INFACON XII – 6-9 JUNE, 2010, HELSINKI, FINLAND.

ACCEPTED TECHNICAL PAPERS FOR INFACON XII PROCEEDINGS

The papers are divided into oral and poster presentations. The final technical program schedule with three parallel sessions is under preparation.

ORAL PRESENTATIONS

Commercial aspects: Applications and Uses	SHS-TECHNOLOGY OF FERROALLOYS NITRIDING	Ziatdinov M.Kh., Shatokhin I.M. Tomsk State University, Russia NTPF ETALON, Magnitogorsk, Russia
Commercial aspects: Applications and Uses	LOW-NICKEL AUSTENITIC STAINLESS STEELS: METALLURGICAL CONSTRAINTS	P. Chris Pistorius and Madeleine du Toit, Department of Materials Science and Engineering, Carnegie Mellon University USA, Department of Materials Science and Metallurgical Engineering, University of Pretoria, South Africa
Commercial aspects: Markets	CHANGES IN THE NORTH AMERICAN FERROALLOYS INDUSTRY STRUCTURE AND TRENDS IN THE INDUSTRY DURING THE PAST 20 YEARS	Didaleusky, J.R., Jorgenson, J.D., Corathers, L.A., Fenton, M.D., Kuck, P.H., Papp, J.F., Polyak, D.E., Shedd, K.B. U.S. Geological Survey, Reston, USA
Commercial aspects: Markets	CURRENT SITUATION AND MAIN TRENDS OF DEVELOPMENT OF RUSSIAN FERRO-ALLOYS INDUSTRY	L.I. Leontyev, V.I. Zhuchkov. Institute of Metallurgy of Ural Division of RAS, Ekaterinburg, Russia
Commercial aspects: Resources and Raw Materials	CURRENT STATE AND PROSPECTS OF FERROALLOY INDUSTRY IN KAZAKHSTAN	M. Tolymbekov, S. Baisanov, S. Kim, Chemical-Metallurgical Institute, Kazakhstan
Energy and environment: EHQS	BIOACCESSIBILITY OF FERRO-CHROMIUM AND FERRO-SILICON-CHROMIUM PARTICLES COMPARED TO PURE METALS AND STAINLESS STEEL – ASPECTS OF HUMAN EXPOSURE.	K. Midander[1], A. de Frutos[1,2], Y. Hedberg[1], G. Darrie[3], I. Odnevall Wallinder[1] 1) Div. Surface and Corrosion Science, School of Chemical Science and Engineering, KTH, Stockholm, Sweden 2) Centro Nacional de Investigaciones Meta Centro Nacional de Investigaciones Metalúrgicas, Madrid, Spain 3) International Chromium Development Association, Paris, France
Energy and environment: EHQS	IMPROVING ENVIRONMENT IN THE TAPPING AREA OF A FERROMANGANESE FURNACE	Benjamin Ravary[1] and Svend Grådahl[2] 1 ERAMET Norway AS, c/o Sintef, Trondheim, Norway 2 Sintef Materials and Chemistry, Trondheim, Norway
Energy and environment: Energy	MEETING THE CHALLENGE OF SUSTAINABILITY THROUGH TECHNOLOGY DEVELOPMENT AND INTERGRATION IN FERROCHROME SUBMERGED ARC FURNACE PLANT DESIGN	Miguel Dos Santos, TENOVA Pyromet, Johannesburg, South Africa
Energy and environment: Environment	SILICON PROCESS- NEW HOOD DESIGN FOR TAPPING GAS COLLECTION	M. Kadkhodabeigi[1], H. Tveit[2] and K. H. Berget[3] 1 Department of Materials Science and Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway; 2 Elkem Thamshavn, Orkanger, Norway; 3 Elkem Silicon Solutions, Oslo, Norway
Energy and environment: Environment	CONTINUOUS IMPROVEMENT FOR FUGITIVE EMISSIONS CONTROL	Lowy Gunnewiek[1], Benjamin Ravary[2], and Peter Cowx[3] 1Hatch Ltd., Mississauga, Ontario, Canada 2 Eramet Norway AS, c/o Sintef Materials and Chemistry, Trondheim, Norway 3 Eramet Norway Sauda AS, Sauda,
Energy and environment: Environment	DESIGN OF TAPPING FUME EXTRACTION SYSTEMS FOR FERROALLOY FURNACES	Luthie Els[1], Chris Coetzee[2], Olof Vorster[3], 1 Consulto Enviro CC, Centurion, South Africa 2 Resonant Solutions (Pty) Ltd, Centurion, South Africa 3 Resonant Environmental Technologies (Pty) Ltd, Centurion, South Africa
Energy and environment: Environment	MAJOR FERROALLOY PRODUCER IMPROVES FURNACE FUME CONTROL SYSTEM BY INSTALLING BAGHOUSE WITH MEMBRANE FILTER BAGS	Frank Fereday – W.L. Gore and Associates, Inc. Olof Vorster – Resonant Environmental Ltd Luther Els – Consulto Enviro
Energy and environment: Environment	THEORETICAL AND PRACTICAL ASPECTS OF Cr(VI) IN THE SOUTH AFRICAN FERROCHROME INDUSTRY	JP Beukes [1], NF Dawson [2] and PG van Zyl [1], 1) Chemical Resource Beneficiation, North-West University, Potchefstroom, South Africa, 2) Xstrata Alloys, Rustenburg, South Africa
Energy and environment: Kyoto Protocol	HOW THE FERROALLOYS INDUSTRY CAN MEET GREENHOUSE GAS REGULATIONS	T. Lindstad, B. Monsen and K. S. Osen SINTEF Materials & Chemistry, Trondheim, Norway

Energy and environment: REACH	USE OF READ-ACROSS IN THE HEALTH RISK ASSESSMENT OF FERROCHROMIUM ALLOYS UNDER REACH	Tiina Santonen, Helene Stockmann-Juvala, Antti Zitting, Finnish Institute of Occupational Health, Helsinki, Finland
Energy and environment: Recycling	PROCESSING OF MANGANESE FURNACE DUST: DRYING AND ZINC OXIDE REDUCTION	Tasuku HAMANO[1], Ruihua Shen[1], Guangqing ZHANG[1], Peter BROWN[2] and Oleg OSTROVSKI[1] 1) University of New South Wales, 2) Tasmanian Electrometallurgical Company
Energy and environment: Recycling	HIGH PURITY Mn METAL FROM Mn OXIDE DUST PRODUCED BY FeMn REFINING PROCESS	Kwang J. Lee, Dong S. Min, Chan S. Park, Young K. Park, Hae C. Cho, Seong H. Hong Dongbu Metal Co., Donghae, Gangwon-do, Korea
Energy and environment: Recycling	RECYCLING OF WASTE MATERIALS FROM THE PRODUCTION OF FeMn AND SiMn	Sean Gaal1, Merete Tangstad2 , Benjamin Ravary3 1 SINTEF Materials and Chemistry, Trondheim, Norway 2 Norwegian University of Science and Technology, Trondheim, Norway 3 Eramet Norway, Trondheim, Norway
Energy and environment: Recycling	RECOVERY OF VANADIUM FROM V-BEARING BOF-SLAG USING AN EAF	Mikael Lindvall, Guozhu Ye MEFOS Metallurgical Research Institute Luleå, Sweden and Staffan Rutqvist SSAB StripProducts, Luleå, Sweden
Engineering aspects and concepts: Electrodes and Control	ADVANCED MODELLING AND BAKING OF SÖDERBERG ELECTRODES	Reinier Meyjes, Jacques Venter, Uys van Rooyen Metix (PTY) LTD, Johannesburg, South Africa
Engineering aspects and concepts: Furnace Design and Equipment	DEVELOPMENTS IN THE DESIGN AND CONSTRUCTION OF DC ARC SMELTING FURNACES	F.P. Greyling, W. Greyling and F.I. de Waal GLPS, Middelburg, South Africa
Engineering aspects and concepts: Furnace Design and Equipment	EVALUATING AC AND DC FURNACE WATER COOLING SYSTEMS USING CFD ANALYSIS	Bennie Henning, Mike Shapiro, Frik Marx, Jacques Beyleveld, Derek Pienaar, Heino Nel Bateman Engineering Projects, East Rand, South Africa
Engineering aspects and concepts: Furnace Design and Equipment	APPLICATION OF HIGH INTENSITY REFRACTORY COOLING SYSTEMS IN PYROMETALLURGICAL VESSEL DESIGN	F. Marx, M. Shapiro, B. Henning Bateman Engineering Projects, East Rand, South Africa
Engineering aspects and concepts: Furnace Design and Equipment	SAF WATER LEAK DETECTION BY THE MEASUREMENT OF GASEOUS WATER VAPOUR IN OFF GAS	Paul Dennis, BHPBilliton Manganese (TEMCO) Dr. Samir Ganguly, Hatch
Engineering aspects and concepts: Furnace Design and Equipment	LOW COST FERROALLOY EXTRACTION IN DC-ARC FURNACE AT MIDDLEBURG FERROCHROME	D. Sager[1], D. Grant[2], R. Stadler[3] and T. Schreiter[4] 1 ABB Switzerland Ltd., Turgi, Switzerland; 2 Middleburg Ferrochrome (a company in Samancor Chrome), Middleburg, South Africa; 3 ABB Switzerland Ltd., Turgi, Switzerland; 4 ABB Germany Ltd., Mannheim, Germany
Engineering aspects and concepts: Lining	NEW REFRACTORY LINING DIRECTION AT JINDAL STAINLESS FECR FURNACES #1 AND #2	C. Coetzee [1], P.H. Lamont [2], P. Sylven [3], S.N. Mishra [4] 1 GrafTech Refractory Systems, South-Africa. 2 IRCI, South-Africa, 3 GrafTech Refractory Systems, USA 4 Jindal Stainless, India
Engineering aspects and concepts: Lining	REFRACTORY WEAR AND LINING PROFILE DETERMINATION IN OPERATING ELECTRIC FURNACES USING STRESS WAVE NON-DESTRUCTIVE TESTING (NDT)	Afshin Sadri and Pawel Gebski; Hatch Ltd.
Fundamentals, Theory: Chromium Fundamentals, Development	A THERMODYNAMIC STUDY ON THE OXIDATION OF SILICON, CARBON AND CHROMIUM IN THE FERRO-CHROME CONVERTER	Heikkinen Eetu-Pekka (University of Oulu), Ikäheimonen Topi (Outokumpu stainless), Mattila Olli (University of Oulu) & Fabritius Timo (University of Oulu)
Fundamentals, Theory: Chromium Fundamentals, Development	A LABORATORY INVESTIGATION OF INFLUENCE OF ELECTRIC CURRENT ON THE BURDEN REACTIONS IN A SUBMERGED ARC FURNACE	Arto Rousu, Olli Mattila and Pekka Tanskanen. Laboratory of Process Metallurgy, University of Oulu, Finland.
Fundamentals, Theory: Chromium Fundamentals, Development	SUSTAINABLE SMELTING FURNACE PERFORMANCE IMPROVEMENT AT ASSMANG CHROME THROUGH EMBEDDED PROCESS KNOWLEDGE	Dr J.H Zietsman - Ex Mente; Mr. J Muller - Ex Mente; Mr. D Boshoff - Assmang Chrome
Fundamentals, Theory: Chromium Fundamentals, Development	PRELIMINARY CHARACTERIZATION OF THE SAMPLES TAKEN FROM SUBMERGED ARC FERROCHROME FURNACE DURING OPERATION	Janne Ollila Outotec, Pekka Niemela Outokumpu Tornio Works, Arto Rousu University of Oulu
Fundamentals, Theory: Chromium Fundamentals, Development	NEW TECHNOLOGIES OF CHROMIUM AND MANGANESE FERRO-ALLOYS PRODUCTION FROM SUBSTANDARD AND OFFGRADE RAW MATERIALS	V.I. Zhuchkov, O.V. Zayakin, A.V. Zhdanov (Institute of Metallurgy of Ural Division of RAS; Urals State Technical University – UPI)
Fundamentals, Theory: Chromium Fundamentals, Development	PRE-REDUCTION AND SMELTING CHARACTERISTICS OF KAZAKHSTAN ORE SAMPLES	S D McCullough – Mintek, S A C Hockaday - Mintek ,N A Barcza - Oriel Resources, C Johnson - Cardiff University
Fundamentals, Theory: Chromium Fundamentals, Development	EFFECTS OF OXIDATION ON THE MICROSTRUCTURE AND REDUCTION OF CHROMITE PELLETS	Baojun Zhao and Peter Hayes, PYROSEARCH, Pyrometallurgy Research Centre, School of Engineering, The University of Queensland, Australia

Fundamentals, Theory: Manganese Fundamentals, Development	DECREPITATION OF BRAZILIAN MANGANESE LUMP ORES	G. L. Faria[1], N.C.S. Vianna[2], N. Jannotti[2], C. B. Vieira[1], F. G. da Silva Araújo[1] 1 Rede Temática em Engenharia de Materiais (REDEMAT/UFOP), Ouro Preto (MG), Brazil; 2 VALE/ Manganese and Alloys Department, Águas Claras, Nova Lima (CONFERIR) (MG), Brazil;
Fundamentals, Theory: Manganese Fundamentals, Development	LOW TEMPERATURE CARBOTHERMAL REDUCTION OF SILICEOUS MANGANESE FINES	Ring Kononov[1], Oleg Ostrovsk[1] and Samir Ganguly[2] 1) University of New South Wales, Australia; 2) HATCH, Australia
Fundamentals, Theory: Manganese Fundamentals, Development	REACTION OF MANGANESE CONTAINING SLAG WITH CARBON SUBSTRATE	Haiping Sun[1,2], M. Yaser Lone[1], Samir Ganguly[3] and Oleg Ostrovski[1] 1) School of Material Science and Engineering, University of New South Wales, Australia, 2) R&D Department, China Steel Corporation, Taiwan; 3) HATCH, Australia
Fundamentals, Theory: Manganese Fundamentals, Development	PROPERTIES OF MANGANESE ORES AND THEIR CHANGE IN THE PROCESS OF CALCINATION	Bjørn Sorensen[1], Sean Gaal[2], Merete Tangstad[1], Eli Ringdalen[2], Ring Kononov[3] and Oleg Ostrovski[3] 1)NTNU, Norway, 2)SINTEF, Norway, 3)UNSW, Australia
Fundamentals, Theory: Manganese Fundamentals, Development	SLAG-CARBON REACTIVITY	Jafar Safarian and Merete Tangstad Norwegian University of Science and Technology (NTNU), Trondheim, Norway
Fundamentals, Theory: Manganese Fundamentals, Development	THERMODYNAMICS OF THE SYSTEM FeO–MnO–V2O5	Rossitza Paunova, Maxim Marinov University of Chemical Technology and Metallurgy, Department of Ferrous Metallurgy and Metal Foundry, Sofia, Bulgaria
Fundamentals, Theory: Manganese Fundamentals, Development	COMPARISON OF FERROMANGANESE ALLOY SMELTING IN PILOT-SCALE AC AND DC SUB-ARC FURNACES	H. Lagendijk, B. Xakalashe, and T. Ligege Mintek, Randburg, South Africa
Fundamentals, Theory: Manganese Fundamentals, Development	BEHAVIOR OF AGGLOMERATES IN FERROMANGANESE PRODUCTION	MM. Tangstad[1], D. Leroy[1], E. Ringdalen[2] 1 NTNU, Trondheim, Norway; 2 SINTEF, Trondheim, Norway
Fundamentals, Theory: Manganese Fundamentals, Development	THERMODYNAMICS OF CARBON REFINING BY MOLTEN SLAGS FROM THE FERROMANGANESE MELTS	Mr. Geun Ho Park and Prof. Joo Hyun Park; School of Materials Science and Engineering, University of Ulsan, Korea / Mr. Hae Chang Jo; Technology Development Team, Dongbu Metal, Donghae, Korea
Fundamentals, Theory: Manganese Fundamentals, Development	KINETIC OF NITRIDING PROCESS OF FERROMANGANESE ALLOY	Saeed N. Ghali, Kamal M. El- Fawakhry, Mamdouh .M. Eissa & Micheal .L. Mishreky Central Metallurgical Research & Development Institute (CMRDI), Helwan, Egypt.
Fundamentals, Theory: Manganese Fundamentals, Development	UPGRADING OF Mn / Fe RATIO OF LOW-GRADE MANGANESE ORE FOR FERROMANGANESE PRODUCTION	Helge Krogerus, Outotec Research Oy, Pori Visa Kivinen, Outotec Jorma Daavittila, Outotec
Fundamentals, Theory: Modelling and Simulation	MODELLING AND OPTIMISATION OF ANTHRACITE TREATMENT IN AN ELECTROCALCINATOR	M. M. Gasik[1], M. I. Gasik[2], O. Yu. Urazlina[3], and S. V. Kutuzov[3] 1 TKK – Helsinki University of Technology, Finland; 2 National Metallurgical Academy of Ukraine, Dnipropetrovsk, Ukraine 3 JSC "Ukrgrafit", Zaporizhzhya, Ukraine
Fundamentals, Theory: Modelling and Simulation	THERMODYNAMICAL COMPUTATIONS IN CARBOTHERMAL AND METALLOTHERMIC FERROALLOY PROCESSES	Bora Derin Istanbul Technical University, Faculty of Chemistry and Metallurgy, Department of Metallurgical and Materials Engineering, Istanbul, Turkey
Fundamentals, Theory: Modelling and Simulation	COMPUTATIONAL MODELLING OF THE DYNAMIC BEHAVIOUR OF DIRECT CURRENT PLASMA ARCS	QG Reynolds (Mintek South Africa), RT Jones (Mintek South Africa), and BD Reddy (University of Cape Town, South Africa)
Fundamentals, Theory: Modelling and Simulation	DYNAMIC PROCESS SIMULATOR FOR FERRO ALLOY SMELTERS	Harmen Oterdoom and Dr. Rolf Degel* SMS Siemag, Düsseldorf, Germany
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	THERMOCHEMICAL AND KINETIC DATABASES FOR THE SOLAR CELL SILICON MATERIALS	Kai Tang[1], Eivind J. Øvrelid[1], Gabriella Tranell[2], Merete Tangstad[2] 1 SINTEF Materials and Chemistry, Trondheim, Norway; 2 Norwegian University of Science and Technology, Trondheim, Norway
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	VANADIUM RECOVERY AS FeV FROM PETROLEUM FLY ASH	Yanping Xiao, Cyril R. Mambote, Heikki Jalkanen, Yongxiang Yang and Rob Boom Department of Materials Science and Engineering, Delft University of Technology, the Netherlands

Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	OXIDATION KINETICS OF FERROCHROME UNDER CONTROLLED OXYGEN PRESSURES	Haijuan Wang[1], Nurni N. Viswanathan[2] and Seshadri Seetharaman[1] 1)Division of Materials Process Science, Royal Institute of Technology, Stockholm, Sweden 2)Department of Metallurgical Engineering, Indian Institute of Technology Bombay, Mumbai, India
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	PHENOMENA IN THERMAL TREATMENT OF LATERITIC NICKEL ORES UP TO 1300ºC	Ali Bunjaku, Marko Kekkonen and Lauri Holappa Department of Materials Science and Engineering, Helsinki University of Technology, Finland
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	MANGANESE ORE AND ALLOYS PILOTING TOOLS AT ERAMET RESEARCH	Aude Soller, Aurélie Amalric, Gaël Pochart and Gilles Nussbaum, ERAMET RESEARCH, Pyrometallurgy Department, Trappes Cedex, France
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	REACTION ZONES IN A FeSi75 FURNACE – RESULTS FROM AN INDUSTRIAL EXCAVATION	G. Tranell*, M. Andersson**, E. Ringdalen***, O. Ostrovski **** and J. J.Steinmo***** *Department of Materials Science and Engineering, NTNU, Norway **Luleå University of Technology, Sweden (presently with NTNU) *** SINTEF Materials and Chemistry, Norway ****The University of New South Wales, Australia *****Finnfjord AS
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	SLAG PHASE EQUILIBRIA AND VISCOSITIES IN FERRONICKEL SMELTING SLAGS	E. Jak and P.C. Hayes, PYROSEARCH, Pyrometallurgy Research Centre, School of Engineering, The University of Queensland, Australia
Fundamentals, Theory: Reductants	INFLUENCE OF COKE PARTICLE SIZE ON THE ELECTRICAL RESISTIVITY OF COKE BEDS	Per Anders Eidem*, Merete Tangstad** and Jon Arne Bakken** *Eramet Norway AS, c/o Sintef Materials and Chemistry, Trondheim, Norway, previously with **Department of Materials Science and Technology, Trondheim, Norway
Fundamentals, Theory: Reductants	REDUCTANT CHARACTERIZATION AND SELECTION FOR FERROCHROMIUM PRODUCTION	G Makhoba and R Hurman Eric School of Chemical and Metallurgical Engineering University of the Witwatersrand, Johannesburg , South Africa
Production Technologies and Operation: Chromium Alloys Production and Operation	REFINING OF CHARGE-CHROME; A STUDY OF SOME PRODUCTS AND APPLICATIONS	C-J. Rick1 Uvån Hagfors Teknologi AB
Production Technologies and Operation: Chromium Alloys Production and Operation	RESEARCH & DEVELOPMENT INITIATIVES ON THE BRIQUETTING TECHNOLOGY AND ITS COMMERCIALISATION FOR RICHARDS BAY PLANT	R. Sen , D. Mukherjee, Jan Jansen Van Vuuren, Willem DeVilliers, S. Banerjee, Tata Steel (Kzn) (Pty) Limited, South Africa
Production Technologies and Operation: Chromium Alloys Production and Operation	PARAMETERS AFFECTING ON PRODUCTION OF EXTRA LOW CARBON FERROCHROMIUM FROM LOW GRADE CHROMITE ORE	Mamdouh Eissa*, Kamal El-Fawakhry*, Micheal Lamei* and Hoda El-Faramawy* Steel Technology and Ferroalloys Department, CMRDI, Egypt
Production Technologies and Operation: Chromium Alloys Production and Operation	SOME ASPECTS OF THE PRODUCTION OF FERROCHROME ALLOYS IN PILOT DC ARC FURNACES AT MINTEK	S.A.C. Hockaday and K. Bisaka Council for Mineral Technology, Randburg, South Africa
Production Technologies and Operation: Ferro Nickel Production and Operation	IMPLEMENTATION OF THE FIRST COMMERCIAL SCALE DC SMELTER FOR FERRONICKEL PRODUCTION FROM LOW GRADE LATERITIC ORES – TECHNOLOGY BUILDING BLOCKS AND LESSONS LEARNED	C.P. Naudé and M.D. Shapiro Bateman Engineering Projects, East Rand, South Africa
Production Technologies and Operation: Ferro Nickel Production and Operation	HIGH POWER, SHIELDED ARC FENI FURNACE OPERATION – ISSUES AND SOLUTIONS	C. Walker, Hatch
Production Technologies and Operation: Ferro Nickel Production and Operation	SNNC: A NEW FERRONICKEL SMELTER IN KOREA	L. Rodd [1], S. H. Lee [2], K. Y. Lim [2], JeHyeung Yoo [2], S.-J. Roh [2], J.-H. Park [2], F. Stober [1] and B. Wasmund [1], 1) Hatch, 2800 Speakman Drive, Mississauga, Ontario, Canada, L5K 2R7; 2) SNNC, 700 Gumho dong, Gwangyang-si, Jeonnam, Korea
Production Technologies and Operation: Ferro Nickel Production and Operation	RELEVANT ASPECTS RELATED TO PRODUCTION OF IRON NICKEL ALLOYS (PIG IRON CONTAINING NICKEL)IN MINI BLAST FURNACES	P. von Krüger[1], V. Seshadri[2], C. A. Silva[1], Cláudio Batista Vieira[1], F. G. S. Araújo[1] 1 REDEMAT, UFOP-Federal University of Ouro Preto, Brazil; 2 Federal University of Minas Gerais, Brazil
Production Technologies and Operation: Ferro Silicon Production and Operation	CURRENT DISTRIBUTION IN SUBMERGED ARC FURNACES FOR SILICON METAL / FERROSILICON PRODUCTION	G. Saevarsdottir [1] and J. A. Bakken [2,] 1) School of Science and Engineering, Reykjavik University, 2) Department of Materials Science and Engineering, Norwegian University of Science and Technology, Trondheim, Norway

Production Technologies and Operation: Ferro Silicon Production and Operation	WASTE HEAT UTILIZATION FROM A SUBMERGED ARC FURNACE PRODUCING FERRO SILICON	Gudrun Saevarsdottir [1], Heimir Hjartarson [2], Halldor Palsson [2], 1) School of Science and Engineering, Reykjavik University, 2) School of Engineering and Natural Science, University of Iceland
Production Technologies and Operation: Ferro Silicon Production and Operation	ENERGY BALANCE OF A 45 MW (FERRO-) SILICON SUB-MERGED ARC FURNACE	Nils Eivind Kamfjord [1], Edin H. Myrhaug [2] 1 Norwegian University of Science and Technology, Department of Materials Technology, Trondheim, Norway 2 Elkem Silicon, Trondheim,
Production Technologies and Operation: Manganese Alloys Production and Operation	ELECTRIC PARAMETERS FOR AN EFFICIENT SMELTING PERFORMANCE OF HCFeMn ALLOY	Young E. Lee and Merete Tangstad Dongbu Metal Co., Korea, Norwegian University of Science and Technology, Trondheim, Norway
Production Technologies and Operation: Manganese Alloys Production and Operation	THE EFFECT OF ORE PROPERTIES ON MELTING AND REDUCTION REACTIONS IN SILICOMANGANESE PRODUCTION	Eli Ringdalen[1], Merete Tangstad[2], Oleg Ostrovski[3] , Sean Gaal[1] 1: SINTEF Materials and Chemistry, Trondheim Norway. 2: NTNU, Department of Materials Science and Engineering, Trondheim, Norway. 3: UNSW Sydney, Australia
Production Technologies and Operation: Manganese Alloys Production and Operation	OPERATIONAL IMPROVEMENTS OF NO.1 SUBMERGED ARC FURNACE IN KASHIMA WORKS (KF-1) RELINED IN 2006	Kiyoshi Ichihara,Toshihiko Honma and Takeshi Ishitobi Chuo Denki Kogyo Co.,Ltd., Kashima Works,,Japan
Production Technologies and Operation: Manganese Alloys Production and Operation	DEVELOPMENT OF A DYNAMIC MODEL OF THE MANGANESE OXYGEN REFINING (MOR) PROCESS IN A CLU CONVERTER	Bouwer, H. [1], Visser, M.[1], Nell, J. [2] and Nolet, I.[2] 1 African Rainbow Minerals, Sandton, South Africa, 2 Hatch Africa, Gallo Manor, South Africa
Production Technologies and Operation: Manganese Alloys Production and Operation	THE EFFECT OF POTASSIUM AND ZINC CIRCULATION ON AGGLOMERATION AND GAS-DYNAMICS OF A CHARGE IN SAF	Dmitry Slizovskiy, Merete Tangstad, Norwegian University of Science and Technology/Department of Materials Science and Engineering
Production Technologies and Operation: Manganese Alloys Production and Operation	COMPLEX PROCESSING OF IRON-MANGANESE ORE OF CENTRAL KAZAKHSTAN	Ye. Samuratov, A. Baisanov, M. Tolymbekov, Chemical-Metallurgical Institute, Kazakhstan
Production Technologies and Operation: Other Ferro Alloys (FeNb, FeMo, FeV, e.g.) Production and Operation	NEW TiO2 SLAG PLANT FOR CYMG USING 30 MW DC FURNACE	Andre de Jong[1], David Mitchell[2], 1 Bateman Engineering Pty Ltd, Milton Queensland, Australia; 2 Bateman Engineering Projects, Pyrometallurgical Technologies, East Rand, South Africa
Production Technologies and Operation: Presmelting Operations	REDUCTION OF CHROMITE FINES IN SOLID STATE USING A MIXTURE OF GASES CONTAINING NATURAL GAS, HYDROGEN AND NITROGEN	C.N.Harman Facor Alloys Limited, Shreeramnagar, India
Production Technologies and Operation: Presmelting Operations	PROCESS FOR EFFECTIVE UTILIZATION OF LOW GRADE CHROMITE OVERBURDEN	Gajanan Kapure*, Chenna B. Rao, Vilas Tathavadkar, K. S. Raju Research and Development Division, Tata Steel Limited, Jamshedpur, India

POSTER PRESENTATIONS

For poster presentations, there will be a special poster session on Tuesday afternoon, June 8.

Commercial aspects: Applications and Uses	FERRO-ALLOY DESIGN, FERRO-ALLOY SELECTION AND UTILISATION OPTIMISATION WITH PARTICULAR FOCUS ON STAINLESS STEEL MAKING MATERIALS	C-J Rick, Uvån Hagfors Teknologi AB, Täby;,Sweden
Commercial aspects: Applications and Uses	FERROALLOYS FOR CLEAN STEELS PRODUCTIONS AND QUALITY SPECIFICATIONS	Grigorovich K.V., Shibaev S.S., I.V. Kostenko I.V. Baikov Institut of metallurgy and Material Science RAS, Moscow, Russia
Energy and environment: Energy	A MODEL FOR TEMPERATURE MEASUREMENT ERRORS IN OFF-GAS CHANNELS	Bård Solvang, SINTEF Materials and Chemistry, Trondheim, Norway; Erling Næss, The Norwegian University of Science and Technology, Trondheim, Norway
Engineering aspects and concepts: Furnace Design and Equipment	COMPARISON OF AC- AND DC – SMELTER TECHNOLOGY FOR THE PRODUCTION OF FERRO ALLOY	Thomas Pasch, Jürgen Kunze, Harmen Oterdoom and Dr. Rolf Degel* SMS Siemag AG, Düsseldorf, Germany
Engineering aspects and concepts: Lining	CAMPAIGN EXTENSIONS FOR FERROALLOY FURNACES WITH IMPROVED TAPHOLE REPAIR SYSTEM	C. Coetzee, P.L Duncanson, P. Sylven GrafTech International Ltd

Fundamentals, Theory: Chromium Fundamentals, Development	THERMODYNAMIC ANALYSIS OF CHROME REDUCTION WITH ALUMINUM AND SILICON	A. Akuov, M. Tolymbekov, Chemical-Metallurgical Institute, Kazakhstan, A. Yesenzhulov, Aksu Ferroalloys Plant
Fundamentals, Theory: Chromium Fundamentals, Development	PETROGRAPHIC ANALYSIS OF LOW-CARBON FERROCHROME SLAGS	A. Konarbaeva, M. Tolymbekov, A. Akuov, Chemical-Metallurgical Institute, Kazakhstan
Fundamentals, Theory: Manganese Fundamentals, Development	THERMODYNAMICAL ASPECTS OF DECARBURIZATION OF MANGANESE MELTS	V.Ya.Dashevskiy , and A.G.Kanevskiy , Baikov Institute of Metallurgy and Material Science of Russian Academy of Sciences
Fundamentals, Theory: Manganese Fundamentals, Development	INFLUENCE OF BORON OXIDE ON VISCOSITY AND CONDUCTIVITY OF CAO-SIO2-AL2O3-MGO-MNO SLAGS	O. Sariev, M. Tolymbekov, A. Akberdin, A. Kim, Chemical-Metallurgical Institute, Kazakhstan
Fundamentals, Theory: Manganese Fundamentals, Development	ELECTRICAL CONDUCTIVITY AND VISCOSITY OF MNO-SIO2-CAO SLAGS WITH ADDITIVES: ANALYSIS AND PREDICTION WITH MULTI-OBJECTIVE OPTIMISATION TOOL	M. M. Gasik, TKK - Helsinki University of Technology, FIN; M. I. Gasik, National Metallurgical Academy of Ukraine, UKR
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	SMALL SCALE LABORATORY EXPERIMENTS SIMULATING AN INDUSTRIAL Si FURNACE	Merete Tangstad [1], Michal Ksiazek[1], Vegar Andersen[1], Eli Ringdalen[2]) 1. NTNU, Trondheim, Norway 2. SINTEF, Trondheim, Norway
Fundamentals, Theory: Other Ferro Alloys: Fundamentals, Development	PHASE DIAGRAM OF Ti-Fe-Al SYSTEM	Ye. Zhumagaliev, S. Baisanov, A. Chekimbaev, N. Nurgali, Chemical-Metallurgical Institute, Kazakhstan
Production Technologies and Operation: Chromium Alloys Production and Operation	SIMULATION OF THE PRODUCTION OF FERRO-CHROMIUM IN SUBMERGED-ARC FURNACE	S. Rangnathan*, K. M. Godiwalla*, N. V. Satyanarayana# , Parvesh Kumar*, Vardhan Rao@, A.K.Roy@, B.Srikant@ • - National Metallurgical Laboratory, Council of Scientific and Industrial Research, Jamshepdur, India # - Indian Institute of Chemical Technology, Hyderabad, India @ Navabahrat Ventures Ltd., Orissa, India
Production Technologies and Operation: Chromium Alloys Production and Operation	ZIMBABWE ALLOYS FERRO CHROMIUM PRODUCTION: FROM CRADLE TO GRAVE SUSTAINABLY	J. Chirasha and d N.R. Shoko Zimbabwe Alloys International, - Gweru, Zimbabwe.
Production Technologies and Operation: Chromium Alloys Production and Operation	RESEARCH OF BRIQUETTING PROCESS OF FINE CHROMIC ORES	K.L. Kossyrev, A.V. Pavlov, V.A. Grygorian, Y.V. Zavalishina and O.V.Chadaeva Moscow Steel and Alloys Institute
Production Technologies and Operation: Chromium Alloys Production and Operation	CONTRIBUTION MAXIMIZATION MODEL -CASE OF A FERRO ALLOYS MANUFACTURING FIRM	Dr.Rajib Kumar Mohapatra, Director, International School of Business Management, Bhubaneswar, Orissa,India
Production Technologies and Operation: Ferro Nickel Production and Operation	NEW DEVELOPMENTS IN FURNACE POWER STABILIZATION WITH SPLC	Mohammad Sedighy, Tom Ma, Hatch Ltd, Missisauga, ON, Canada
Production Technologies and Operation: Ferro Nickel Production and Operation	THERMOGRAPHIC ANALYSIS OF AGGLOMERATED NICKEL ORE	B. Kelamanov, K. Kaskin, M. Tolymbekov, A. Baisanov, Chemical-Metallurgical Institute, Kazakhstan
Production Technologies and Operation: Manganese Alloys Production and Operation	FURNACE MANAGEMENT IN ERAMET MANGANESE DURING THE 2009 CRISIS	Gunnar Folmo[1], Claude Perdon[1], Thomas Hitier[2], Rodney Ishak[3], François Wasser[4], Dag Haaland[5] 1 Eramet Comilog Manganese, Industrial Management. Trappes cedex, France 2 Comilog Dunkerque, Grave
Production Technologies and Operation: Presmelting Operations	COAL BASED DIRECT REDUCTION OF PREOXIDIZED CHROMITE ORE AT HIGH TEMPERATURE	Gajanan Kapure*, Vilas Tathavadkar, Chenna B. Rao, S. Mohan Rao, K. S. Raju Research and Development Division, Tata Steel Limited, Jamshedpur, India