

## **Technical Programme**

Day 1, 15 <sup>th</sup> September, 2017					
	Room 113, Wentian Hall, Hohai University				
	Opening ceremony				
	Chairman: Donghui Yang, Hohai University				
8:10~8:50	1. Welcome message: Huiping Tang, Chair of MetFoam 2017				
	2. Welcome message: President of Ho				
	3. Group photos				
	Plenary lectures	(Room 113)			
	Chairman: J.	Banhart			
8:50~9:20		T. J. Lu			
0:50~9:20	Recent development in ligh	tweight multifu	inctional porous metals		
9:20~9:50	Hid	deo Nakajima			
9.20~9.30	Fabrication, Properties and Application	ations of Porou	s Metals with Directional Pores		
9:50~10:15	Coffee break				
Room 102, Wentian Hall Room 113, Wentian Hall					
	Metal Foam		Powder Metallurgy		
(	Chairman: N. Babcsán	Cha	irman: David Dunand		
	Keynote Talk		Keynote Talk		
	Bo-Young Hur		Yuyuan Zhao		
	Advanced Manufacturing Process		Properties of Metal Foams		
10:15~10:40	and Viscoelastic Behavior of	10:15~10:40	Manufactured by P/M Based		
	Mechanical Properties in Metal		Space Holder Methods		
	Foam		Page 43		
	Page 33				
	Keynote Talk		Keynote Talk		
	Xiangyang Zhou		Faming Zhang		
10:40~11:05	Low-cost preparation of aluminum	10:40~11:05	Porous Titanium from		
	foam and its application in field of	10110 11100	macroporous to nonoporous		
	electrochemical energy-saving		structures		
	Page 34		Page 43		



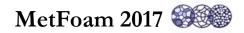
	Invited Talk		Invited Talk	
	Sompong Srimanosaowapak		J.Z. Wang	
11:05~11:25	Production of Open Cell Aluminum	11:05~11:25	Sintering mechanism of stainless	
	Foams with Different Porosity		steel fiber porous materials	
	Page 34		Page 44	
	Invited Talk		Invited Talk	
	Zhuokun Cao		Peizhong Feng	
11.35 11.45	Ambient Pressure: an Important	11:25~11:45	Porous Aluminide Intermetallic	
11:25~11:45	Influencing Factor on Cell Structure	11:25~11:45	Compounds fabricated by	
	Control of Aluminum Foams		Thermal Explosion Mode	
	Page 35		Page 44	
	Omal a constant		Oral presentation	
	Oral presentation		<b>Kunming Yang</b>	
	C. Domínguez		High strain rate dynamic	
11:45~12:00	Surface modification and biological	11:45~12:00	compressive properties and	
	behavior of porous titanium implants		deformation behavior of	
	in partial bone replacement		CNT/Al composite foams	
	Page 35		Page 45	
12:00~13:30		Lunch		
	Plenary lectures (Room 113):	Chairman: Hu	niping Tang	
	Yucong Wang			
13:30~14:00	Material Technology Challenges and Opportunities for Automotive Industry:			
	Functional a	nd Structural N	Materials	
	Wa	anzhong Kang		
14:00~14:30	Application Demands for Porous Metal in Petrochemical and Coal Chemical			
		Industry		
14:30~14:35	Break			
]	Room102, Wentian Hall	Ro	om 113, Wentian Hall	
	Nanoporous structures	cations of porous metals		
(	Chairman: Zhaoping Lu	Cha	irman: Yucong Wang	
	Keynote Talk: Qing Jiang		Keynote Talk: N. Babcsán	
14:35~15:00	High rate and high capacity	14:35~15:00	Closed cell aluminum foams	
14:35~15:00	nanoporous electrodes	14.00 10.00	what should we produce and sell	
	Page 54		Page 57	



	Keynote Talk		Invited Talk	
	Yi Ding		Zhongliang Shi	
	Dealloyed nanoporous Metals for	45.00.45.40	A review of open-cell metal	
15:00~15:25	Fuel Cell Technologies	15:00~15:20	foams and their wider	
	Page 54		engineering applications	
			Page 57	
	Oral presentation		Invited talk	
	Ning Wang		K. Kitazono	
15.25.15.40	Nucleation and growth of	15 20 15 40	Impact energy absorbing system	
15:25~15:40	nanoporous copper by chemical	15:20~15:40	for space lander using	
	dealloying of Cu-Y metallic glasses		hemispherical open-cell porous	
	Page 55		aluminum Page 61	
	Oral presentation		Oral presentation	
	Karen Chen-Wiegart		Mohammed Shbeh	
15:40~15:55	3D Morphological and Chemical	15:40~15:55	Bio-functionalised Titanium	
15:40~15:55	Evolution of Nanoporous Stainless		Foams for Biomedical	
	Steel by Metallic Melt Dealloying		Applications	
	Page 55		Page 58	
	Oral presentation	15:55~16:10	Oral presentation	
	Linkai Guo		X.H. Nguyen	
15:55~16:10	Shock response of nanoporous		A proton exchange membrane	
	copper		fuel cell with a Shellular	
	Page 56		structure Page 59	
16:10~16:25		Coffee break		
,	Room102, Wentian Hall	Ro	om 113, Wentian Hall	
	Gasar Process	Applications of porous metals		
	Chairman: Qing Jiang		Chairman: Hongjie Luo	
	Keynote Talk		Keynote Talk	
	Yuan Liu		L.P. Lefebvre	
42	Solidification velocity scope for		Properties of Titanium Foams	
16:25~16:50	coupled growth of solid/gas two	16:25~16:50	for Orthopedic Applications	
	phases in Gasar process		Page 59	
	Page 63			



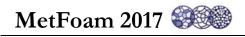
	Keynote Talk		Keynote Talk
	Qinglin Jin	44 -0 4-4-	Nihad Dukhan
16 50 18 15	Fabrication of ordered porous		Metal-Foam Bipolar Plate for
16:50~17:15	Cu-Cr alloy	16:50~17:15	PEM Fuel Cells: Simulations
	Page 63		and Preliminary Results
			Page 60
	Oral presentation		Keynote Talk
	Haijun Jin		Yinjiang Wu
17.15 17.20	The surface effect on the strength	17:15~17:40	Research Progress of Sintered
17:15~17:30	of nanoporous gold	17:15~17:40	Porous Metal and Its
	Page 63		Application in Filtration and
			Separation Industry Page 60
	Oral presentation	17:40~18:00	Invited Talk
	Siyu Wei		Keju Ji
17:30~17:45	Simulated mechanical behavior		Functional applications of metal
	around nano holes of nanoporous		foam structures with different
	copper Page 64		surface wettability Page 61
	Oral presentation		Oral presentation
	Chuanyu Cui		Ming Chen
17:45~18:00	Sliding properties of the lotus-type	18:00~18:15	The application of aluminum
	porous copper impregnated with		foam and market analysis in
	solid lubricants Page 64		China Page 61
	Oral presentation		
	Huawei Zhang		
18:00~18:15	Heat Transfer Performance of		
16:00~16:15	Directional Solidified Gasar		
	Porous Copper Microchannel		
	Heatsink Page 65		



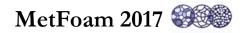
Day 2, 16 <sup>th</sup> September, 2017				
	Room 113, Wentian Hall, Hohai University			
Plenary lectures				
	Chairman: Louis-Pl	hilippe Lefebvi	re	
8:00~8:30	Huiping Tang			
a:00~a:30	Recent development in sintered porous metal materials			
0.20 0.00	David Dunand			
8:30~9:00	Metal Micro-lattices by Reduction a	nd Sintering o	f 3D-Printed Oxide Particle Inks	
0.00 0.20	Francis	co Garcia-Moi	reno	
9:00~9:30	In-situ X-ray tomoscopy: Insi	ghts into the ev	volution of liquid Al foams	
	7	<b>Chaoping Lu</b>		
9.30~10:00	Development of high-performance	nanoporous m	etals and their composites based	
	on 1	netallic glasses	<b>S</b>	
10:00~10:15		Coffee break		
]	Room102, Wentian Hall Room 113, Wentian Hall			
	Additive manufacturing	Pro	perties of porous metals	
Cl	nairman: Bo- Young Hur	Cha	irman: Hideo Nakajima	
	Voymoto Tolk		Keynote Talk	
	Keynote Talk  Kuznetcov P.A.		Weidong Song	
		10:15~10:40	Mechanical properties of	
10:15~10:40	Properties of energy absorbing thin walled honeycomb structures		additively manufactured	
	walled honeycomb structures produced by additive manufacturing		Ti-6Al-4V micro-lattice	
	Page 66		structures under static and	
	1 age 00		dynamic loadings Page 69	
	Keynote Talk		Keynote Talk	
	Lauramaria Echeverri		Hao Du	
10:40~11:05	3D printing + casting simulation to	10:40~11:05	Surface modification on	
	obtaining metal foams with		lotus-type porous copper by	
	controlled morphology Page 66		metallic coatings Page 69	
	Invited Talk		Invited Talk	
11:05~11:25	Hyeji Park	11:05~11:25	Viviana Posada Pérez	
11.05~11.25	Synthesis and Mechanical Properties	11:05~11:25	Human bone inspired design of	
	of 3D-Printed Co-Based Superalloy		an Mg based foam Page 70	



	Microlattices Page 67			
	Oral presentation		Oral presentation	
	Cédric Septet		Masoud Gole stanipour	
11:25~11:40	Effective thermal and fluid flow	11:25~11:40	Investigation on high-velocity	
11:25~11:40	properties of Lattice structure	11:25~11:40	perforation behavior of Al/SiCp	
	produced by additive manufacturing		composite foam core sandwich	
	Page 67		panels Page 71	
	Oral presentation		Oral presentation	
	H.T. Li		Hao Lin	
11:40~11:55	Fabrication, structure and property of	11:40~11:55	A novel method for preparation	
	copper foam		of aluminum foam sandwich	
	Page 67		panels Page 71	
11:55~13:30		Lunch time		
]	Room102, Wentian Hall	Ro	om 113, Wentian Hall	
	Powder Metallurgy		Metal Foam	
Chairm	an: Francisco Garcia-Moreno		Chairman: Hao Du	
	Keynote Talk	13:30~13:50	Invited Talk	
	Olaf Andersen		Robert Baumann	
13:30~13:55	Manufacturing of cellular metals		Rapid, precise and slice - remote	
13:30~13:33	from carat gold alloys		laser cutting for open cell	
	Page 45		aluminum and steel foams	
			Page 36	
	Invited Talk		Invited Talk	
	Xiaobo Ji		M. Malekjafariani	
13:55~14:15	Electrochemical Cathodic Corrosion:	13:50~14:10	Manufacturing of open-cell	
13:35~14:15	an Approach to Prepare Porous	15:50~14:10	regular aluminum foam via	
	Metallic Powder Materials		investment casting method based	
	Page 46		on Kelvin model Page 36	
	Oral presentation		Invited Talk	
	Jian Xiao		Thomas Hipke	
14:15~14:30	Progress in pore structure control of	14:10~14:30	Sandwich manufacturing with	
14:15~14:50	titanium foam	14:10~14:30	foam core and aluminum face	
	Page 51		sheets – a new process without	
			rolling Page 37	



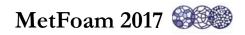
	Oral presentation		Oral presentation
14 20 14 45	Mosalagae Mosalagae	14:30~14:45	Wenzhan Huang
	Characterization of Porous Copper		Magnesium-based foam
14:30~14:45	Tapes Produced by Lost Carbonate		biomaterials and their related
	Sintering Applied to Tape Casting		properties
	Page 47		Page 37
	Oral presentation		Oral presentation
	Xinyang Jiao		Yukun An
14:45~15:00	Studies on the pore formation	14:45~15:00	Fabrication of aluminum foams
14:45~15:00	mechanism of porous TiAl <sub>3</sub>	14:45~15:00	stabilized and enhanced by
	intermetallics via different heating		graphene nanosheets
	rates Page 48		Page 38
	Oral presentation		Oral presentation
	Yihao Du		Han Wang
15:00~15:15	The relationship between mechanical	15:00~15:15	The fabrication and compression
13.00~13.13	properties and porous structure of		investigation of the ordered
	cancellous bone		porous aluminum with cubic
	Page 48		pores Page 38
15:15~15:35		Coffee break	
	Room102, Wentian Hall		om 113, Wentian Hall
			om 113, Wentian Hall  Metal Foam
]	Room102, Wentian Hall	Ro	
]	Room102, Wentian Hall  Powder Metallurgy	Ro	Metal Foam
]	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen	Ro	Metal Foam Chairman: Yuan Liu
C	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk	Ro	Metal Foam Chairman: Yuan Liu Oral presentation
]	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos	Ro	Metal Foam Chairman: Yuan Liu Oral presentation Ningzhen Wang
C	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer	Ro	Metal Foam Chairman: Yuan Liu Oral presentation Ningzhen Wang Comparison of aluminum foams
C	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer composite produced by cold	Ro	Metal Foam Chairman: Yuan Liu Oral presentation Ningzhen Wang Comparison of aluminum foams prepared by different routes
C	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer composite produced by cold extrusion for structural applications	Ro	Metal Foam Chairman: Yuan Liu Oral presentation Ningzhen Wang Comparison of aluminum foams prepared by different routes using X-ray tomography
C	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer composite produced by cold extrusion for structural applications  Page 49	Ro	Metal Foam Chairman: Yuan Liu Oral presentation Ningzhen Wang Comparison of aluminum foams prepared by different routes using X-ray tomography Page 39
15:35~15:55	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer composite produced by cold extrusion for structural applications  Page 49  Invited talk	Ro () 15:35~15:50	Metal Foam Chairman: Yuan Liu  Oral presentation Ningzhen Wang Comparison of aluminum foams prepared by different routes using X-ray tomography Page 39  Oral presentation
C	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer composite produced by cold extrusion for structural applications  Page 49  Invited talk  Xudong Yang	Ro	Metal Foam Chairman: Yuan Liu Oral presentation Ningzhen Wang Comparison of aluminum foams prepared by different routes using X-ray tomography Page 39 Oral presentation Quanzhan Yang
15:35~15:55	Room102, Wentian Hall  Powder Metallurgy  hairman: Olaf Andersen  Invited talk  Juan Lobos  Porous structure in metal/polymer composite produced by cold extrusion for structural applications  Page 49  Invited talk  Xudong Yang  Elevated temperature compressive	Ro () 15:35~15:50	Metal Foam Chairman: Yuan Liu  Oral presentation Ningzhen Wang Comparison of aluminum foams prepared by different routes using X-ray tomography Page 39  Oral presentation Quanzhan Yang The Processing and



	Oral presentation		Oral presentation
	Fan Deng	1607 1600	Pamidi Venkateswarlu
	Influence of Cu on the formability		Processing of aluminum foams
16:15~16:30	and pore structure of Al-Si foam	16:05~16:20	with and without particles
	prepared by powder compact route		Page 40
	Page 50		
	Oral presentation		Oral presentation
	T.R. Neu		A. Izadpanahi
16:30~16:45	Role of compaction on foaming of	16:20~16:35	Flux-less stir soldering of
	aluminum precursors		Al-plate to aluminum foam
	Page 50		Page 40
	Oral presentation		Oral presentation
	Xiaolong Liang		Shenglin Li
16:45~17:00	Preparation of porous lead by	16:35~16:50	Thermodynamic analysis of the
	infiltration casting		growth of gas pore from a gas
	Page 51		saturated melt Page 40
	Oral presentation		Oral presentation
	Xiaotong Lu	16:50~17:05	Paul H. Kamm
17:00~17:15	Porous titanium fabricated by a		Time-resolved X-ray
17.00~17.13	combination of vacuum distillation		tomography of pore generation in
	and sintering process		Al alloy foams
	Page 51		Page 40
	Oral presentation		Oral presentation
	Asuka Suzuki		Jin Meiling
17:15~17:30	Anchor bonding between Al and resi	17:05~17:20	Fabrication of array micro-hole
	n utilizing interpenetrating phase lay		in aluminum alloy
	er		Page 41
	Page 52		
	Oral presentation		Oral presentation
	Ulrich Krupp		Yanan Liu
	Structural Loading of Cellular		In-situ synthesis of highly porous
17:30~17:45	Metals: Damage Mechanisms and	17:20~17:35	FeAl/Al <sub>2</sub> O <sub>3</sub> composite by
	Standardization Concepts		thermite-reaction-assisted
	Page 46		combustion synthesis
			Page 41



17:45~18:00	Oral presentation Jean Paul Allain Nanostructure formation on porous and foam metals by directed irradiation synthesis (DIS) for smart biomaterials Page 52	17:35~17:50	Oral presentation Philipp Rudolf von Rohr Porous metals as structured tubular reactors Page 42
18:00~18:20		Poster time	
18:30	Junheng Hall of Hohai Universit	Banquet y Internationa	l Academic Exchange Center



Day 3, 17 <sup>th</sup> September, 2017			
	Room102, Wentian Hall,  Properties of porous metals  Chairman: Qinglin Jin	Room 113, Wentian Hall,  Properties of porous metals  Chairman: Yi Ding	
8:00~8:25	Keynote Talk  Hai Hao  The ordered porous aluminum: modeling, preparation, and properties with designed structures Page 71	8:00~8:25	Keynote Talk Hongjie Luo Preparation and properties of closed-cell aluminum foams and their sandwich structures Page 74
8:25~8:45	Invited Talk Donghui Yang Fabrication of closed-pore Cu-Mg alloy foams by powder metallurgical method Page 72	8:25~8:50	Keynote Talk R. Sepúlveda  Manufacturing of freeze-casting Fe-based porous materials assisted by a magnetic field for purifying Page 75
8:45~9:05	Invited Talk H. Wang Fabrication of porous TiAl alloy with bimodal pore structures and its thermal insulation property Page 72	8:50~9:10	Invited Talk Xiaoming Zhou Enhancing acoustic absorption of foams with metamaterials Page 75
9:05~9:25	Invited Talk Zhanguang Wang Research on the torsional properties of aluminum foam-filled steel tube after fire Page 73	9:10~9:25	Oral presentation Xiaoping Cai Highly porous CuAl intermetallics synthesized through thermal explosion using NaCl space holders Page 76
9:25~9:40	Oral presentation Yuchen Guo  Dynamic Response of Sandwich Structures with Cellular Metallic Core under Blast Loading Page 73	9:25~9:40	Oral presentation Nima Movahedi Axial compressive behavior and energy absorption capability of aluminum foam-filled polymeric tubes Page 76



	Oral presentation		Oral presentation
0.40.0.77	Fengjun Zhao		Xue-zheng Yue
	A study on viscosity of different		Effects of cell geometry on
9:40~9:55	viscous agents with the optimum	9:40~9:55	compressive deformation of
	proportion		open-cell titanium foams
	Page 74		Page 77
9:55~10:10		Coffee break	
]	Room102, Wentian Hall	Ro	om 113, Wentian Hall
Pi	roperties of porous metals	Prop	perties of porous metals
C	Chariman: Yuyuan Zhao	(	Chariman: Hai Hao
	Oral presentation		Oral presentation
	Pengcheng Zhu		Yu Guoji
10:10~10:25	Cyclic voltammetry measurement of	10:10~10:25	In-plane crush behavior of
10.10 10.25	electroactive surface area of porous	10.10-10.23	hexagonal hierarchical
	nickel Page 77		honeycomb
	merci i age //		Page 79
	Oral presentation	10:25~10:40	Oral presentation
	Chengwu zhang		Su Mingming
10:25~10:40	Microstructure characterization on		Microstructure and compressive
10.25~10.40	shot peened treatment closed-cell		properties of Al/Al <sub>2</sub> O <sub>3</sub> syntactic
	aluminum by Rietveld methods		foams
	Page 77		Page 80
	Oral presentation		Oral presentation
	Akram Salehi		Weihua Chen
10:40~10:55		10:40~10:55	Fractal Sound Absorbing
10:40~10:55	Mechanical evaluation of titanium	10:40~10:55	Properties of Fibrous Porous
	scaffolds for orthopedic implants		Metal under High-temperature
	Page 78		Environment Page 81
	Oral presentation		Oral presentation
	J. Ma		Yanpeng Wei
	tensile fatigue behavior of sintered		The study on the microstructure
10:55~11:10	stainless steel fiber felts	10:55~11:10	and properties of steel-based
	Page 78		porous materials
			Page 81

11:10~11:25	Oral presentation Min Li Influence of Cell Morphology on the Compressive Deformation Behavior of Aluminum Foams Page 79	11:10~11:25	Oral presentation S.C. Han Two auxetic materials based on wire-weaving Page 82
11:25~11:40	Oral presentation  Bo Zhang  Acoustic Properties of Porous Metal  Materials Based on COMSOL and  Using Different Acoustic Models  Page 79	11:25~11:40	Oral presentation Yang Yu  Quasi-static Crushing of Aluminum Foam-filled thin-walled Aluminum Tubes Page 80
		11:40~11:55	Oral presentation Xiaocui Yang Theoretical analysis and experimental validation of sound absorbing coefficient of porous iron Page 82
12:00	Closing ceremony  Room 108, Wentian Hall, Hohai University		