ueda, H. Hirata*

7. IX-2928-2026
Effect of carbon content on relationship between grain boundary characteristic and liquation cracking susceptibility of Alloy 625.
K. Kadoi, Y. Nakamori, C. Asada, K. Yamada, T. Osuki

8. IX-2932-2026
Mechanism and mitigation of liquation cracking in cast HT700C superalloy welds: A strategy combining surface friction stir processing and welding parameter optimization.
Y. Han

9. IX-2931-2026
Creep strength at 975 °C of deposited metal from difficult-to-weld nickel-based superalloys containing more than 50 vol.% γ' phase.
O.V. Yarovytsyn, M.O. Cherviakov, H.D. Khrushchov, S.O. Voronin, Yu. O. Nikitenko

VI. Summary and Others

1. Summary of technical presentation
   - Number of presentations
   - *WitW* recommendation

2. Administrative matters
   - Resolutions

3. Next meetings
   - 2027 Joint Intermediate Meeting of C-II and C-IX
     March 9-11, 2027
     Welding Technology & Training Center, Lincoln Electric Company, Cleveland, USA

   - 2027 AA meeting
     Bangkok, Thailand.

Note: A separate Agenda will be available for the Joint meeting on Wednesday, including the contributions from C-I and C-II.

NATIONAL DELEGATES of C-IX in 2026

Delegate Name	Country	Signature
	AUSTRALIA	
Norbert ENZINGER	AUSTRIA	
Staf HUYSMANS	BELGIUM	
	CANADA	
Baohua CHANG	CHINA	
	CROATIA	
	CZECH REPUBLIC	
	DENMARK	
Miikka KARHU	FINLAND	
Lauriane GUILMOIS	FRANCE	
Peter MAYR	GERMANY	
Marcell GÁSPÁR	HUNGARY	
Deepak ACHARYA	INDIA	
Marco PALOMBO	ITALY	
Kota KADOI	JAPAN	
	PORTUGAL	
Hee Jin KIM (Chair IIW C-IX)	REPUBLIC OF KOREA	
	ROMANIA	
Vencislav GRABULOV	SERBIA	
	SLOVENIA	
	SPAIN	
Maria Asuncion VALIENTE BERMEJO	SWEDEN	
	SWITZERLAND	
	THAILAND	
Vincent VAN DER MEE	THE NETHERLANDS	
Mustafa TUMER	TURKEY	
Mike DODGE	UK	
Caroline FINK	USA	