

Abrasion 2011 - Final program

Sunday, 21st August 2011

Hotel Mercure (Liège)

18h00-22h00: Registration of participants + Walking Dinner (Welcome Reception)

Monday, 22th August 2011

Salle Académique (Université de Liège)

08h30 – 08h45: Opening and Welcome Address

08h45 – 09h30: Keynote lecture

HSS rolls: from research investigations to the mill (K01)

Massimo PELLIZZARI¹ and Alberto TREMEA²

¹Department of Materials Engineering and Industrial Technologies, University of Trento – Italy

²INNSE Cilindri, Brescia – Italy

09h30 – 10h00:

Transformation characteristics of the hardfacing deposits by hard particles core sheathed electrode (T04)

Setsuo ASO¹, Hiroyuki IKE², Nobuo KONISHI³, Suken HOU¹, Ken-ichi OHGUCI¹ and Yoshinari KOMATSU¹

¹Department of Materials Science and Engineering, Graduate School of Engineering and Resource Science, Akita University – Japan

²Iwate Industrial Research Institute, Iwate – Japan

³ Konishi Foundry Co., Ltd, Iwate – Japan

10h00 – 10h30:

Behavior of Hardness and Retained Austenite during Subcritical Heat Treatment of High Chromium Cast Irons with Molybdenum (T07)

Sudsakorn INTHIDECH¹, Prasonk SRICHAROENCHAI² and Yasuhiro MATSUBARA³

¹Department of Manufacturing Engineering, Faculty of Engineering, Mahasarakham University – Thailand

²Department of Metallurgical Engineering, Faculty of Engineering, Chulalongkorn University – Thailand

³Department of Materials Science and Engineering, Kurume National College of Technology – Japan

10h30 – 11h00: Coffee break

11h00 – 11h30:

Wear Resistance Characteristics of High-Cr White Cast Irons of Various Alloying Compositions (T02)

Yung-Ning PAN¹, Sheng-Hau WANG¹, Kaoru YAMAOTO², Nobuya SASAGURI² and Yasuhiro MATSUBARA²

¹Department of Mechanical Engineering, National Taiwan University – Taiwan

²Department of Materials Science and Engineering, Kurume National College of Technology, Kurume – Japan

11h30 – 12h00:

Influence of High Temperature Heat Treatment on in situ Transformation of Mo-rich Eutectic Carbides in HSS and Semi-HSS Grades (T16)

Jérôme Tchoufang TCHUINDJANG¹, Mario SINNAEVE², and Jacqueline LECOMTE-BECKERS¹

¹Metallurgy & Materials Science Unit, Aerospace & Mechanics Dpt., University of Liege – Belgium

²Marichal Kétin – Belgium

12h00 – 12h30:

Influence of Cobalt Content on Heat Treatment Behavior and Abrasive Wear Characteristics of Multi-Component White Cast Iron (T05)

Nobuya SASAGURI¹, Yuzo YOKOMIZO², Kaoru YAMAMOTO¹ and Yasuhiro MATSUBARA³

¹Department of Materials Science and Engineering, Kurume National College of Technology – Japan

²KARAWA Steel Works, Karawa – Japan

³Fukuoka Jo Gakuin, Fukuoka – Japan

12h30 – 14h00: Lunch

14h00 – 14h45: Keynote lecture

Tribology, a loss leader for the Choice of wear-resistant Roll Materials (K03)

Adrien MAGNEE¹ and Jean-Claude HERMAN²

¹Physical Metallurgy, University of Liege – Belgium

²C.R.M Group, Liege - Belgium

14h45 – 15h15:

Development of New Type Indefinite Chilled Double Poured Cast Iron (ICDP) Work Roll with Higher Wear Resistance (T10)

Hajime MORIKAWA and Yutaka TSUJIMOTO

Roll Section, Hirakata Plant, Kubota Corp., Ltd., Hirakata-shi – Japan

15h15 – 15h45: Coffee break

15h45 – 16h15:

Erosion characteristics of high chromium cast iron at high temperature of 1173K (T12)

Kazumichi SHIMIZU¹, Xinba YAER¹, Hiroya HARA¹ and Masahito TANAKA²

¹Muroran Institute of Technology, Muroran city, Hokkaido – Japan

²Sankyo Alloy Casting Co., Ltd. Tsukuda, Osaka – Japan

16h15 – 16h45:

Effect of Ti, V and Nb carbide on the properties of ICDP cast iron finishing rolls (T17)

Fabienne DELAUNOIS¹, Mario SINNAEVE² and Véronique VITRY¹

¹Service de Métallurgie, Faculté Polytechnique, Université de Mons – Belgium

²Marichal Kétin – Belgium

16h45 – 17h15:

Executive Committee Meeting

Tuesday, 23th August 2011

Salle Académique (Université de Liège)

08h45 – 09h30: Keynote lecture

Overview: High speed steels for hot rolling mill rolls (K02)

Mario BOCCALINI Jr.

Institute for Technological Research (IPT) – Brasil

09h30 – 10h00:

Abrasive Wear Resistance of Hypoeutectic 26 wt% Cr Cast Irons with Molybdenum (T06)

Attasit CHOOPRAJONG¹, Sudsakorn INTHIDECH², Prasonk SRICHAROENCHAI¹, Kaoru YAMAMOTO³, Nobuya SASAGURI³ and Yasuhiro MATSUBARA³

¹Department of Metallurgical Engineering, Faculty of Engineering, Chulalongkorn University, Bangkok – Thailand

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³Board of Trustees, Fukuoka Jo Gakuin, Fukuoka – Japan

10h00 – 10h30:

Work Roll Surface Degradation in Hot Rolling: on site and laboratory evaluation methods (T18)

S. FLAMENT¹, G. WALMAG¹, J. MALBRANCKE¹, G. MOREAS¹ and Mario SINNAEVE²

¹CRM, Liège – Belgium

²Marichal Kéfin – Belgium

10h30 – 11h00: Coffee break

11h00 – 11h30:

New wear resistant cast alloys for use at elevated temperatures (T01)

Gerhard GEVELMANN and Werner THEISEN

Chair of Materials Technology Ruhr, University of Bochum – Germany

11h30 – 12h00:

Effects of Alloying Element on Compressive and Wear Properties of Multi-component White Cast irons for Steel Rolling Mill Rolls (T11)

Mitsuo HASHIMOTO

Roll Research and Technology Co., Ltd. Kitakyushu-city – Japan

12h00 – 12h30:

Damage Mechanics on a Working Roll used on a Roughing Stand of Hot Strip Mill : Tribological Approach (T15)

C. VERGNE¹, O. JOOS², C. GASPARD³, J. TINOCO⁴, M. MOUJIB¹, C. BOHER² and F. REZAI-ARIA²

¹ÅKERS Belgium

²Université de Toulouse – France

³ÅKERS AB – Belgium

⁴ÅKERS Sweden AB

⁵ÅKERS France Sedan

12h30 – 14h00: Lunch

14h00 – 14h30:

Influence of Alloying Elements on High Temperature Hardness of M_7C_3 Carbide in High Chromium White Iron (T08)

Kaoru YAMAMOTO¹, Nobuya SASAGURI¹ and Yasuhiro MATSUBARA²

¹Department of Materials Science and Engineering, Kurume National College of Technology – Japan

²Fukuoka Jo Gakuin, Fukuoka – Japan

14h30 – 15h00:

Indefinite Chill Roll Material – History and Development (T19)

Tommy NYLEN

EISENWERK SULZAU-WERFEN, R. & E. Weinberger AG - Austria

15h00 – 15h30: Coffee break

15h30 – 16h00:

Microstructure Characterization Trial of High Vanadium Castings for Crushing Machine Parts of Rice Husk (T09)

Takateru UMEDA and Hirunlabh CHATCHAI

Sahaviriya Steel Industries PCL, Bangsaphan, Prachupkirikhan – Thailand

16h00 – 16h30:

Effect of erodent properties on erosive wear behaviour of high chromium cast irons (T14)

Kenta KUSUMOTO¹, Kazumichi SHIMIZU¹, Xinba YAER¹, Hiroya HARA¹ and Masahito TANAKA²

¹Muroran Institute of Technology, Muroran city, Hokkaido – Japan

²Sankyo Alloy Casting Co., Ltd. Tsukuda, Osaka – Japan

16h30 – 16h45: Closing Address

19h00 – 23h00: Conference Dinner

Wednesday, 24th August 2011

09h00 – 11h00: Post Conference Plant tour

Technical visit of the [CRM Group](#) including Lunch