Syntactic and Composite Foams VI

Riga, Latvia
5-10 May 2024

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Engineering Conferences International
32 Broadway, Suite 314
New York, NY 10004
USA

Phone: (212) 514-6760
Fax: (212) 514-6030

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Sunday, May 5, 2024

17:30 – 18:30	Conference check-in
18:30 – 19:30	Welcome reception
19:30 – 21:30	Dinner

Monday, May 6, 2024

07:30 – 08:45	Breakfast Buffet
08:55 - 10:30	**Session 1: Reviews and Overview of Syntactic & Composite Foams**
09:00 - 09:30	**Designing syntactic foams: Opportunities provided by machine learning methods...1** Nikhil Gupta and Guan Lin Chen, New York University
09:30 – 10:00	**A review of syntactic and composite foams...2** Gary Gladysz (Los Alamos National Laboratories) and Chris Chawla (University of Alabama at Birmingham)
10:00 – 10:30	**Towards modelling the mechanical behavior of syntactic foams...3** Dominique Jones (University of Surrey), Nicholas Bazin (Atomic Weapons Establishment), Matthew Oldfield (University of Surrey), Nigel Park (Atomic Weapons Establishment), and Mark J. Whiting (University of Surrey)
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Session 2: Metal and Ceramic-based Composite Foams**
11:00 – 11:45	**Biocarbon-based nanocomposite for organic pollutant degradation...4** Quan (Sophia) He, (Dalhousie University)
11:45 – 12:30	**Analysis of mechanical characterization of syntactic foam sandwich Composite...5** Olusegun Adigun Afolabi (Durban University of Technology) and Krishnan Kanny and Turup Pandurangan Mohan (Durban University of Technology)
12:30 – 13:45	Lunch Buffet
13:45 – 16:30	*Ad hoc* discussions and Networking
16:30 - 17:00	Coffee Break
18:30 – 19:15	**Invited Talk**
19:30 - 21:30	Dinner followed by social period

Tuesday, May 7, 2024

07:30 – 08:45	Breakfast Buffet
09:00 - 10:30	**Session 3: Bio-materials and Applications I**
09:00 – 09:30	**Kirkendall effect: Its use in creating hollow and porous, inorganic, Nano- and microstructures...6** Krishan Chawla (University of Alabama at Birmingham) and Daniel Rodrigues, Rachel Collino and Gary Gladysz (Los Alamos National Laboratories)
09:30 – 10:00	**Deformation mechanisms on the fracture behavior of glass hollow microspheres reinforcement polyurethane foams...7** YeongJeong Kang, YongGuk Son, SwangJu Jang and YoungCheol Lee (Korea Institute of Industrial Technology)
10:00 – 10:30	**Durability of syntactic foam in deep sea environment...8** Gatyhier Loubrieu (TOTAL, IFREMER)
10:30 – 11:00	Coffee Break
11:00 – 12:30	**Session 4: Biomaterials and Applications II**
11:00 – 11:30	**Development of the high-performance syntactic foams made of hollow Ceramic particles by spark plasma sintering method: Preparation and Characterization...9** Andrei Shishkin (Riga Technical University)
11:30 – 12:00	**REALfoam: Process development for SLS-printed syntactic foam...10** Rachel Collino (Los Alamos National Laboratories MST-7)
12:30 - 13:45	Lunch Buffet
13:45	Leave for Riga Technical University
14:00 - 18:00	**Tour of RTU research facilities**
19:00 - 21:00	Offsite dinner
21:00	Return to hotel

Wednesday, May 8, 2024

07:30 – 08:45	Breakfast Buffet
09:00 - 10:45	**Session 5: Syntactic Foam Development and Testing**
09:00 – 09:45	**Novel developments in syntactic molding at AWE...11** Nicholas Bazin (AWE)
09:45 – 10:15	**Synthesis and characterization of aluminum syntactic foam by spark Plasma sintering...12** Yong Guk Son (Korea Institute of Industrial Technology); YongHo Park (Pusan National University); and Sung Su Jung, Yeong Jeong Kang, WookJin Lee, and Young Cheol Lee (Korea Institute of Industrial Technology)
10:15 – 10:45	**Manufacturing of a cellular composite materials with cast polyamide matrix and studies of process compatible binding agents...13** Alexander Fischer and Hubert Klaus (University of Applied Sciences Landshut, Competence Center for Lightweight Design) and Nicola Hüsing (Paris Lodron University of Salzburg, Chemistry and Physics of Materials)
10:45 – 11:15	Coffee break
11:15 – 12:30	**Session 6:** TBA
11:15 – 12:00	**Metal matrix composite syntactic foams (MMCSFs): A wonderful choice for Lightweight structural applications...14** Shashank Kumar Srivastava (RMIT University, Australia; Academy of Scientific and Innovative Research (AcSIR), India); Joe Elambasseril (RMIT University); Gaurav Kumar Gupta, Tilak Chandra Joshi, and D. P. Mondal (CSIR-Advanced Materials and Processes Research Institute, India); and Ma Qian and Milan Brandt (RMIT University)
12:00 – 12:30	**Characterization of hollow thermoplastic microspheres...15** Matthew E. Curd, Michael J. Smith, Parmesh Gaijar, Zeshan Yousaf and William J. Parnell (University of Manchester)
12:30 – 14:00	Lunch
14:00 – 18:00	Tour of Riga and dinner on your own

Thursday, May 9, 2024

07:30 – 08:45	Breakfast Buffet
09:00 - 10:45	**Session 7: Syntactic Foam Development and Testing II**
09:00 – 09:45	**Fabrication of aluminum metal fiber laminates for diverse applications...16** K.G. SWagar (Jain University)
09:45 – 10:15	**Syntactic foam-inspired nanocomposite hydrogels for drug delivery and tissue engineering applications...17** Kamil Elkhoury (NYUAD), Nikhil Gupta (NYU), and Vijayavenkataraman Sanjairaj (NYUAD)
10:15 - 10:45	Coffee break
10:45 - 12:15	**Session 8: Hollow Particle and Fiber Development and Testing**
10:45 – 11:30	**Mechanical performance of syntactic foam composites under various loading conditions...18** Zeshan Yousaf and Matthew Curd (University of Manchester) and William Parnell (The University of Manchester)
11:30 – 12:15	**The 3D failure mechanism in epoxy syntactic foams: effects of strain rate and cenosphere volume fraction...19** Peifeng Li (University of Glasgow)
12:15 – 14:00	Lunch
14:00 – 16:00	General discussion
19:00	Closing Dinner (at Riga restaurant TBA)

Friday, May 10, 2024

07:30 – 09:00	Breakfast Buffet
09:00 - 11:00	Wrap up and planning for the next conference in this series
	Departures