

SCHEDULE OF SOCIAL AND TECHNICAL EVENTS

Monday, Oct-12-2009

TIME	EVENT	LOCATION
9.00am	Meetings of ISO/TC 33 (for members only)	Miguel Torga Room
9.00am	FIRE Annual Board Members Meeting (for members only)	Drumond de Andrade Room

Tuesday, Oct-13-2009

TIME	EVENT	LOCATION
9.00am	Meetings of ISO/TC 33 (for members only)	Miguel Torga Room
10.00am	ALAFAR Committee (for executive members only)	Drumond de Andrade Room
3.00pm	IEB Meeting	Drumond de Andrade Room
8.30am	Short Course: Thermal Shock Resistance of Engineered Microstructure	
10.15am	Coffee Break	
10.45am	Short Course: Thermal Shock Resistance of Engineered Microstructure	Fernando Pessoa 4 Room
12.30pm	Lunch	
2.00pm	Short Course: Thermal Shock Resistance of Engineered Microstructure	
3.45pm	Coffee Break	
4.15pm	Short Course: Thermal Shock Resistance of Engineered Microstructure	
7.30pm	Welcome Cocktail Party	Foyer Jorge Amado

Wednesday, Oct-14-2009

TIME	EVENT	LOCATION
8.30am	Opening Ceremony	
9.30am	The Refractory Supply Chain Challenge of the Global Cement Industry Santosh Patel - World Wide Sourcing Director for Lafarge Cement	
10.30am	Coffee Break	Fernando Pessoa Auditorium
11.00am	World Financial Crisis - The Challenges Left to the Steel Business José Carlos de Matos Silva - Sales Director of Gerdau Group Refractories for the Steel Industry: A Customer's Perspective Fernando Pessanha Santos - Procurement Manager Latin America of Gerdau Group	
12.00pm	Lunch	

Thursday, Oct-15-2009

TIME	EVENT	LOCATION
8.30am	UNITECR 2009 Forum on Raw Materials	Fernando Pessoa Auditorium

Friday, Oct-16-2009

TIME	EVENT	LOCATION
4:00pm	ALAFAR Assembly	Drumond de Andrade Room
8.30pm	Gala Dinner	Trapiche Events

Saturday, Oct-17-2009

TIME	EVENT	LOCATION
9:00am	FIRE Assembly (for members only)	Drumond de Andrade Room

Wednesday, Oct-14 to Friday, Oct-16-2009

TIME	EVENT	LOCATION
7.15am	Breakfast for Chairman and Speakers	Cais da Ribeira Restaurant (S1)

TECHNICAL SESSIONS

Wednesday, Oct-14-2009

TIME	Fernando Pessoa 1 Room
	Nanoengineered Refractories
Chairmen	Jeffrey D. Smith Carlos Pagliosa Neto
2.00pm	Effects of Microsilica Powder on Microstructure and their Properties of Fired Alumina-Zirconia-Carbon Slide Gates Yawei Li, Shaobai Sang, Bei Tong, Shan Ge, Hong Peng and Jian Li (140)
2.20pm	Interactions of Carbon Nanotubes In Al ₂ O ₃ -C Refractories for Sliding Gate Applications C.G. Aneziris, S.L. Jin, Y.W. Li and V. Rountos (008)
2.40pm	Influence of Nano-Additives on Thermo-Mechanical Properties of Alumina Castables Vijaya chitra Arasu, Sukumar Adak, Arup Kumar Chattopadhyay and C.D Kamath (083)
3.00pm	Nano Engineered Alumina-Magnesia Refractory Castables M. A. L. Braulio, L. R. M. Bittencourt and V. C. Pandolfelli (095)
3.20pm	Matrix Engineered Insulation Material for Usage in Refractory Linings Octavian Anton, Ann Opsommer, Volker Krasselt, Thorsten Tonnesen, Benjamin Schlickle (011)
3.40pm	Effects of Dispersion and Content of Nanometer Carbon on Mechanical Performance of Low Carbon MgO-C Materials Li Lin, Tang Guangsheng, He Zhiyong, Liu Kaiqi and Peng Xiaoyan (007)
4.00pm	Coffee Break
Chairmen	C. G. Aneziris Yaowu Wei
4.30pm	Effect of Nano-CaCO ₃ Addition on Mechanical Properties and Microstructure of Corundum Based Castable Zhang Houxing, He Zhongyang, Gan Mingliang and Liu Baikuan (131)
4.50pm	Effect of Nano-Titania Addition on the Properties of Magnesia Carbon System Vijaya chitra Arasu, S.Das, Sukumar Adak and Arup Kumar Chattopadhyay (079)
5.10pm	Effect of Nano-Oxides and Anti-Oxidants on Corrosion and Erosion Behavior of Submerged Nozzle for Longer Sequence Casting of Steel Anupal Sen, Birendra Prasad, Jayant Kumar Sahu, Nilachala Sahoo and Jai Narain Tiwari (021)
5.30pm	Reinforcement of Carbon Bonded MgO Refractories due to Nanometer Additions V. Stein, C.G. Aneziris, U. Klippel, W. Schönwelski and E. Guéguen (017)
5.50pm	The Anti-Oxidation Research on Nano-Sized Carbon Contained MgO Refractory Z.X. Yang, N.R. Ha and K.H. Hwang (241)

TIME	Fernando Pessoa 2 Room
	Carbon Containing Refractories
Chairmen	Sido Sinnema Shinobu Hashimoto
2.00pm	Development of Carbon Containing Castables for Steel Ladle Applications Sathiyakumar Murugesan, Sukumar Adak and Arup Kumar Chattopadhyay (078)

2.20pm	Thermal Degradation of MgO-C-Bricks H. Jansen and T. Schemmel (013)
2.40pm	Mechanical, Physical and Thermo-Mechanical Properties of Al ₂ O ₃ -C Refractories Under Oxidizing Atmospheres V. Rongos, C. G. Aneziris, W. Schärfl, J. Schnelle, J. Gerhards, F. Stegner and K. Berroth (015)
3.00pm	Design and Development of Aluminosilicate-Carbon Composites for Application in Shaft Furnaces W. Schärfl, D. Cölle, C.G. Aneziris and V. Rongos (010)
3.20pm	Colloidal Processing of Antioxidants in Magnesia-Carbon Bricks: Effect of Microstructure and Interfaces Guido Falk (023)
3.40pm	Graphite Oxidation Kinetics Evaluation in MgO-C Refractories via Artificial Neural Network Approach A. Nemati and E. Nemati C.B. (220)
4.00pm	Coffee Break
Chairmen	Ivan de Menezes Yawei Li
4.30pm	Effect of Al ₂ O ₃ Coating on Wettability and Oxidation Resistance of Graphite A. Nemati, H. Rastegar, S. Baghshahi and A.A. Norbakhsh (228)
4.50pm	Improved Hydration Resistance of Carbon Bonded Refractories Containing Metallic Additions S. Dudczig, U. Klippel, C.G. Aneziris and C. Tontrup (035)
5.10pm	Corrosion Mechanisms of Magnesia Chromite Bricks in Contact with a Secondary Steelmaking Slag Franz Melcher, Harald Harmuth, Rainer Neuböck and Roman Rössler (090)
5.30pm	Doloma R2U Castable: Novel Basic Self Flow Castable For Hot Repairing Doloma Carlos Pagliosa, Alfredo Veiga and Victor Carlos Pandolfelli (148)
5.50pm	Development of Chrome Free Brick for RH Degasser G. Ghosh, S. Hazra, P. Chakraborty, S. Adak and A. K. Chattopadhyay (080)

TIME **Fernando Pessoa 3 Room**

Refractories for Iron and Steelmaking

Chairmen **Giovanni Angelo Tancredo**
Tom Vert

2.00pm	Development of Alternative Refractory Lining Solutions for Premelter and Coating Pot of CSN PR-Galvalume Production Line Sidiney N. Silva, Carlos F. R. Xavier, Maurício Rickli, Jodalby J. de Souza, Renato Antônio, Roberto Cristiano, Sílvio C. Frasson, Fernando Vernilli, Eduardo Saito and Elson Longo (223)
2.20pm	Development of Large Block for Blast Furnace Tuyere Kiyotaka Enoki, Tatsuya Kageyama, Masatsugu Kitamura and Yukitoshi Kubota (172)
2.40pm	Evaluation of Refractory Materials Suitable for use in Heat-recovery Coke Ovens Candice Church, Xstrata Alloys and Andrie Mariana Garbers-Craig (157)
3.00pm	Influence of Thermal Cycling on Strength Deterioration of High-Alumina and Fireclay Bricks Atsuya Kasai and Nobuhiro Ootsu (063)
3.20pm	Effect of Various Additives on Polymorphic Transformation in Silica Bricks R.Kartik, S.Ganguli, S.Adak, A.K.Chattopadhyay and C.D.Kamath (082)
3.40pm	A New Approach for Combustion Chambers Construction in Preshaped Blocks for Iron Ore Pelletizing Furnace João H. Silva, Marcos A. Góes, Tarcísio S. Andrade and Carlos A. Corato (259)
4.00pm	Coffee Break

Chairmen Abel Carriquiry Blondet**Kasai Atsuya**

4.30pm	The Influence of Silicon Carbide Addition on the Thermo-Mechanical Properties of Silica Bricks Atanu Suvrajit Bal, Arup Kumar Samanta, Sukumar Adak, Arup Kumar Chattopadhyay and Cholpadi Devdas Kamath (084)
4.50pm	Thermal Behavior of Coke Oven Silica Bricks with Respect to Mineralogy Bharati Krushna Panda, Pabitra Sahu, Sudhir Kumar Panda, Rabindra Kumar Jha and Jai Narayan Tiwari (209)
5.10pm	The Rheology of Tap-Hole Clays Related to Installation and Performance Glenn Bieber, Andrew Brewster and Lee Drakesmith (006)
5.30pm	Severstal L-Blast Furnace Hearth Refractories Findings and Repair at Sparrows Point Richard E. Fash, James O. Barrett, Ronald Timmer, Robert Hansen, Floris van Laar, Guy Ritterman and Bruce Stackhouse (191)
5.50pm	World's First Ceramic Fibre Working Lining for Non-Recovery Type Coke Oven Roof S. N. Laha (248)

TIME Fernando Pessoa 4 Room**Castables and other Monolithics Technology****Chairmen Victor Carlos Pandolfelli****Jérôme Soudier**

2.00pm	Improved Monolithic Refractory Lining System Dennis Peters (002)
2.20pm	New Gunite Materials with Improved Performance to Reduce Process Downtime Stephen Libby (005)
2.40pm	Novel Casting Technique Justin A. Teiken and JamesW. Stendera (274)
3.00pm	Novel Casting Technique Field Results JamesW. Stendera, Justin A. Teiken, Sam Bonsall, Steve Libby and Ian Whyman (169)
3.20pm	The Drying of Refractory Castables: From Tests to Models Pierre Meunier and Jérôme Soudier (044)
3.40pm	Development of Monitoring Tools to Assist the Drying of Monolithic Refractory Materials O. Krause, S. Abdelouhab, M. Cambier, J.P. Erauw, P. Pilate, J. Tirlocq, I. Urbain, F. Cambier, C. Chevallier and H. Walaszek (240)

4.00pm Coffee Break

Chairmen Livio Togni**Dennis Peters**

4.30pm	Regular Castables (RC) and High Performance – No Contradiction Anymore C. Wöhrmeyer, C. Parr and H. Fryda (043)
4.50pm	Effect of Aggregate Size Composition on Properties of Fresh and Sintered All-Alumina Castables Abílio P. Silva , Deesy G. Pinto, Tesseleno C. Devezas and Ana M. Segadães (187)
5.10pm	New Multifunctional Castables for Multiple Applications Silvio C. Frasson, Renato Antonio, Roberto Cristiano, Danilo A. Bomfim, Fabiano Tonon, Cristiane Cassiano and Eric Jorge (214)
5.30pm	Improved Additive Systems for Low Cement, High Purity Castables G. Assis, C. Parr and C. Hu (109)
5.50pm	Polycarboxylate Ether Dispersants: Interaction with Microsilica Containing Lowcement Castables Herbert Hommer (018)

TIME**Zélia Gattai Room****Advances in Refractories Basic Sciences****Chairmen****Jacques Poirier****Paulo Osório Ribeiro Caldeira Brant**

2.00pm Insulating Firebrick – Effect of Manufacturing Method on Product Performance Andy Wynn, Massimiliano Marchetti, Jason P. Street and Tara Yin **(076)**

2.20pm MgO Hydration Phenomena – Solid State Aspects Jerzy Bugajski, Wolfgang Preis, Luis Rodolfo Bittencourt and Roberto de Paula Rettore **(028)**

2.40pm Effect of Grain Size of Sintered CaO on the Hydration Resistance of Lime Refractories A. Ghosh and H. S. Tripathi **(041)**

3.00pm Effect of Impurity on Oxidation Behavior of MgAlON Prepared from Different Starting Materials Guotian Ye, Junli Shang, Lin Yuan, Yan Luo and Lin Dong **(089)**

3.20pm Thermal expansion of Refractory Related Materials Around Room Temperature Hidetoshi Miyazaki, Nobuyasu Adachi and Toshitaka Ota **(133)**

3.40pm Effect of K₂O on Synthesis of Al₄SiC₄ / Al₄O₄C Composites Chengji Deng, Jianlei Kuang and Hongxi Zhu **(125)**

4.00pm Coffee Break

Chairmen**Toshitaka Ota****George Oprea**

4.30pm Synthesis of MgO-SiC-C Refractory Composite Powder by Forsterite-C as Raw Material Hongxi Zhu, Yingfeng Wei, Chengji Deng, Meijie Zhang and Huazhi Gu **(146)**

4.50pm Development of Biosoluble Fibres and Raw Material Cost Reduction Guilherme Zany Schimmelpfeng **(168)**

5.10pm Synthesis of Al₄Si₂C₅ and its PhysicoChemical Properties Shinobu Hashimoto, Shuho Ohashi, Sawao Honda, Yuji Iwamoto and Koji Inoue **(149)**

5.30pm Illustration of Chromite Addition on Microstructure, Phase Evolution and Properties of Spinel Bonded Magnesia Based NCC Amir Abbass Nourbakhsh, Faramarz Kazemi, Ali Saberi and Farhad Golestani-Fard **(270)**

5.50pm Effect of NaCl on the Synthesis of ZrB₂ Powder by Self-Propagating High-Temperature Synthesis Technique Gang Wang, Wang Laiwen, Li Hongxia and Li Daibin **(154)**

Thursday, Oct-15-2009

8.30am	UNITECR 2009 Forum on Raw Materials
	Fernando Pessoa Auditorium
	<ul style="list-style-type: none"> ▪ Challenges facing raw materials suppliers and users for the coming 5 years; ▪ Logistics and world free commerce x protectionism; ▪ Regulations, standards, tariffs: the delicate balance between technology and protectionism ▪ Tendencies on quality of raw materials
	Moderator
	Paulo R.H.M. Bittencourt
	Panelists
	Alan Roughead, Managing Director of Queensland Magnesita
	Alvaro Bravo Lopes, General Manager of ACC Resources Co.
	Chris Parr, Technical Development Director of Kerneos
	David Gregory, President and COO Magnesita/LWB North America
	Donald McIntyre, Technical Development Director of ANH Refractories Company
	Giorgio Cappelli, COO Steel Division of RHI AG
	Paulo Osório Ribeiro Caldeira Brant, General Manager of Research and Development of Magnesita
	Remco de Jong, CEO of Almatris GmbH
10.30am	Coffee Break

TIME	Fernando Pessoa 1 Room
	Globalized Education
Chairmen	Michel Rigaud Marc Huger
11.00am	Refractory Education in Brazil Dan Yushin Miyaji, Victor Carlos Pandolfelli and José de Anchieta Rodrigues (112)
11.20am	A Ceramic Engineering Degree from the Department of Materials Science and Engineering at Missouri University of Science and Technology Jeffrey D. Smith (271)
11.40am	Refractories Engineering's Education and Research in Japan Toshitaka Ota (134)
12.00am	Education and Research of Refractories in Germany C.G. Aneziris (009)
12.20pm	Refractories Education and Training in a Changing Globalised Environment Alan Hey (001)
12.40pm	Globalized Education – Scenario In India Dr. Sukumar Adak, Priyabrata Panda, Dr. Arup Kumar Chattopadhyay (085)
1.00pm	Lunch

Nanoengineered Refractories

Chairmen	Sukumar Adak Ana Maria Segadaes
2.30pm	Preparation of Nano-Crystalline Magnesium Chromate Spinel by Citrate Sol-Gel Process Suping Li, Xiaolin Jia and Shaoji Sun (158)
2.50pm	Reactive-Sintering of Magnesia-Rich Basic Refractories Rahul Lodha, George Oprea and Tom Troczynski (188)
3.10pm	Oxide Castables Based on a Novel Cement, Phosphate and Nano Alumina/Silica-Free Binder System C.G. Aneziris, S. Dudczig and J. Suren (016)
3.30pm	The influence of additions of nanostructured Al ₂ O ₃ -powder on the high temperature strength of high alumina refractories Tadeusz von Rymon Lipinski, Ewa Drygalska and Christoph Tontrup (038)
3.50pm	Thermo Mechanical Simulation of the Flue in Coke Dry Quenching Technology Xia Chen*, Qingming Chang, Yawei Li, Yuanbing Li and Jiayan Zhang (180)
4.10pm	Coffee Break

Refractories Applications of Modelling and Simulation

Chairmen	Alain Gasser Hidetoshi Kamio
4.40pm	Thermal Stress Distribution of Purging Plug with Different Slit Structure Zhang Hui, Hong Yanruo, Li Hongxia and Yang Bin (004)
5.00pm	Thermal Numerical Simulation of the Cooling-Down Sequence of High Zirconia Fused-Cast Refractories L. Laurence, M. Boussuge and D. Ryckelynck (106)
5.20pm	Damage Modelling in a Fiber Reinforced Refractory Castable Fabien Nazaret, Olivier Barrau, Thierry Cutard and Aurélien Mazzoni (238)
5.40pm	Does Combination of Different Materials Influence Thermomechanical Lining Behaviour? A Case Study for a Torpedo Ladle T. Auer, D. Gruber, H. Harmuth and M. Glaser (077)
6.00pm	Numerical Comparison of the Efficiency of Gas Injection Through Lances and Plugs Bruno A. B. Ribeiro, Rodrigo N. Borges, Thiago A. Ávila and José C. Cé (246)

TIME **Fernando Pessoa 2 Room**

World Raw Materials

Chairmen	Andreas Buhr Miguel A. Pereyo
11.00am	Influence of Burning Conditions on β -SiAlON Bond of Al ₂ O ₃ - Refractories S. Pichlbauer, H. Harmuth, Z. Lenčič, P. Šajgalík and V. Petrušková (048)
11.20am	Dolomite Clinker Production for Modern Steelmaking Czesław Gołowski and Michał L. Sulkowski (213)
11.40am	Development of High Purity, High Density Magnesia from Natural Australian Cryptocrystalline Magnesite D. Anderson and D. Taylor (232)
12.00am	Dunite PM Blends With Magnesite in Refractory Applications Roberto Caballero (273)
12.20pm	An Outlook Of Refractory Recycling Experience In Iran Farzin Arianpour, Faramarz Kazemi and Farhad Golestani Fard (229)
12.40pm	Andalusite in Peru, South America W. H. McCracken (269)
1.00pm	Lunch

Ex-Situ and In-situ Characterization Environmental Sustainability and Recycling

Chairmen	Hans-Jürgen Klischat Donald A. McIntyre
2.30pm	Fractographic Investigation of Refractories Harald Harmuth and Christian Manhart (088)
2.50pm	Post-Mortem Analysis of High Chrome Oxide Refractory Liners from Slagging Gasifiers Using Analytical Tools/Thermodynamics James P. Bennett, Kyei-Sing Kwong, Hugh Thomas and Rick Krabbe (185)
3.10pm	Synthetic Spinel Characterization and its Refractory Properties Eliomar Evaristo Ferreira, Paulo Roberto Gomes Brandao and Geraldo Eduardo Goncalves (265)
3.30pm	Corrosion of Magnesite Carbon Refractory at Steel-Slag Boundary During Oriented Silicon Steelmaking Yaowu Wei, Nan Li, Wenming Xie, Baohua Zhao and Juzhong Li (075)
3.50pm	Geopolymerization as a Technique for Bauxite Residue Applications Celina S. Bitencourt, Victor C. Pandolfelli, Bruno H. Teider and Jorge B. Gallo (121)
4.10pm	Coffee Break

Refractories for Cement and Lime

Chairmen	Don Griffin Adam A. Wajdowicz
4.40pm	Study of Chemical Corrosion of Basic Refractory Bricks from Cement Rotary Kilns Using Alternative Fuels Jacek Szczerba (052)
5.00pm	Alternative Fuels in The Cement Industry: Attack and Damage of Monolithic Refractories in the Preheater Zone Ignácio Recio Dominguez, Jesús Gómez Millán, Margarita Alvarez and Salvador De Aza and Antonio. H. De Aza (093)
5.20pm	Development of Improved Quality Magnesite Alumina Spinel Brick for Cement Rotary Kilns Bhagiratha Mishra, Nilachal Sahoo, Jai Narayan Tiwari and Suvash Chandra Swain (020)
5.40pm	Case Study Involving the Hydration of Magnesite Containing Brick Richard C. Kaldon and Patrick D. McNamara (067)
6.00pm	Role of Refractories in Minimizing the Shell Corrosion Phenomena in Cement Kilns in India S K Chaturvedi, M. M. Ali and M Vasudeva (132)

TIME **Fernando Pessoa 3 Room** Refractories for Iron and Steelmaking

Chairmen	Reto M. Schwegler Taijiro Matsui
11.00am	Development of Anti-Splashing Used Taphole Mud Chien-Nan Pan, Ching-Heng Shao, Chi-Chih Ma and Ting-Tu Tong (239)
11.20am	Development of Higher Slag Resistant Casting Material for Blast Furnace Trough Hiroshi Fujiwara, Youji Kajihara and Toshio Komatsu (037)
11.40am	Blast Furnace Trough and Runners: Techniques for Minimizing the Working Lining Oxidation Process Douglas Galesi, Carlos Leão, William Alves, Ricardo Azevedo, Eudes Mendes and Toshio Komatsu (108)
12.00am	Development of BF Main Trough Lining at Ruukki Metals Raabe Steel Works Jaakko Kärjä, Jukka Vatanen and Markku Vetoniemi Rautaruukki (215)

12.20pm	Development of the New Ecological Binders Systems for Tap Hole Mix Sérgio Murilo Justus, Alcides de Melo Souza, Agnaldo Bortolotti, Erika Fulanetti, Bruno Amorim, Marcos Fadel, Carlos Leão, Sérgio Accattini, Homero Storti and Vinicius Martins Vilela (110)
12.40pm	Development of Blast Furnace Trough Castables Adam Molin, Ondrej Kluza, Jacek Podworny and Teresa Wala (107)
1.00pm	Lunch
Chairmen	Álvaro Bravo Giorgio Capelli
2.30pm	Rigid Insulating Board in Torpedo Cars: Energy Savings and Overall Benefits Lionel Rebouillat and Marc-H. Fréchette (100)
2.50pm	Evolution of Torpedo Car Refractory Lining Campaign – Companhia Siderúrgica Nacional Sidiney Nascimento Silva, Vinicius Franco Nascimento, Fernando Vernilli Jr, Elson Longo, Sérgio Murilo Justus, Jeferson Machado, Carlos Leão and Sérgio Accattini (264)
3.10pm	Influence of Aggregates on the Properties and Performance of Bottom Purging Refractories Sk. Bashir Mohammed, Nilachala. Sahoo and Jai Narain Tiwari (022)
3.30pm	Study of Al ₂ O ₃ -MgO Refractory Castables Corrosion by Secondary Metallurgy Steel Ladle Slags ML. Bouchetou, P. Prigent and J. Poirier (025)
3.50pm	Advantages of Dense Calcium Hexaluminate Aggregate for Back Lining in Steel Ladles Marion Schnabel, Andreas Buhr, Doris van Garsel, Dagmar Schmidtmeier, Dale P. Zacherl and Jerry Dutton (049)
4.10pm	Coffee Break
Chairmen	Toshio Horiuchi Esteban Aglietti
4.40pm	Refractory Wear of Magnesite-Carbon Brick In Ladle Furnace (LF) Slaglines Edward L. Emy (068)
5.00pm	Examination of Refractory Corrosion Test for Secondary Steel Making Using Vacuum Induction Furnace Masaaki Yamamoto, Hironori Takeuchi, Hatsuo Taira and Taijiro Matsui (135)
5.20pm	A New Magnesite-Carbon Castable – from the Laboratory to an Industrial Scale T. Schemmel and H. Jansen (263)
5.40pm	Improvement of BOF Refractories at No.2 Steelmaking Plant on Kashima Steel Works for Sole BOF Vessel High Efficiency Operation Takashi Miki, Mitsuo Satoh and Harukiyo Tokuda (267)
6.00pm	Self-Assembled Porous Monolithic Refractories for Bottom Tuyeres Repairing of a Converter Jae-Won Kim, Byung-Su Kim, Yong-Moon Cho and Chang-Jung Um (210)

TIME **Fernando Pessoa 4 Room**

Castables and other Monolithics Technology

Chairmen **Nancy Bunt**
Masakazu Iida

11.00am Deflocculating Additive Effect on the Setting Time of the Andalusite Based LCC Castables A. Ressler and X.Y. Xiong **(029)**

11.20am Tuning Castable Mixes by Choosing Proper Chemical Additives Joachim v. Seyerl **(036)**

11.40am A New Insight into the Characterization of Ageing and Mechanisms that Determine the Shelf Life of Low Cement Castables Hervé Fryda, Jamel Mahiaoui, Eric Larnadie, Eric Charpentier, Mickaël Lievin and Chris Parr **(053)**

12.00am	New Results for CA-470 TI Temperature Independent Cement - Robustness Against Low Temperature and Impurities Andreas Buhr, Dagmar Schmidtmeier, Geert Wams, Dale Zacherl and Jerry Dutton (051)
12.20pm	The Role of Hydraulic Binders on the Magnesia Sinter Hydration Behavior of Refractory Castables Rafael Salomão, Victor Carlos Pandolfelli and Luís Rodolfo M. Bittencourt (057)
12.40pm	Influence of Binders on Physical Properties of Corundum Based Castables Zhu Boquan, Fang Binxiang, Li Xiangcheng and Wan Hongbo (272)
1.00pm	Lunch
Chairmen	W. S. Resende C. Woehrmeyer
2.30pm	Some Studies on the Hydraulic and Other Related Properties of Calcium Aluminates at Different Curing Temperatures Simulating Indian Climatic Conditions S.K. Das (040)
2.50pm	Mineralizing Agents for Alumina-Magnesia Refractory Castables M. A. L. Braulio, M. F. Maia, P. O. Brant and V. C. Pandolfelli (096)
3.10pm	New Reactivity Controlled Calcium Aluminate Technologies for Deflocculated Castables C. Parr, H. Fryda and J. M. Auvray (203)
3.30pm	Chelants to Inhibit the Hydration of Magnesium Oxide Lea Amaral, Ivone Oliveira, Victor Pandolfelli and Paschoal Bonadia (198)
3.50pm	Lime Content Effect on the Al ₂ O ₃ -MgO Castables Behavior M. A. L. Braulio, L. R. M. Bittencourt and V. C. Pandolfelli (098)
4.10pm	Coffee Break
Chairmen	Modestino A.M. Brito Genaro F. Cueva
4.40pm	Optimization of the PVA Fiber for Explosion Control of Refractory Castables Toshiaki Kobayashi, Masafumi Nakashima and Atsushi Tanaka (127)
5.00pm	The Dry Out Profile of Steel Micro-Fiber Containing Refractory Castables Caio M. Peret, Paschoal Bonadia, Modestino A.M. Brito and Victor C. Pandolfelli (262)
5.20pm	Effect of Bauxite Fines and Cement Content on Workability and High-Temperature Properties of Bauxite Based Castables Hong Peng and Bjørn Myhre (019)
5.40pm	The Expansive Behavior of Alumina-Spinel Castables with Microsilica Addition E. Y. Sako, M. A. L. Braulio, D. H. Milanez, P. O. Brant and V. C. Pandolfelli (034)
6.00pm	New Coarse Tabular Aggregates for Improved Castables Dale P. Zacherl, Marion Schnabel, Andreas Buhr, Dagmar Schmidtmeier and Xinyu Liu (050)

TIME

Zélia Gattai Room

Advances in Refractories Basic Sciences

Refractories for Nonferrous Metallurgy

Chairmen

Yasuro Ikuma
Richard C. Bradt

11.00am	Effects of ZrO ₂ Content Introduced by Fused MgO-ZrO ₂ Clinker on Properties of MgO-ZrO ₂ Unfired Bricks Zhou Ningsheng, Li Jiwei and Bai Hongyu (178)
11.20am	Composition of Refractories Suitable for Microwave Heating Yasuro Ikuma, Ken Senga, Koichi Niwa, and Yoshitaka Suzuki (164)
11.40am	Pressureless Sintering of Boron Carbide Ceramics Daniel Yukichi Kitaguchi, Kiyoto Sekine and Takeshi Kumazawa (170)
12.00am	Evaluation of Binders for Fired Doloma Bricks Graziella Rajão C. Pacheco,

	Modestino A. M. Brito, Roberto de Paula Retorre and Sérgio L.C. Silva (244)
12.20pm	Solid Solution Effects on the MgAl ₂ O ₄ System Kelley O'Hara, Jeffrey D. Smith and James Hemrick (242)
12.40pm	Fabrication of Porous Ceramics for Refractories from Several Routes Masayoshi Fuji, Takashi Shirai, Tomoaki Kato, Apiluck Eiad-ua, Koji Orito, Hideo Watanabe, and Minoru Takahashi (206)
1.00pm	Lunch
Chairmen	Charles E. Semler E. Guéguen
2.30pm	Influence of the Composition on Properties of MA Spinel Gan Shi, Wei Zhang and Chunqiu Pei (207)
2.50pm	Novel Spinel-Family Refractories for High-Temperature, HighAlkaline Environments James G. Hemrick, Jeffrey D. Smith and John Damiano (252)
3.10pm	Development of In-Situ Spinel Bonded Basic Castables for Non-Ferrous Industries Sathiyakumar Murugesan, Atanu Suvrajit Bal, Sukumar Adak and Arup Kumar Chattopadhyay (081)
3.30pm	Wear of Refractories at the Tuyere Line in Peirce Smith Converters George Oprea, Waiman Lo, Tom Troczynski and Joe A. Rigby (190)
3.50pm	Wetting of a 50% Mag-Chrome Refractory and its MgO-Spinel Phases by a Cu- Slag Faiz Al Musalami and Richard C. Bradt (256)
4.10pm	Coffee Break
Advances in Manufacturing, Installation and Equipment	
Chairmen	Dieter Fournier Paulo Osório Ribeiro Caldeira Brant
4.40pm	Modernization of Hydraulic Presses: Opportunities and Limits Ralph Lutz and Horst Schmitt (065)
5.00pm	The Impact of Appropriate Mixing Treatment On the Installation Properties of Unshaped Refractory Products Olaf Krause and Daniel Cölle (233)
5.20pm	Modern Carbell Design and ISO-JET Firing Daniel Llaguno and Roberto A. Reyes G. (261)
5.40pm	Energy Saving in Tunnel Kilns by Increasing the Specific Production Capacity Through Shortening the Firing Cycle Ernst-Georg Hartung (266)
6.00pm	Quality Assurance of Refractory Materials With Modern Control Syst Klaus Frey and Peter Nold (130)

Friday, Oct-16-2009

TIME **Fernando Pessoa 1 Room**
Globalized Education
Managing Refractories Technology

Chairmen **José de Anchieta Rodrigues**
Alan Hey

8.30am	Fire: New Challenges Ahead Michel Rigaud (258)
8.50am	How to Promote Research and Education in Refractory Engineering – a Marketing Perspective Anja Geigenmüller (145)
9.10am	Refractories Education in South Africa Andrie Mariana Garbers-Craig (156)
9.30am	Education on Refractories in France Marc Huger (255)
9.50am	Improving Management Results in a Materials Quality Laboratory: A Case Study Marcelo Ferreira Dinardi and Valmy Artus Gomes de Oliveira Junior (177)
10.10am	Refraweb - Software for Management of Quality Control in Application of Refractory Lining André Ricardo Chaves (184)
10.30am	Coffee Break

Refractories Applications of Modelling and Simulation

Chairmen **Harald Harmuth**
Thiago Augusto Ávila

11.00am	Structure Optimization of Submerged Entry Nozzle for Super-Wide Slab Continuous Casting By Numerical Simulation Ma Tianfei, Liu Guoqi, Yang Wengang and Yu Jianbin (153)
11.20am	Characterization of a Ramming Mix, Parameters Identification and Model Validation Jérôme Brulin, Laurent Josserand, Éric Blond, Amna Rekik, Alain Gasser and Frédéric Roulet (031)
11.40am	Simulation of Refractories Resonance Frequency Dietmar Gruber, Thomas Auer and Harald Harmuth (092)
12.00am	Modelling of a Coke Oven Heating Wall M. Landreau, A. Gasser, E. Blond and D. Isler (030)
12.20pm	Effect of Impurity on Oxidation Behavior of MgAlON Prepared from Different Starting Materials Guotian Ye, Junli Shang, Lin Yuan, Yan Luo and Lin Dong (089)
12.40pm	Lunch

Refractories Applications of Modelling and Simulation
Slag Corrosion / Others

Chairmen **Ana Maria Segadaes**
Celso Rodrigues de Freitas

2.00 p.m	The Influence of the Sen's Position on the CSP Mould Flow Field Yang Wengang , Liu Guoqi , Ma Tianfei and Li Hongxia (151)
2.20 p.m	Investigation of Premature Fracture of Silicon Carbide Plates Used in Ceramic Industry V. P. S. Ramos, D. R. Martin, V. A. Moraes, D. R. Soeiro, G. Cunha and V. Vasques (033)
2.40 p.m	Some Corrosion Phenomena in an Induction Furnace J. Pötschke and C. Brüggmann (200)
3.00 p.m	Design of Slags Compatible With Refractory Systems Ávila T. A, Freire R.S., Silva G.F.B.L and Borges R.N (245)

3.20pm	Does the MgO Content of the Blast Furnace Slag Affect the Performance of Main Troughs? V.G. Domiciano, M.A. Brito, T.A. Avila, A.P. Luz and V.C. Pandolfelli (141)
3.40pm	Influence of Raw Material Properties on High Temperature Reactions and Cracking in Spinel Forming Castables Thomas A. Bier, Christoph Liebrich and Stefan Holze (235)
4.00pm	Coffee Break

TIME
Fernando Pessoa 2 Room
Refractories for Cement and Lime / Aluminium
Chairmen
Makoto Ohno
Victor Manuel Garcia R

8.30am	Development of Chrome Free Refractories for Cement Kiln P.Sengupta and Nitesh K.Gupta (139)
8.50am	New Developments in Fired Doloma Brick Used in Rotary Cement Kilns Donald Griffin and Richard Knauss (152)
9.10am	A Basic Brick Containing Fused MgO-TiO ₂ -CaO Aggregates for Lime Furnace Waldir de Sousa Resende, Célio Avelino da Silva, Leonardo Curimbaba Ferreira, Fernando Vernilli, Henrique Varella Ribeiro and Sidiney Nascimento Silva and Antonio Carlos da Costa Onias (231)
9.30am	Practical Application of Mineralogical Variations for Cement Kiln Refractories Hans-Jürgen Klischat and Holger Wirsing (171)
9.50am	Effects of the in-Situ Formation of Barium Celsian on Aluminosilicate Castable Refractories Devdutt Shukla and Jeffrey D. Smith (234)
10.10am	Development of a Chrome-Free Basic Refractory Based on Eletrofused Magnesia-Calcium Zirconate Technology Using Spinel Addition for use in Cement Rotary Kilns Edén Rodríguez, G-Alan Castillo and Ana-Maria Guzman (072)
10.30am	Coffee Break
Chairmen	Arnaud Lafaurie P. Sengupta
11.00am	Steam Spalling Potential of Partial Monolithic Refractory Repairs Patrick McNamara (066)
11.20am	Advanced Ceramic Composites for Molten Aluminum Contact Applications James G. Hemrick and Klaus-Markus Peters (103)
11.40am	Effect of BaSO ₄ on the Interfacial Behaviour of Refractories With Aluminium Alloys Pramod Koshy, Sushil Gupta, Veena Sahajwalla and Phil Edwards (205)
12.00am	Systemic Analysis of Flue Wall Bricks Aiming the Anode Baking Furnace Performance Optimization P. R. T. Tiba, B. H. Teider, J. B. Gallo, V. C. Pandolfelli (142)
12.20pm	Properties and Microstructure of Metal Fe Reinforced Unburned Magnesia Alumina Brick for Cement Kiln Huazhi Gu, Houzhi Wang, Bin Yang, Yunsheng Feng, Linjun Wang and Yong Fan (124)
12.40pm	Lunch

Refractories for Aluminium Refractories for Glass, Petrochemical and others

Chairmen	Carlos Pagliosa James Hemrick
2.00 pm	Ammonia Incinerators: Monolithic Castable Failure Mechanisms and New Lining Concept For Reliability and Environmental Sustainability , L.H.R.M Gobbo, R.Serfaty, W. S.Resende, A. R Silva, V.C. Pandolfelli and J.A.Rodrigues (046)
2.20pm	Physical and Mechanical Behavior of Steel Fiber Reinforced Refractory Concrete after Exposure to High Temperatures Vanessa Gentil de Oliveira Almeida, Romildo Toledo Dias Filho and Luiz Fernando Lomba Rosa (218)
2.40pm	Study of Refractory Lining Performance of Heaters Fired with High Sulfur Fuel Oil Prasenjit Saha (222)
3.00pm	Study of the Corrosion Mechanisms of SiC Refractory Lining in Municipal Solid Waste-to-Energy Facilities P. Prigent, M.L. Bouchetou, J. Poirier and J.M Brossard (024)
3.20pm	Oxidation of Silicon Carbide: Influence on Thermal Expansion of SiC Castables Used in Waste-to-Energy Plants Alexandra Doncieux, Ouziyine Bahloul, Marc Huger, Christian Gault, Thierry Chotard and Pierre Meunier (144)
3.40pm	Global Impact to Energy Saving and CO2 Emission Reduction of Modern Lightweight Refractory Linings in Refinery and Petrochemical Heaters Marius Franek (275)
4.00pm	Coffee Break

TIME **Fernando Pessoa 3 Room** Refractories for Iron and Steelmaking

Chairmen	Pablo Valenzuela Yunge Shinji Adachi
8.30am	High ThermoMechanical Resistance MgO-C Bricks for Critical Areas of BOF Converters Carlos Pagliosa, Alfredo Veiga and Victor Carlos Pandolfelli (069)
8.50am	Semi-Calcined Magnesite as Innovative Slag Former Concept in Steelmaking Ulrich Meyn (087)
9.10am	The Development of Hot Repair Mix for BOF Kim Byungsu, Lee Jeha, Cho Yongmoon and Eum Changjung (208)
9.30am	Influence of the Slag Foaming Process Applied in High Alloyed Steel Production on Refractory Wear of EAF at Pilsen Steel Melt Shop Martin Novák, Jaroslav Straka and Michal Pribyl (073)
9.50am	Element Pick-Up in Liquid Steel from Tundish Lining Refractories Krausz I., Tassot P. and Turrel Ch (060)
10.10am	Industrial Performance of MgO-C Refractories with Different Type of Binders Used In Electric Arc Furnaces Erick J. Estrada, Livia J. González and Delia Gutiérrez-Campos (176)
10.30am	Coffee Break
Chairmen	Patrick Tassot
11.00am	Tundish Nozzle Changer for Billet & Beam Blank Caster Hyoung-Gon Lee, Chul-Young Park, Yong-Han Na, Sang-Arm Lee, Kyu-Chang Kim and Sik Sunwoo (150)
11.20am	Dry – Vibrating Mixes Versus Wet – Gunning Mixes: New Material Concepts

	and Lining Technologies with Respect to Clean Steel Production R. Bross, R. Fechner, O. Pawlig and G. Ratto (243)
11.40am	Development of High Durable SN Plate Material by New Bonding System Masako Takenami, Keiichiro Akamine, Jouki Yoshitomi and Tsuneo Kayama (174)
12.00am	Improved Basic Carbon Refractory Material for Sliding Gate Plate Application Mark R. Snyder, Alireza Rezaie and Priyadarshi G. Desai (249)
12.20pm	Thermo-Mechanical Properties of Al ₂ O ₃ -SiC-SiAlON on Slide Plate Materials Xinhong Liu, Tiezhu Ge, Fangbao Ye and Xiangchong Zhong (126)
12.40pm	Lunch
Chairmen	Masako Takenami Vladnilson Peter de Souza Ramos
2.00pm	Influence of Mixing Process on Properties and Microstructure of Al ₂ O ₃ -ZrO ₂ -C Slide Plate Peng Dejiang, He Zhongyang and Quan Yan (163)
2.20pm	Composite Design Technology for High Performance Sliding Gate Mark R. Snyder, Priyadarshi G. Desai, Alireza Rezaie and Duane L. DeBastiani (250)
2.40pm	Development of Versatile Slide Gate Plate for Casting Most of the Critical Steelgrades Including Calcium-Alloy-Treated Steel J. Chaudhuri, S.K. Shrivastava, K. Sarda and P. Bajoria (257)
3.00pm	Development of MgO-C Slide Gate Plate for Ladles Used in the API Grade Steel Casting C.M Galinari, C.P. Neto and A.R.Vasconcelos (260)
3.20pm	Automatic Face-Pressure Loading Slide Gate Valve Equipment Shinji Adachi, Masanori Ogata, Mototsugu Osada and Kenji Yamamoto (173)
3.40pm	Interaction between a Silicon Carbide Containing Ramming Paste and Liquid Ashes during Biomass Gasification Laetitia Colombel, Jacques Poirier and Jean Marie Seiler (027)
4.00pm	Coffee Break

TIME

Fernando Pessoa 4 Room

Castables and other Monolithics Technology

Chairmen

James W. Stendera

Juan Esteban Navarro

8.30am	Reducing the Damages of MgO Hydration on Refractory Castables Rafael Salomão and Victor Carlos Pandolfelli (056)
8.50am	Characterisation of Alumina-Magnesia Castables after Firing in Expansion Controlled Environment Jérôme Soudier, Pierre Meunier and Vincent Nozahic (061)
9.10am	Microsilica Road-Map for Alumina-Magnesia Castables Expansion M. A. L. Braulio, M. A. M. Brito and V. C. Pandolfelli (097)
9.30am	Mullite Formation, High-Temperature Properties of AndalusiteAlumina Based LCC and ULCC Roy Hagen, Cécile Lamy, Bjørn Myhre and Hong Peng (105)
9.50am	Hydration and Dehydration Evolution of Calcium Aluminate Cements in the Presence of Various Forms of MgO Teresa Durán, Pilar Pena, Salvador De Aza, Antonio. H. De Aza, Ignacio Recio Domínguez, Jesús Gómez Millán and Margarita Alvarez (104)
10.10am	Enhancing Cold and Hot Strengths of SiC-Based Castables by "In Situ" Formation of SiAlON Through Nitridation Wang Huifang, Zhou Ningsheng and Zhang Sanhua (179)
10.30am	Coffee Break

Castables and other Monolithics Technology

Chairmen **Antonio H. De Aza**
Charles E. Semler

11.00am	Thermomechanical Behaviour of Fibre Reinforced Refractory Castables Thierry Cutard, Aurélien Mazzoni and Fabien Nazaret (045)
11.20am	Properties of High Alumina Refractory Castables Based on the Use of State of the Art Electro Fused Corundum In Combination With High Quality Binder Types Angelika Ressler, Sebastian Sachse, Christoph Woehrmeyer and Christopher Parr (101)
11.40am	Thermo-Mechanical Behavior of Al ₂ O ₃ -SiO ₂ -SiC-C Refractory Castables A.P. Luz, F.A.O. Valenzuela, V.G. Domiciano, M.A.M. Brito and V.C. Pandolfelli (120)
12.00am	Hot Erosion Evaluation of Fluid Flash Calciner Refractory Castables L. R. G. Gonçalves and V. C. Pandolfelli (094)
12.20pm	Role of in-Situ and Ex-Situ Alumina Phase on Anomalous Setting Behavior of Calcium Aluminate Cement Bhakta Bandhu Sahu, Bharati Krushna Panda, Bashir Mohammed and Nilachala Sahoo (217)
12.40pm	Lunch

Slag Corrosion / Others

Chairmen **Bjorn Myhre**
Angelika Ressler

2.00pm	Slags Wettability on High Carbon Containing Castable Matrix A.P. Luz, S. Ribeiro, V.G. Domiciano, M.A.M. Brito and V.C. Pandolfelli (119)
2.20pm	Dissolving Behavior of Al ₂ O ₃ -SiC-C Castables Into Blast Furnace Slag Masakazu Iida and Kazuhiro Ogura (070)
2.40pm	Investigation of Slag Corrosion by Fluid Dynamics Calculations Sandra Vollmann, Harald Harmuth and Dietman Gruber (086)
3.00pm	How Electro Capillarity Affects Refractory Corrosion J. Pötschke (199)
3.20pm	Extending Refractory Service Life through Thermodynamic Modelling of EAF Slag Chemistry Kyei-Sing Kwong, James Bennett, Rick Krabbe, Art Petty and Hugh Thomas (237)
3.40pm	Slag and Molten Steel Attack Resistance of High Alumina Refractory Castables with Spinel, Periclase and Dolomite Additions L.A. Diaz, M. Miranda and R. Torrecillas (276)
4.00pm	Coffee Break

TIME **Zélia Gattai Room** **Advanced Testing of Refractories**

Chairmen **Peter Quirnbach**
Vladnilson Peter de Souza Ramos

8.30am	Thermo-Mechanical Properties and Microstructure Characterization of Electrofused Zirconia Materials Cédric Patapy, Christian Gault, Marc Huger and Thierry Chotard (128)
8.50am	Mechanical and Thermal Shock Behaviour of Al ₂ O ₃ -SiO ₂ -ZrO ₂ Refractories Nicolás Rendtorff, Alberto Scian and Esteban Aglietti (054)
9.10am	Study of the Young's Modulus and Damping Changes in a Refractory Castable due to Thermal Shock Damage A. H. A. Pereira, G. M. Fortes, J. A. Rodrigues, B. Schickle, T. Tonnesen and B. Musolino (111)
9.30am	Resonant Frequency and Damping Analysis of Refractories with and without Reduced Brittleness Christian Manhart and Harald Harmuth (047)

9.50am	Application of Mesoscale Analysis to Refractories (Microstructure Originated Mechanical Behavior) Hidetoshi Kamio, Seiya Hagihara, Yuichi Tadano, Mitsuo Sugawara and Tsuneo Kayama (175)
10.10am	Correlation Between Elastic Properties Obtained by Ultrasonic and Resonance Techniques with Stress-Strain Laws Obtained by Tensile Tests Renaud Grasset-Bourdel, Cédric Patapy, Marc Huger, Thierry Chotard, Emilie Dahlem and Christian Manhart (155)
10.30am	Coffee Breako
Chairmen	Valmy Artus Gomes de Oliveira J. Pötschke
11.00am	High Temperature Mechanical Behavior of Al ₂ O ₃ -MgO-C Refractories: Stress-Strain Curves C.A. Calafiore, A.L. Cavalieri, V. Muñoz, A.G. Tomba Martinez and P.G. Galliano (193)
11.20am	Experimental Study of the Microstructure and Mechanical Properties of a Refractory Castable Containing Andalusite as Aggregate Sintered at 1000°C and 1450°C S. Ribeiro, G. C. R. Garcia, E. M. B. Santos, W. S. Resende and J. A. Rodrigues (122)
11.40am	Impact of Thermal Shock and Related Microstructural Changes on Elastic Properties of Refractories by Non-Destructive Impulse Excitation Thorsten Tonnesen and Rainer Telle (197)
12.00am	Aluminium Titanate as Model Material to Promote Thermal Shock Resistance of Refractory Materials C. Babelot, A. Guignard, P. Michaud, N., Tessier-Doyen, C. Gault, M. Huger, T. Chotard, N. Adachi, T. Ota and I. Sato (204)
12.20pm	High Temperature Stress-Strain Behavior of Aluminous Refractory Concretes for Steelmaking Use P.G. Galliano, L. F. Martorello and A.G. Tomba Martinez (195)
12.40pm	Lunch
Advanced Testing of Refractories / Others	
Chairmen	J.A.Rodrigues Paschoal Bonadia Neto
2.00pm	Resonant Frequency and Damping Analysis Technique as a Tool to Investigate Elastic Moduli by the Microstructure Alteration of Refractories at Elevated Temperature E.Dahlem , C.Manhart , R.Grasset-Bourdel , M.Huger and T.Chotard (201)
2.20pm	Energy and Time Saving in the Reheating Furnaces P. Tassot, F. Malandain, F. Etienne and B. Gety (058)
2.40pm	Improvement of Refractory Lifetime in Vitrification Units for the Treatment of Hazardous Waste E.Edme, U. Michon and J. Poirier (026)
3.00pm	The Improvement of Al ₂ O ₃ -Cr ₂ O ₃ Bricks for Waste Melting Furnaces Makoto Ohno, Hiroyuki Tanida, Yoshiki Tsuchiya and Yoshiharu Kajita (186)
3.20pm	Research on Abrasive Resistance of Several Kinds of Refractory Products at Elevated Temperature Xigao Peng, Gan Shi, Xiaoli Wang and Jialin Sun (159)
3.40pm	Influence of Magnesium Sulfate Solution Impregnation on Hydration Resistance of Magnesia-Chrome Bricks Renhong Yu, Ningsheng Zhou, Qingxin Meng, Xiaoma Zhu, Jiehua Liu and Baoyu Wang (211)
4.00pm	Coffee Break