

The 8th International Workshop on Titanium Aluminides (IWTA2026)
(2026, June 14-19)

June 14 (Sun.)	17:00-18:00	Registration				
	18:00-20:00	Welcome reception				
June 15 (Mon.)	08:50-09:00	Opening				
		Session 15-1 Alloy Development 1			Chairperson: Bernard P. Bewlay	
	09:00-09:40	15-1-1	Masao Takeyama	Institute of Science Tokyo	Physical metallurgy of titanium aluminides - How the alloys should be designed in corporation with fabrication processing? -	Keynote
	09:40-10:10	15-1-2	Jean-Philippe Monchoux	CEMES, CNRS	Design of γ -TiAl alloys based on defect engineering approaches	Invited
	10:10-10:30	15-1-3	Ryosuke Yamagata	Chiba University	Development of integrated inverse design systems for TiAl alloys	Oral
	10:30-11:00	Coffee break				
		Session 15-2 Alloy Development 2			Chairperson: Rui Yang	
	11:00-11:30	15-2-1	David Holec	Montanuniversität Leoben	TiAl-based complex concentrated alloys: Lessons learned through atomistic modeling	Invited
	11:30-11:50	15-2-2	Keiji Kubushiro	IHI Corporation	Beyond current TiAl alloys: alloy design for higher temperature capability and manufacturability	Oral
	11:50-12:10	15-2-3	Yutaro Ota	IHI Corporation	Breaking Zr segregation in powder TiAl alloys for enhanced high-temperature performance	Oral
	12:10-12:30	15-2-4	Yang Yang	Thermo-Calc Software AB	Application of CALPHAD-based computational tools to the design and process optimization of gamma-TiAl alloys	Oral
	12:30-14:00	Lunch				
		Session 15-3 Microstructure 1			Chairperson: Florian Pyczak	
	14:00-14:30	15-3-1	Takayoshi Nakano	The University of Osaka	Control of microstructure and crystallographic texture in powder bed fusion additive manufacturing of metals and intermetallics	Invited
	14:30-15:00	15-3-2	Li Wang	Central South University	Splitting-driven carbide evolution and its strengthening effect in γ -TiAl alloys at elevated temperatures	Invited
	15:00-15:20	15-3-3	Frederic Habiyaremye	CEMES, CNRS	Investigation of oxygen diffusion and its influence on deformation mechanisms in a γ -TiAl alloy exposed at 700°C	Oral
	15:20-15:40	15-3-4	Thomas Vaubois	Safran Tech	Influence of oxygen and refractory elements on phase equilibria in TiAl alloys	Oral
	15:40-16:10	Coffee break				
		Session 15-4 Manufacturing and Processing 1			Chairperson: Hiroyuki Y. Yasuda	
	16:10-16:40	15-4-1	Kazuhiro Mizuta	AeroEdge Co., Ltd.	Industrialization of manufacturing process for TiAl turbine blade and future repair technology using directed energy deposition	Invited
16:40-17:10	15-4-2	Hongsheng Ding	Harbin Institute of Technology	Recent progress on fabrication of directionally solidified TiAl-based alloys using water-cooling electromagnetic cold crucible	Invited	
17:10-17:30	15-4-3	Yuichiro Koizumi	The University of Osaka	Multi-scale microstructure control of Ti-Al alloys for strengthening and functional hierarchical nanoporous architectures	Oral	
17:30-17:50	15-4-4	Jack Krohn	The University of Sheffield	Novel solid-state approaches for complex near-net shape TiAl based geometries	Oral	

June 16 (Tue.)		Session 16-1 Alloy Development 3			Chairperson: Masao Takeyama	
	09:00-09:40	16-1-1	Rui Yang	Institute of Metal Research, Chinese Academy of Sciences	Alloy and process development for precision casting of titanium aluminide components	Keynote
	09:40-10:10	16-1-2	Seong-Woong Kim	Korea Institute of Materials Science	Development of TiAl alloys: A future light-weight material for extreme condition	Invited
	10:10-10:30	16-1-3	Andreas Stark	Helmholtz-Zentrum Hereon	How rapid heating and quenching cycles influence phase transformations in advanced γ -TiAl alloys	Oral
	10:30-11:00	Coffee break				
		Session 16-2 Alloy Development 4 and Microstructure 2			Chairperson: Petra Spoerk-Erdely	
	11:00-11:20	16-2-1	Shiqiu Liu	Hangzhou City University	Research progress on nanotwinned TiAl alloy	Oral
	11:20-11:40	16-2-2	Kewei Zhang	Northwestern Polytechnical University	Achieving a balance between strength and ductility of TiN ceramic particles reinforced Ti ₂ AlNb matrix composites	Oral
	11:40-12:00	16-2-3	Chae-Won Kim	Korea Institute of Materials Science (KIMS)	Effect of W content on the extreme high-temperature tensile properties in the novel TiAl alloys	Oral
	12:00-12:20	16-2-4	Kota Hashimoto	Institute of Science Tokyo	Effect of oxygen addition on the finite-temperature phase stability of Ti-Al alloys from first principles	Oral
	12:20-12:30	Group photo				
	12:30-14:00	Lunch				
		Session 16-3 Synchrotron & Manufacturing and Processing 2			Chairperson: Jean-Philippe Monchoux	
	14:00-14:30	16-3-1	Hideyuki Yasuda	Kyoto University	Characterization of the hcp dendrite and solidification path in Ti-Al alloys by time-resolved tomography and diffractometry	Invited
	14:30-15:00	16-3-2	Petra Spoerk-Erdely	Graz University of Technology	Phase transformations in β -stabilized γ -TiAl based alloys: Crystallographic insights from in-situ synchrotron experiments	Invited
15:00-15:30	16-3-3	Florian Pyczak	Helmholtz-Zentrum Hereon	Characterization of additive manufacturing processes of TiAl by in situ synchrotron radiation	Invited	
15:30-15:50	16-3-4	Ken Cho	The University of Osaka	Control of unique nanoscale microstructures in TiAl alloys via metal additive manufacturing	Oral	
15:50-17:50	Poster session					
June 17 (Wed.)	08:30-18:00	Excursion (Spring-8 & Himeji castle)				
	18:30-21:00	Banquet (Restaurant: Osaka Geihinkan)				

June 18 (Thu.)		Session 18-1 Application 1			Chairperson: Pierre Sallot	
	09:00-09:40	18-1-1	Bernard P. Bewlay	GE Aerospace	Titanium aluminide alloy technology in the aircraft engine industry - The second decade	Keynote
	09:40-10:10	18-1-2	Yoshihiko Koyanagi	Daido Steel Co., Ltd.	Development of alloys and manufacturing technology for TiAl alloy turbine rotors for automotive turbochargers	Invited
	10:10-10:30	18-1-3	Myriam Sleiman	Aeris greenTec	High temperature TiAl-based alloys for implementation in an advanced turbocharged rotor engine	Oral
	10:30-11:00	Coffee break				
		Session 18-2 Application 2 and Environmental Protection			Chairperson: Melissa Allen	
	11:00-11:30	18-2-1	Pierre Sallot	Safran Tech	γ -TiAl alloys for aeronautical applications: Future requirements and challenges associated with industrial implementation	Invited
	11:30-11:50	18-2-2	Toshimitsu Tetsui	National Institute for Materials Science	The effect of O concentration on the practical properties of cast TiAl4822 for jet engine blades and feasibility study on reusing machining chips	Oral
	11:50-12:10	18-2-3	Maria Tsoutsouva	DMAS, ONERA, Université Paris Saclay	Alloying-driven oxidation resistance enhancement in TiAl-based alloys	Oral
	12:10-12:30	18-2-4	Nadine Laska	German Aerospace Center (DLR)	Synthesis and corrosion behavior of protective coatings produced by magnetron sputtering for γ -titanium aluminides	Oral
	12:30-14:00	Lunch				
		Session 18-3 Mechanical Properties 1			Chairperson: Jose M. San Juan	
	14:00-14:30	18-3-1	Mauro Filippini	Politecnico di Milano	Fracture toughness assessment of γ -TiAl alloys: challenges in applying ASTM standards	Invited
	14:30-15:00	18-3-2	Wei Chen	AVIC Manufacturing Technology Institute	Fatigue behavior of TiAl manufactured by electron beam melting	Invited
	15:00-15:20	18-3-3	Jonathan Paul	Helmholtz Zentrum Hereon	Environmental embrittlement of TiAl after high temperature exposure: Ingress of hydrogen during the exposure treatment	Oral
	15:20-15:40	18-3-4	Yutaro Oki	Daido Steel Co., Ltd.	Hydrogen effect on the mechanical properties of cast titanium aluminide alloy DATR-TA2	Oral
	15:40-16:10	Coffee break				
		Session 18-4 Mechanical Properties 2			Chairperson: Mauro Filippini	
	16:10-16:40	18-4-1	Jose M. San Juan	University of the Basque Country (UPV/EHU)	Comparative analysis of creep behavior in γ -TiAl intermetallic alloys using mechanical spectroscopy	Invited
	16:40-17:00	18-4-2	Maria L. Nó	University of the Basque Country (UPV/EHU)	High-temperature relaxation processes in a new Ti-Al-W intermetallic alloy produced by spark plasma sintering	Oral
17:00-17:20	18-4-3	Yingchun Tang	Helmholtz-Zentrum Hereon	Ab initio prediction of deformation mode transitions in γ -TiAl-TM alloys	Oral	
17:20-17:40	18-4-4	Vipul Gupta	Helmholtz-Zentrum Hereon	Literature-data driven exploration of creep mechanisms in γ -TiAl alloys	Oral	

June 19 (Fri.)		Session 19-1 Manufacturing and Processing 3			Chairperson: Ken Cho	
	09:00-09:30	19-1-1	Tadayuki Hanada	Mitsubishi Heavy Industries Aero Engines	Evaluation of impact deformation and fracture characteristics of TiAl using the preloaded split hopkinson bar method	Invited
	09:30-09:50	19-1-2	Kentaro Shindo	Mitsubishi Heavy Industries, Ltd	Effect of Ni addition on sinterability of TiAl alloy powders for metal injection molding	Oral
	09:50-10:10	19-1-3	Kazuki Hanami	Osaka Yakin Kogyo Co.,Ltd.	Evaluation of HIP and heat treatment in a single process for TiAl-based alloys in HIP equipment	Oral
	10:10-10:30	19-1-4	Fumio Tooyama	Kiguchi Technics, Inc.	A new powder-metallurgy route for TiAl alloys and their mechanical/practical evaluations	Oral
	10:30-11:00	Coffee break				
		Session 19-2 Microstructure 3			Chairperson: Ryosuke Yamagata	
	11:00-11:30	19-2-1	Lin Song	Northwestern Polytechnical University	Deformation mechanism of ordered ω_0 phase in high Nb-TiAl alloys	Invited
	11:30-11:50	19-2-2	Ozkan Gokcekaya	The University of Osaka	The effect of process parameters on microstructural evolution and mechanical properties of β -solidifying γ -TiAl alloy fabricated by laser powder bed fusion	Oral
	11:50-12:10	19-2-3	Sung-Hyun Park	Korea Institute of Materials Science (KIMS)	Control of lamellar orientation in γ -TiAl alloys fabricated by laser powder bed fusion	Oral
	12:10-12:30	19-2-4	Raashid Firoz	Indian Institute of Technology Kharagpur (IIT Kharagpur)	Novel ultrahard nano-lamellar ω phase in Nb-rich γ -TiAl alloys	Oral
	12:30-12:40	Closing				
12:40-14:00	Lunch					