



7th International Congress on Ceramics (ICC7)



Symposium: High and Ultra High Temperature Ceramics Symposium

Scope of the Symposium:

A high-level global platform for scientists, engineers, business leaders and ceramists to discuss the latest innovations and scientific achievements in the High and Ultra High Temperature Ceramic field. Ideas and visions of the future for both conventional and new processing technologies, characterization, performance, modelling as well as applications will be shared.

Abstracts will be called in (but not limited to) the following areas:

Materials Design, New Compositions and Composites

Improving Damage Tolerance, Oxidation and Thermal Shock Resistance

Structure Stability at High and Ultra High Temperatures

Processing-Microstructure-Property Relationships

Ceramic Matrix Composites (CMCs) and UHTCMCs

Modelling and Simulations

Advanced and Novel Processing Methods

Confirmed Invited Speakers:

International Advisory Board

Bill Fahrenholtz - Missouri University of Science and Technology - U.S. - billf@mst.edu

Carmen Baudin – Instituto de Cerámica y Vidrio, CSIC – Spain - cbaudin@icv.csic.es

Carolina Tallon - Virginia Tech - USA - tallon@vt.edu

Christopher Parr – Kerneos Aluminates – France - chris.parr@kerneos.com

Davide Bigoni – University of Trento – Italy - davide.bigoni@unitn.it

Dechang Jia - Harbin Institute of Technology – China - dcjia@hit.edu.cn

Dietmar Koch - German Aerospace Center - Germany - dietmar.koch@dlr.de



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Diletta Sciti - CNR - Institute of Science and Technology for Ceramics – Italy -
diletta.sciti@istec.cnr.it

Erwan Gueguen - Magnesita Refractories – Germany - Erwan.Gueguen@magnesita.com

Eugenio Zapata-Solvas - Imperial College - U.K. - eugenio.zapata-solvas@imperial.ac.uk

Francis Cambier - Belgian Ceramic Research Center - Belgium - f.cambier@bcrc.be

Frédéric Roulet – Saint Gobain – France - Frederic.Roulet@saint-gobain.com

Guo-Jun Zhang - Donghua University – China - gjzhang@dhu.edu.cn

Helge Jansen – Refratechnik Steel – Germany - helge.jansen@refra.com

Hua -Tay (H.T.) Lin – Guangdong University of Technology – China - huataylin@comcast.net

Khalid Lafdi – University of Dayton – US - klafdi1@udayton.edu

Mark Huger – University of Limoges – France - marc.huger@unilim.fr

Nitin Padture - Brown University - US - nitin_padture@brown.edu

Paschoal Bonadia – Magnesita Refractories – Brazil - paschoal@magnesita.com

Pavol Sajgalik - Slovak Academy of Sciences - Slovakia - uachsajg@savba.sk

Peter Greil – University of Erlangen-Nuernberg – Germany - peter.greil@fau.de

Samuel Humphrey-Baker - Imperial College - U.K. - s.humphrey-baker@imperial.ac.uk

Shaoming Dong - Shanghai Institute of Ceramics – China - smdong@mail.sic.ac.cn

Sido Sinnema – Tata Steel – Netherlands - sido.sinnema@tatasteel.com

Tatsuki Ohji - National Institute of Advanced Industrial Science and Technology (AIST) - Japan
- t-ohji@aist.go.jp

Winfried Boenigk - Ruetgers – Germany - Winfried.boenigk@raincarbon.com

Yanchun Zhou - Shenyang National Laboratory of Materials Science - China -
yczhou@imr.ac.cn



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Local Advisory Board

Ana Paula da Luz - FAI- Petrobras – Brazil - anapaula.light@gmail.com

Analia Tomba Martinez – INTEMA – Argentina - agtomba@hotmail.com

Eric Yoshimitsu Sako – Saint Gobain – Brazil - eric.sako@saint-gobain.com

José de Anchieta Rodrigues – UFSCar – DEMa – Brazil - josear@ufscar.br

Mariana A. L. Braulio - 4Cast Consulting – Brazil - mariana.4cast@gmail.com

Pedro Ivo Pelissari - UFSCar – DEMa – Brazil - pedropelissari@hotmail.com

Ricardo Afonso Angélico – Universidade de São Paulo – Brazil - ricardoangelico@gmail.com

Rosa Maria Rocha – IEA – Instituto de Aeronáutica e Espaço – Brazil - rosa.rocha11@gmail.com

Sebastião Ribeiro – Universidade de S. Paulo – Brazil - sebastiao@demar.eel.usp.br

Vânia Regina Salvini – FATEC – Brazil - vr.salvini@gmail.com

Symposium Organizers:

Chairman: William (Bill) E. Lee

Professional affiliation: Imperial College London – U.K.

Address: Faculty of Engineering, Department of Materials

Phone: +44 (0)20 7594 6733

E-mail: w.e.lee@imperial.ac.uk

Chairman: Victor C. Pandolfelli

Professional affiliation: Federal University of São Carlos - Brazil

Address: Rod. Washington Luiz km 235, DEMa, ALCOA Laboratory, 13565-905

Phone: +55-16-33518252

E-mail: vicpando@ufscar.br



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Chairman: Jon Binner

Professional affiliation: University of Birmingham – U.K.

Address: College of Engineering and Physical Sciences

Phone: +44-(0)121 4144396

E-mail: J.Binner@bham.ac.uk

Chairman: Christos Aneziris

Professional affiliation: Technische Universität Bergakademie Freiberg - Germany

Address: Institut für Keramik, Glas- und Baustofftechnik

Phone: 03731-39 2505

E-mail: aneziris@ikgb.tu-freiberg.de

Members to Scientific Committee (include affiliation and e-mail address)

Bill Fahrenholtz - Editor-in-chief of the Journal of the American Ceramic Society - Missouri University of Science and Technology - U.S. - billf@mst.edu

Christos Aneziris – German Academy of Technical Science - Technische Universität Bergakademie Freiberg – Germany - aneziris@ikgb.tu-freiberg.de

Davide Bigoni – Editor of the Journal of Mechanics of Materials and Structures - University of Trento – Italy - davide.bigoni@unitn.it

Dietmar Koch - German Aerospace Center - Germany - dietmar.koch@dlr.de

Hua -Tay (H.T.) Lin – Editor-in-chief of the International Journal of Applied Ceramic Technology - Guangdong University of Technology – China - huataylin@comcast.net

Jon Binner - Deputy Head of the Engineering & Physical Sciences College - University of Birmingham – U.K. - J.Binner@bham.ac.uk

Pavol Sajgalik – President of ECERS 2017 - Slovak Academy of Sciences - Slovakia - uachsajg@savba.sk

Peter Greil – Chair of the Institute of Glass and Ceramics -University of Erlangen-Nuernberg – Germany - peter.greil@fau.de

Tatsuki Ohji – Director of the American Ceramic Society - National Institute of Advanced Industrial Science and Technology (AIST) - Japan - t-ohji@aist.go.jp

Victor C. Pandolfelli – Editor-in-chief of Ceramics International - Federal University of São Carlos – Brazil – vicpando@ufscar.br

William (Bill) E. Lee - President of the American Ceramic Society - Imperial College London – U.K. - w.e.lee@imperial.ac.uk



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Organizers information:



Prof. W. E. (Bill) Lee

Bill is Professor of Ceramics in the Department of Materials and was until recently Director of the Centre for Nuclear Engineering and of the Nuclear Energy Centre for Doctoral Training at Imperial College London. His research interests include use of ceramics in extreme environments e.g. nuclear for fuels including Accident Tolerant Fuels and wasteforms, Ultra-high Temperature Ceramics in aerospace applications and for high emissivity refractory coatings. He has supervised 60 students to successful completion of their PhDs and published over 400 papers and 4 books on ceramics. He was from 2006 to 2010 Head of the Department of Materials at Imperial College London and is currently President of the American Ceramic Society.



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Prof. Jon Binner

Professor Jon Binner is the Deputy Head of the Engineering & Physical Sciences College, and Professor of Ceramic Science & Engineering in the School of Metallurgy and Materials, at the University of Birmingham. He took up both of these posts on the 1st January 2014. He obtained his Bachelors and PhD, both in Ceramic Science & Engineering, from Leeds University in 1981 and 1984 respectively. Since graduating, he has held a series of Faculty positions at the Universities of California at Los Angeles (UCLA), Leeds, Nottingham, Brunel and before his current position he was the Dean of the School of Aeronautical, Automotive, Chemical and Materials Engineering at Loughborough University. He is a Visiting Professor at both Beijing University of Chemical Technology and Kunming University in China. Jon has published about 210 research papers, as well as editing or contributing to 19 books, given around 60 keynote, plenary and invited talks at international conferences and holds 7 patents. He has won 127 research grants totalling about £16.1M, many have been international in nature. He is a Fellow of the American Ceramic Society, the European Ceramic Society and the Institute of Materials, Minerals & Mining (IOM3); he was the President of the latter from 2012-14. The IOM3 awarded him the Holliday Prize in 1995, the Ivor Jenkins Medal in 2007 and the Verulam Medal & Prize in 2011. The focus of his research is the generation of both the necessary scientific understanding and the required engineering solutions for the development of processing routes for ceramic materials that display technical and/or financial advantages over existing processes and which yield new or improved materials. Major focuses for his recent work include ultra-high temperature ceramic composites, for which he currently holds a £4.3M research grant from the Engineering and Physical Sciences Research Council in the UK, nanostructured ceramics, ceramic armour and porous ceramics, the latter being commercialised by industry in the 1990s. Much of his research is associated with the defence industry and ranges from developing superior armour materials through to ceramic composites that can withstand



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temperatures up to nearly 3000°C for the leading edges and other components on vehicles for hypervelocity flight. He is about to start a project on understanding the interfaces better in ceramic composites to be used as energy materials.



Prof. Christos Aneziris

Christos Aneziris is since 2001 a professor of Ceramics at the Technische Universität Bergakademie Freiberg, Germany. His major field of research includes fundamental and applied aspects of modern refractories in advanced metallurgy processing routes covering areas of iron and steel clean technology and casting up to advanced casting of non ferrous low and high temperature materials, refractories in energy applications as well as non conventional processing routes of metal and ceramic matrix fine- and coarse-grain composite materials, and porous materials. He is speaker of the collaborative research center of the German Scientific Foundation (DFG) “Multifunctional Filter systems; a contribution to Zero Defect materials”, co-speaker of the collaborative research center “TRIP – Matrix – Composites” as well as he was speaker of the Priority Programme “Refractory Initiation for Reduction of Emmissions”. The results are reflected in more than 300 papers, 105 patents filled, 55 granted and 35 remain effective. In the last 15 years he has supervised more than 40 students to successful completion of their PhDs. Christos Aneziris is a full member of the Saxonia Academy of Science in Leipzig since 2009 and since 2011 of the German Academy of Technical Science (ACATECH). He is since 2012 member of the review board of the German Research Foundation (DFG) in the field of “Ceramic and Metallic Sintered Materials” and since 2014 member of the board of the “Federation of International Refractory Research and Education - FIRRE”. He serves as a member of the board of the German Ceramic Society since 2003 and in 2017 he was elected Fellow of the European Ceramic Society.



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Prof. Victor C. Pandolfelli

Pandolfelli is a Full Professor at the Materials Engineering Department, Federal University of São Carlos, São Paulo state, Brazil, from which he received his B.Sc. and M.Sc. degrees in Ceramics. He earned his Ph.D. from Leeds University (England) and spent a year as a visiting researcher at École Polytechnique in Montreal (Canada). Until May 2017, he has authored or co-authored 488 papers in journals, 239 in proceedings, 2 books (1 international) and holds 8 patents. During his career, he has received 14 international awards (Japan, Germany, USA and Italy) and 76 national awards and distinctions for his scientific and technological achievements. Pandolfelli is also a member of the Editorial Board of 12 scientific journals and Editor-in-chief of the Ceramics International. Since 2004 he has been the Latin-American coordinator and Member of the Board (2012 until the present) of F.I.R.E. (Federation for International Refractory Research and Education) joining 10 universities from different countries and 15 key refractory industries in the world. Pandolfelli is Academician of the World Academy of Ceramics (WAC), a Member of the Advisory Board of WAC, Academician of the Brazilian Academy of Sciences and also National Academy of Engineering, Fellow of the American Ceramic Society and Member of the Technical Advisory Board of Morgan Advanced Ceramics – England. He is Guest Professor at Freiberg University in Germany and Wuhan University of Science and Technology (WUST) in China.