C-II: Arc Welding and Filler Metals

Agenda of 79th IIW Annual Assembly 2026

II-2383-2026

Author: Zhuyao ZHANG

Venue: Wolf Dietrich
Salzburg Congress
Auerspergstraße 6
5020 Salzburg
Austria

Meeting Schedule:

Monday, 13 July 2026	14:00 – 14:05	Opening Session
	14:05 – 14:10	IIW Secretariat
	14:10 – 14:20	Presentation of WitW
	14:20 – 18:00	II-A and II-E Meetings
Tuesday, 14 July 2026	14:00 – 18:00	II-E and II-C Meetings
Wednesday, 15 July 2026	*8:30 – 12:30; 14:00 – 18:00 C-I, C-II and C-IX Joint Meeting**	
Thursday, 16 July 2026	14:00 – 15:40	II-C Meeting
	15:40 – 15:50	Summary and Closing
Intermission and coffee break:	15:45 – 16:15	

Comments: Meetings are in person only, not hybrid.
Pre-recorded video presentations will not be accepted except those pre-authorized due to specific reasons.

IIW 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).

Agenda

Monday, 13 July 2026, 14:00 – 18:00		
1. Introduction	**Chair: Zhuyao ZHANG, vice-Chair: Susanne BAUMGARTNER**	
1.1.	Welcome and apologies	
1.2.	Approval of the Agenda	II-2383-2026
1.3.	Commission II Executive Summary Annual Report 2025, by Z. Zhang	II-2381-2025
1.4.	Presentation of IIW Secretariat	Elisabetta SCIACCALUGA
1.5.	Presentation of WitW	Thomas KANNENGIESSER

C-II Subcommission Meetings		
2. II-A: Metallurgy of Weld Metals	**Chair: Thomas KANNENGIESSER**	
2.1.	List of documents of Subcommission II-A, revised July 2026	II-2384-2026 *(II-A-483-2026)*
2.2.	List of members of Subcommission II-A, revised July 2026	II-2385-2026 *(II-A-484-2026)*
2.3.	Working program of Subcommission II-A / 2026-2027, revised July 2026	II-2386-2026 *(II-A-497-2026)*
2.4.	"Determination, Assessment and Quantification of Hydrogen in Multi-pass / Multi-layer Weld Joints by Adapted ISO 3690 Samples" By M. Rhode, K. Erxleben, S. Kaiser, D. Czeskleba, Th. Kannengiesser	II-2387-2026 *(II-A-486-2026)*
2.5.	"Investigation on Thermophysically Simulated Heat-Affected Zones of HSLA Pipeline Steels for Hydrogen Transportation using Hollow-Tensile Test Specimen" By G. Fey, J. Witte, A. Kromm, D. Schroepfer, Th. Kannengiesser	II-2388-2026 *(II-A-487-2026)*
2.6.	"Effect of Electrochemical Hydrogen Charging Conditions on Base Metal and Thermophysically Simulated HAZ for HSLA Pipeline Steels for Hydrogen Transportation" By G. Fey, A. Kromm, Th. Kannengiesser	II-2389-2026 *(II-A-4488-2026)*
2.7.	"Comparative Study on Crack Sensitivity in Hardfacing of Mild Steel using FCAW and MCAW with Additive Micro-Alloy Element" by M. Siriwongwattana, P. Wathannatun, C. Kritthee Lad-het	II-2391-2026 *(II-A-493-2026)*
2.8.	"Weld CCT Diagram Development: Impact of Microalloying on Phase Transformation and Weldability of High-Strength Steels" By N. Schroeder, S. Lee, M. Rhode, A. Kromm, T. Kannengiesser	II-2392-2026 *(II-A-495-2026)*
2.9.	"Effect of Alloying Elements on the Mechanical Properties and Microstructure of Weld Metal in 1.5 GPa-Grade Q&P Steel" By S. H. Hong, G. Bae, J. Moon	II-2393-2026 *(II-A-494-2026)*
2.10.	"Residual Stress and Microstructure Control in Hybrid DED-Arc Manufacturing and Repair of High-Strength Steel Structures" by D. Schroepfer, L. Engelking, A. Kromm, R. Scharf-Wildenhain, A. Haelsig, Th. Kannengiesser, J. Hensel	II-2394-2026 *(II-A-498-2026)*
2.11.	"Correlation between Microstructural Evolution and Mechanical Properties in Aluminum Alloy Butt Welds: Comparative Analysis of Gas Metal Arc Welding and Laser Beam Welding" By M. G. Kang, T. S. Lim, C. Geffers, U. Reisgen	II-2395-2026 *(II-A-499-2026)*

3. II-E: Standardizations and Applications of Filler Metals	**Chair: Teresa MELFI**
3.1. List of documents of Subcommission II-E, revised July 2026	II-2416-2026 *(II-E-864-2026)*
3.2. List of members of Subcommission II-E, revised July 2026	II-2417-2026 *(II-E-865-2026)*
3.3. Working program of Subcommission II-E / 2026-2027, revised July 2026	II-2418-2026 *(II-E-866-2026)*
3.4. "Boride-Induced Liquation Cracks under Nonequilibrium Heating in Novel 9Cr Martensitic Heat-Resistant Steel" By T. Huang, X. Wang, W. Zhang, D. Zhu	II-2409-2026 *(II-E-857-2026)*
3.5. "Porosity in Welded Zinc Coated Advanced High Strength Steels and its Effects on Mechanical Properties" By Eder A. Gallegos and Rafael Colás	II-2415-2026 *(II-E-862-2026)*
3.6. "Study on the Microstructure and Properties of CoCr Alloy Deposited by Arc Deposition on Ni-based Alloy" By S. Huang	II-2419-2026 *(II-E-867-2026)*

Tuesday, 14 June 2025, 14:00 – 18:00	
3. II-E: Standardizations and Filler Metal Applications (cont.)	**Chair: Teresa MELFI**
3.6. "Stress-Optimized Repair Welding Concept for High-Strength Thick Sheet Offshore Steel Connections" By L. Reichel, D. Schroepfer, A. Kromm, Th. Kannengiesser	II-2410-2026 *(II-E-858-2026)*
3.7. "Lifetime Extension of Transverse Stiffeners by a LTT Welding Consumable" By M. Huebner, R. Banaschik, A. Kromm, M. Madia, Th. Kannengiesser	II-2412-2026 *(II-E-859-2026)*
3.8. "Reinforcement of Old Mild Steel Structures using Fine-Grained Steel with Basic and Austenitic Filler Metal" by M. Uhlig, M. Homeyer, N. Schroeder, K. Hoefer, Th. Kannengiesser, R. Stroetmann, J. Hensel	II-2414-2026 *(II-E-861-2026)*
3.9. "Microstructural and Corrosion Behavior of Dissimilar Weld Joint between SA-106 Gr B and SA-TP316/316L suing ER309LSi for Corrosion Allowance Estimation in ASME B31.3 Pipe Design" By Thanawat Chanasavasook	II-2408-2026 *(II-E-863-2026)*
3.10. "Standardization Updates" By T. Melfi	II-2407-2026 *(II-E-856-2026)*

4. II-C: Testing and Measurement of Welds	**Chair: Carolin FINK**
4.1. List of documents of Subcommission II-C, revised July 2026	II-2402-2026 *(II-C-702-2026)*
4.2. List of members of Subcommission II-C, revised July 2026	II-2405-2026 *(II-C-705-2026)*
4.3. Working program of Subcommission II-C, revised July 2026	II-2406-2026 *(II-C-706-2026)*

4.4.	"Continuous Cooling Transformations and Microstructural Characterization of Simulated Welding and Wire-Arc Directed Energy Deposition Heat Affected Zones in an Ultrahigh-Strength Steel" By N. Max Vega Michalak and B. T. Alexandrov	II-2397-2026 *(II-C-696-2026)*
4.5.	"Effect of Reaustenization on Grain Refinement and Mechanical Properties in Multipass Fe–10Ni Weld Metal" By S. Matan and B. T. Alexandrov	II-2398-2026 *(II-C-697-2026)*
4.6.	"Assessing Printability of Fe-35Cr-45Ni Based Filler Metals during Wire Arc Additive Manufacturing" By G. Melaragno, S. Hixson, B. T. Alexandrov	II-2399-2026 *(II-C-698-2026)*
4.7.	"Effect of Microstructure on Hydrogen Embrittlement Susceptibility in Pipeline Steel Welds" By F. R. Consuegra and B. T. Alexandrov	II-2400-2026 *(II-C-699-2026)*

Thursday, 16 July 2026, 14:00 – 15:40		
4.	**II-C: Testing and Measurement of Welds (cont.)**	**Chair: Carolin FINK**
4.8.	"Quantification of the Effect of Remelts on Ductility-Dip Cracking and Dynamic Recrystallization Using Imposed Mechanical Energy" By A. Singh, M. Pacenta, Y. Luo, M. J. Mills, B. T. Alexandrov	II-2396-2026 *(II-C-695-2026)*
4.9.	"Composition Optimization of ZERON 100X Solid Wire for Welding Super Duplex Stainless Steels to Further Improve Pitting Corrosion Resistance of Welds" By G. Byrne and Z. Zhang	II-2401-2026 *(II-C-701-2026)*
4.10.	"Revisiting Orientation Relationships Across Dissimilar Weld Interfaces" By R. Li, J. Hochanadel, J. Wesstradt, B. Panton, C. Fink, J.C. Lippold	II-2403-2026 *(II-C-703-2026)*
4.11.	"Weldability of Low-Manganese Filler Metals: Mech Mechanical Properties and Solidification Cracking in MAG Welding" By L. Guilmois, S. Pigaux-Leys, L. Jubin	II-2404-2026 *(II-C-704-2026)*

5. Summary and Closing (15:40 – 15:50)	**Chair: Zhuyao ZHANG**
5.1.	**Summary of technical presentations and recommendations** - WitW recommendations
5.2.	**Administrative matters** - Resolutions
5.3.	**Next meetings** - 2027 C-II and C-IX Joint Intermediate Meetings Welding Technology & Training Center, Lincoln Electric Company, Cleveland, USA, March 9-11, 2027. - 2027 IIW Annual Assembly Bangkok, Thailand.
5.4.	**AOBs and closing remarks**

* Note: A separate Agenda is available for the Joint meeting on Wednesday 15 June 2026, including contributions from C-I, C-II and C-IX.

Leadership of Commission II

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Chair	Zhuyao ZHANG	UK	zzhang@lincolnelectric.eu zhuyao.zhang@iiwelding.net
Vice-Chair	Susanne BAUMGARTNER	Austria	susanne.baumgartner@voestalpine.com susanne.baumgartner@iiwelding.net
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Chair	Thomas KANNENGIESSER	Germany	thomas.kannengiesser@bam.de thomas.kannengiesser@iiwelding.net
II-C: Testing and Measurement of Welds			
Chair	Carolin FINK	USA	fink.242@osu.edu carolin.fink@iiwelding.net
II-E: Standardization and Filler Metal Applications			
Chair	Teresa MELFI	USA	teresa_melfi@lincolnelectric.com teresa.melfi@iiwelding.net

Current National Delegates of Commission II (as of June 2026)

Delegate Name	Country
Madeleine DUTOIT	AUSTRALIA
Susanne BAUMGARTNER	AUSTRIA
Christoph GERRITSEN	BELGIUM
Xiao GUO	CHINA
Mika SIREN	FINLAND
David PLELAN	FRANCE
Thomas KANNENGIESSER	GERMANY
Gabor FEHERVARI	HUNGARY
Deepak ACHARYA	INDIA
Pietro CONSONNI	ITALY
Yutaka SATO	JAPAN
Jerzy NIAGAJ	POLAND
Namhyun KANG	REPUBLIC OF KOREA
Horia DASCAU	ROMANIA
Stefan SMETANA	SLOVAKIA
Vahid HOSSEINI	SWEDEN
Vincent VAN DER MEE	THE NETHERLANDS
Emel TABAN	TURKEY
Zhuyao ZHANG	UK
Teresa MELFI	USA