

**TWELFTH INTERNATIONAL
CONFERENCE ON
RECENT ADVANCES IN
CONCRETE TECHNOLOGY AND
SUSTAINABILITY ISSUES**

FINAL PROGRAM

**October 30-November 1, 2012
PRAGUE MARRIOTT HOTEL
PRAGUE, CZECH REPUBLIC**

Website :<http://www.intconference.org>

Issued September 2012

**TWELFTH INTERNATIONAL
CONFERENCE ON
RECENT ADVANCES IN
CONCRETE TECHNOLOGY AND
SUSTAINABILITY ISSUES**

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**October 30-November 1, 2012
PRAGUE MARRIOTT HOTEL
PRAGUE, CZECH REPUBLIC**

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RECEPTION

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Monday, October 29, 2012

18:30 – 20:00

DINNER IN HONOUR OF

PROF. YVES HOUST (Switzerland)

Tuesday, October 30, 2012

19:00 – 21:00

Tickets: €20.00 Euros

RECEPTION AND AWARDS BANQUET

Wednesday, October 31, 2012

19:30 – 22:00

The Awards banquet will be followed by a
cultural event.

Tickets: €20.00 Euros

The Awardees are:

Mohammed Basheer, Northern Ireland

Takafumi Noguchi, Japan

Ming Hong Zhang, Singapore

Thursday, November 1, 2012

LUNCH IN HONOUR OF

Nicholas J. Carino , U.S.A.

Per Jahren, Norway

Wilbert Langley, Canada

John Wolsiefer Sr., U.S.A.

Complimentary for Conference Delegates

TUESDAY, OCTOBER 30, 2012
OPENING CEREMONY
08:55 – 09:00

INTRODUCTORY REMARKS
V.M. Malhotra, Chairperson
Committee for the Organization of International
Conferences

OPENING SESSION
09:00 - 10:30

Chairperson: Terence C. Holland
Consultant
Auburn, OH, USA

Proceedings – 27

- **Self-Compacting High-Performance Concretes**
Mario Collepari and Roberto Troli, Enco Ponzano
Veneto, ITALY
Stefano Maringoni, Tecnochem, Barzana, ITALY

Proceedings – 11

- **Advances in Geological CO₂ Sequestration and Co-Sequestration**
Circe A. Verba, National Energy Technology Laboratory
and Oregon State University, U.S.A.
William K. O'Connor, U.S. DOE National Energy
Technology Laboratory, U.S.A.
Jason H. Ideker, Oregon State University, U.S.A.

Supplementary – 1

- **Consolidation of Test Samples Made with Fiber-Reinforced Superworkable Concrete**
F. Kassimi, O. Bonneau and K.H. Khayat, Université de
Sherbrooke, CANADA
- **Some of the World's Major Construction Projects incorporating Supplementary Cementing Materials**
John Wolsiefer Sr., Norchem Concrete Products, Fort
Pierce, Florida, U.S.A.

COFFEE BREAK
10:30 - 11:00

TUESDAY, OCTOBER 30, 2012

SESSION 2

11:00 - 12:30

Chairperson: Wilbert (Wib) Langley

W.S. Langley Concrete & Materials Technology Inc.
Sackville, NS, CANADA

- **Exponential Growth in Cement Production and its Impact on Concrete Technology**
P. K. Mehta, University of California, Berkely, U.S.A.

Supplementary – 13

- **Physico-Chemical Properties, Porosity and Microstructure of Sustainable Concretes**
Susana P. Arredondo-Rea, Ramón Corral-Higuera and Jorge L. Almaral-Sánchez, Universidad Autónoma de Sinaloa, MEXICO
José M. Gómez-Soberón and A. Daniel Portillo-Pérez, Universidad Politécnica de Cataluña, SPAIN

Proceedings – 35

- **Dynamic Performance of Eco-friendly Prestressed Concrete Sleeper**
Taehoon Koh, Younghoon Bae, Seonkeun Hwang and Myung Sagong, Korea Railroad Research Institute (KRRRI), KOREA

Proceedings – 277

- **Pozzolanic Activity of Calcined Clays**
Simone E. Schulze and Jörg Rickert, Verein Deutscher Zementwerke e.V., GERMANY

Supplementary – 683

- **Interfacial Transition Zone in Alkali-Activated Slag Concrete**
R. San Nicolas and J.L. Provis, University of Melbourne, AUSTRALIA

LUNCH

(Not Provided)

12:30 - 14:00

TUESDAY, OCTOBER 30, 2012

SESSION 3

14:00 - 15:30

Chairperson: L. Coppola

University of Bergamo

ITALY

Supplementary – 27

- **Air Void Structure of Produced Frost Resistant Concrete – An on Site Study**
Espen Rudberg, Øystein Mortensvik and Dag Vollset,
Rescon Mapei AS, NORWAY

Supplementary – 47

- **Rapid Chloride Permeability Testing: is it Appropriate for Concrete Durability Quality Control Testing?**
Karl Heath, Murray & Roberts Marine, SOUTH AFRICA
Mark Alexander, University of Cape Town, SOUTH AFRICA

Proceedings – 43

- **Parameters Influencing the Performance of Shrinkage-Compensating Concrete**
Cataldo Matteo Corcella, Cristiano Cereda and Salvatore Tavano, Addiment Italia Srl, ITALY
Fulvio Canonico and Daniela Gastaldi, Buzzi Unicem S.p.A., ITALY

Supplementary – 633

- **Ultrasonic Wave Reflection Measurements of Cement Pastes at Early Ages**
G. Trtnik, Building Materials Institute, SLOVENIA
M.I. Valic, University of Ljubljana, SLOVENIA
F. Kavcic, Building Materials Institute, SLOVENIA
G. Turk, University of Ljubljana, SLOVENIA

Supplementary – 815

- **The Effect of Aggregate Size on Energy Dissipation Subjected to Static Cyclic Loading**
Sanusi A. ELazhari, Mahmud M. Akkari and Mohamed F.Suleiman, University of AL-Fateh, LIBYA

COFFEE BREAK

15:30 - 16:00

TUESDAY, OCTOBER 30, 2012

SESSION 4

16:00 - 18:00

Chairperson: Vlastimil Bilek

ZPSV a.s., Brno

CZECH REPUBLIC

Proceedings – 59

- **Bond Behaviour between NSM FRP Rods and Concrete: Experimental and Numerical Investigation**
Aniello Palmieri, Stijn Matthys and Luc Taerwe, Ghent University, BELGIUM

Supplementary – 65

- **Design and Analysis of Fiber Reinforced Concrete Material Benefits for Projects**
Clifford N. MacDonald, FORTA Corporation, U.S.A.

Proceedings – 75

- **Construction of Structures with Synthetic Structural Fiber Reinforced Concrete for Sustainability and Durability**
V. Ramakrishnan, South Dakota School of Mines and Technology, U.S.A.

Supplementary – 79

- **Early-Age Behavior of Wollastonite Micro-Fiber UHPC**
A.M. Soliman and M.L. Nehdi, The University of Western Ontario, CANADA

Supplementary – 765

- **Compressive Strengths of Concretes Formulated with Algerians Local Materials**
S. M. A. Boukli Hacene and F. Ghomari, Abou Bekr Belkaid University, ALGERIA
A. Khelidj, University of Nantes, FRANCE

- **Physical Chemistry and Rheology of Alkaline Solutions for Geopolymer Pastes Formulations**
Arnaud Bourlon, ESPCI ParisTech and IFP Energies Nouvelles, FRANCE
Jean-Baptiste d’Espinose de Lacaillerie, ESPCI ParisTech, FRANCE
Eric Lecollier and David Pasquier, IFP Energies Nouvelles, FRANCE

- **Early Age and Durability Properties of Dredged Marine Sand Mortars**
Amor Ben Fraj, Ecomaterials Laboratory of CETE IdF, FRANCE
Mohamed Miraoui, Nantes University, FRANCE
Frédéric Boinski, Ecomaterials Laboratory of CETE IdF FRANCE
Pierre Mounanga, Nantes University, FRANCE

WEDNESDAY, OCTOBER 31, 2012

SESSION 5

(Parallel with Session 6)

9:00 - 10:30

Chairperson: Mario Collepari

Enco, Ponzano Veneto

ITALY

Proceedings – 453

- **SCC with Ground Bottom Ash from Municipal Solid Wastes Incinerators**

Silvia Collepari and Mario Collepari, Enco, Ponzano Veneto, ITALY

Giacomo Iannis, Tecnochem, ITALY

Alessandro Quadrio Curzio, Petracem, ITALY

Supplementary – 91

- **Adding Fillers to Reduce Embodied Carbon and Embodied Energy of Concrete**

J.J. Chen, The University of Hong Kong, CHINA

W.W.S. Fung, Sun Hung Kai Properties Ltd, CHINA

P.L. Ng, Dragages Hong Kong Ltd, CHINA

A.K.H. Kwan, The University of Hong Kong, CHINA

Proceedings – 425

- **Use of Radioactive Reinforcement in the Construction of Concrete Bridges**

Peter Paulík, Michal Pánik and Vladimír Nečas, Slovak University of Technology, SLOVAKIA

Supplementary – 495

- **Optimal Dosages of Silica Fume and Superplasticizer for High Strength Concrete**

Daniel Duque, Cementos Argos, COLOMBIA

Ana B. Acevedo, EAFIT University, COLOMBIA

Carlos A. Orozco, Cementos Argos, COLOMBIA

Supplementary – 645

- **Case History of Samsun Port Project Using Synthetic Fibre-Reinforced Concrete**

Selçuk Mert, Burak Erdal and Serhat Sarıkaya, FORTA TURKEY

Clifford N. MacDonald, FORTA, U.S.A.

COFFEE BREAK

10:30 - 11:00

WEDNESDAY, OCTOBER 31, 2012

SESSION 6

(Parallel with Session 5)

9:00 - 10:30

Chairperson: Takafumi Noguchi

The University of Tokyo, Tokyo

JAPAN

Proceedings – 105

- **Design of Applicable Constructed Facilities to cope with Global Warming**

Theodore W. Bremner, University of New Brunswick,
CANADA

Supplementary – 109

- **Investigation of Effectiveness of Concrete Nano and Micro Filler Agglomerate Dispersion Enforced by Cavitation**

A. Korjakins, G. Shakhmenko, J. Justs and V. Mironovs,
Riga Technical University, LATVIA

Supplementary – 123

- **Feasibility of Photocatalytic Concrete - Economic Perspective**

D. K. Panesar, University of Toronto, CANADA
C. J. Churchill, McMaster University, CANADA
M. Dolatabadi, University of Toronto, CANADA

Supplementary – 779

- **Evaluation of Models for Service-Life Prediction of RC Structures in Severe Environmental Conditions**

Ali Akbar Ramezaniyanpour, Ehsan Jahangiri, Babak
Ahmadi and Faramaz Moodi, Amirkabir University of
Technology, IRAN

Supplementary – 799

- **Experimental Study on the Electrical Properties of Cement Composites with Carbon Nanotubes for Monitoring the Stress Conditions of Reinforced Concrete Structures**

L. Coppola and A. Buoso, University of Bergamo,
ITALY

F. Corazza, CTG-Italcementi Group S.p.A, ITALY

COFFEE BREAK

10:30 - 11:00

WEDNESDAY, OCTOBER 31, 2012

SESSION 7

(Parallel with Session 8)

11:00 - 12:30

Chairperson: Silvia Collepardi

Enco, Ponzano Veneto

ITALY

Proceedings – 113

- **Aggregates from Residual Concrete**

Giorgio Ferrari, Alberto Brocchi and Fiorenza Cella,
Mapei S.p.A., ITALY

Maria Chiara Dalconi, University of Padua, ITALY

Federico Longhi, Mapei S.p.A., ITALY

Supplementary – 149

- **The Impact of Granulated Cork on the Properties of Concrete-Cork Composites Containing Slag**

B. Shindman and D. K. Panesar, University of Toronto,
CANADA

Supplementary – 729

- **Concrete Recycling in Consideration with a Risk of Deleterious Impurities**

Takafumi Noguchi, The University of Tokyo, JAPAN

Wonjun Park, Hanyang University, KOREA

Proceedings – 413

- **Efficiency of Calcined Clay in Cementitious Systems**

Nancy Beuntner, Klaus Rapp, Karl-Christan Thienel,
University of the Federal Armed Forces, GERMANY

Supplementary – 135

- **Partial Replacement of Natural Aggregates with Recycled Concrete**

Natalie A. Lloyd, Vo Ba Vihn and Guo Wen Guan, Curtin
University, AUSTRALIA

LUNCH

(Not Provided)

12:30 - 13:30

WEDNESDAY, OCTOBER 31, 2012

SESSION 8

(Parallel with Session 7)

11:00 - 12:30

Chairperson: V. Ramakrishnan

South Dakota School of Mines and Technology
Rapid City, U.S.A.

Supplementary – 159

- **Advantages of Fiber Concrete when Used as Structural Material Instead of Ordinary Concrete**
Jan Vodička, Hana Hanzlová, Jiří Krátký and Jitka Vašková, Czech Technical University in Prague, CZECH REPUBLIC

Supplementary – 169

- **Toughness and Flexural Strength Behavior of Hybrid Fiber Reinforced Concretes**
Ali.A.Ramezaniour, P.Rashid Dadash and M.Peydaiesh, Amirkabir University, IRAN

Proceedings – 129

- **Effect of Steel Fibre Tensile Strength on Mechanical Properties of Steel Fibre Reinforced Concretes**
Fuat Köksal, Bozok University, TURKEY
Yuşa Şahin, Istanbul Technical University, TURKEY
Murat Şahin, Bozok University, TURKEY

Proceedings – 201

- **Strengthening of Reinforced Concrete Members by Means of High Performance Fiber Reinforced Concrete**
Stefano Maringoni, Tecnochem Italiana S.p.A., ITALY
Alberto Meda, University of Rome, ITALY
Serena Mostosi and Paolo Riva, University of Bergamo, ITALY

Supplementary – 659

- **Finite Element Analysis of RC Continuous Beams Strengthened by External Layers**
Khaled M. Heiza, Menoufiya University, EGYPT

LUNCH

(Not Provided)

12:30 - 13:30

WEDNESDAY, OCTOBER 31, 2012

SESSION 9

(Parallel with Session 10)

13:30 - 15:00

Chairperson: Min Hong Zhang

National University Of Singapore

SINGAPORE

Proceedings – 159

- **Reliability-Based Life Cycle Assessment of Green Concrete Structures**

Tonatiuh Rodriguez-Nikl, California State University, Los Angeles, U.S.A.

Joshua W. Christiansen, Smith Monroe Gray Engineers, U.S.A.

Kelli Walters, Oregon State University, U.S.A.

Proceedings – 173

- **Solutions to Support More Sustainable Construction Practices**

Bruce J. Christensen and Christian Huebsch, BASF Construction Chemicals, GERMANY

Proceedings – 357

- **Calcined Marl as a Pozzolan for Sustainable Development of the Cement and Concrete Industry**

Tobias Danner, NTNU, NORWAY

Tone Østnor, SINTEF, NORWAY

Harald Justnes, NTNU, NORWAY

Supplementary – 709

- **Effect of Wastepaper Sludge Ash on Cement Blends Properties**

T. Davidenko, A. Xie, N. Mikanovic, and A. Tagnit-Hamou, Université de Sherbrooke, CANADA

Supplementary – 281

- **High Durable Self Compacted Concrete**

Mokhtar Moamer Aburawi, Almerghab University, LIBIYA

Halema M.A. Kshem, Academy of Graduate Studies, LIBIYA

COFFEE BREAK

15:00 - 15:30

WEDNESDAY, OCTOBER 31, 2012

SESSION 10

(Parallel with Session 9)

13:30 - 15:00

Chairperson: Clifford N. MacDonald

FORTA

U.S.A.

Supplementary – 199

- **Mechanical Characterization of Cement Composites Reinforced with Fiberglass, Carbon Nanotubes or Glass Reinforced Plastic (GRP) at High Strain Rates**

L. Coppola, University of Bergamo, ITALY

E. Cadoni, SUPSI, SWITZERLAND

A. Buoso, University of Bergamo, ITALY

D. Forni, SUPSI, SWITZERLAND

Proceedings – 185

- **Conclusions from Blast Resistance Field Tests of FRC and RC Specimens**

Marek Foglar, Martin Kovar and Alena Kohoutkova,

Czech Technical University in Prague, CZECH

REPUBLIC

Supplementary – 225

- **Investigation on Random Distribution of Fibres in High Performance Self-Compacting Concrete**

Tomasz Ponikiewski and Jacek Gołaszewski, The Silesian University of Technology, POLAND

Supplementary – 547

- **Development of Concretes with Ternary Binders**

Vlastimil Bilek, ZPSV a.s., CZECH REPUBLIC

Supplementary – 435

- **Experimental Study on Effect of Polyester Fibres on Engineering and Durability Properties of High Volume Fly Ash Concrete**

Indrajit Patel, B & B Institute of Technology, INDIA

C. D. Modhera, S V National Institute of Technology,

INDIA

COFFEE BREAK

15:00 - 15:30

WEDNESDAY, OCTOBER 31, 2012

SESSION 11

(Parallel with Session 12)

15:30 - 17:00

Chairperson: Per Jahren

P.J.Consult AS

Asker, NORWAY

Proceedings – 215

- **Characterization of Lightweight Mortars Containing Wood Waste**

Valeria Corinaldesi and Giacomo Moriconi, Università Politecnica delle Marche, ITALY

Proceedings – 229

- **Strength and Durability Parameters of an Environmentally Friendly Concrete**

Susana P. Arredondo-Rea, Ramón Corral-Higuera and Jorge L. Almaral-Sánchez, Universidad Autónoma de Sinaloa, MEXICO

José M. Gómez-Soberón and A. Daniel Portillo-Pérez, Universidad Politécnica de Cataluña, SPAIN

Supplementary – 243

- **Improving Sustainability of Ultra-High Strength Concrete**

Erin Lyell, Jesus Muro, Craig Newton, Brad Weldon, David Jauregui, and Srinivas Allena, New MEXICO State University, U.S.A.

Supplementary – 253

- **Rheology of Metakaolin based Geopolymer : Mechanisms and Improvement Potentials**

A. Favier and G. Habert, Université Paris-Est, FRANCE

J.B. d'Espinose de Lacaillerie, Ecole Supérieure de Physique et Chimie Industrielles, FRANCE

N. Roussel, Université Paris-Est, FRANCE

Proceedings – 317

- **High Performance and Conventional Concrete Properties Affected by Ashes Obtained From Different Type of Grasses**

D.Bajare, G.Bumanis, G.Shakhmenko, J.Justs, Riga Technical University, LATVIA

WEDNESDAY, OCTOBER 31, 2012

SESSION 12

(Parallel with Session 11)

15:30 - 17:00

Chairperson: Yazbeck Fouad

Readymix Abu Dhabi

Abu Dhabi, U.A.E.

Proceedings – 245

- **The Long-Term Monitoring of Large-Scale Concrete Specimens Containing Lithium Salts to Mitigate Alkali Silica Reaction**

Thanos Drimalas, University of Texas at Austin, U.S.A.

Jason H. Ideker, Oregon State University, U.S.A.

Anthony F. Bentivegna and Kevin J. Folliard, University of Texas at Austin U.S.A.

Beniot Fournier, Université Laval, CANADA

Michael D.A.Thomas, University of New Brunswick, CANADA

Supplementary – 265

- **Early-Age Behavior of Ternary Binders Based on Portland Cement, Blast Furnace Slag and Limestone Filler**

Nourelhouda Khalifa, LASMAP, FRANCE,

Marwen Bouasker, Ecole Polytechnique d'Orléans

Pierre Mounanga, Research Institute on Civil Engineering and Mechanics, FRANCE

Nabil Benkahla, LASMAP, FRANCE

Supplementary – 521

- **A Comparative Evaluation of Metakoalin and Silica Fume to Control Alkali-Silica Reaction in Concrete**

P.-C. Nkinamubanzi and Raymond Chevrier, IRC-NRC, CANADA

Benoit Fournier, Université Laval, CANADA

- **Comparative Field and Laboratory Evaluation of Concrete Incorporating High Volumes of Fly Ash and Reactive Aggregates**

Benoit Fournier, Université Laval, CANADA

Supplementary – 591

- **Mechanical Properties Self Consolidating Mortars (SCM) Containing Nano SiO₂**

Ali Akbar Ramezani pour, Mahdi Mahdikhani and S.Sina Yousefian Moghaddam, Amirkabir University, IRAN

Proceedings – 399

- **Investigation of the Foamed Concrete Properties Containing Nanosilica, as Compared with the Foamed Concrete Containing Microsilica**

Alireza Fiouz, The University of Persian Gulf, IRAN
Sina Saadat, Azad University of Bushehr, IRAN

THURSDAY, NOVEMBER 1, 2012

SESSION 13

(Parallel with Session 14)

9:00 - 10:30

Chairperson: Natalie A. Lloyd

Curtin University
Perth, AUSTRALIA

Supplementary – 293

- **Development of a Test Method for Dynamic Stability of Self-Consolidating Concrete**

Behrouz Esmailkhanian, Dimitri Feys, Masoud Hosseinpoor, Ammar Yahia and Kamal H. Khayat, Université de Sherbrooke, CANADA

Supplementary – 307

- **Effect of Ternary Cementitious Blends on Fresh and Hardened Properties of Concrete-Equivalent Mortar of SCC Consistency**

F. Rouis, N. Mikanovic and K.H. Khayat, Université de Sherbrooke, CANADA

Supplementary – 323

- **Effect of Gamma Radiation and Heat on Properties of Hardening Self-Compacting Mortar**

Bart Craeye, Artesis University College of Antwerp, BELGIUM

Geert De Schutter, Magel Laboratory for Concrete Research, BELGIUM

Maarten De Raemaeker, Dredging International, BELGIUM

Ken Gevers, Artesis University College of Antwerp, BELGIUM

Isabelle Gerardy, Haute Ecole Paul-Henri Spaak, BELGIUM

Supplementary – 337

- **Reducing Viscosity of High-Strength, Self Consolidating Concrete to Decrease Pumping Pressure**

Rami Khatib, Aurélien Pcrez-Schell, Dimitri Feys, Kamal H. Khayat, Université de Sherbrooke, CANADA

- **Effects of Limestone Quarry Dust Content on Rheology and Strength of Self-Compacting Mortar**
B. Benabed, University of Laghouat, ALGERIA
E. Kadri, University of Cergy,FRANCE
L. Azzouz, University of Laghouat, ALGERIA
S. Kenai,University of Blida, ALGERIA
A. S. E. Belaidi, University of Laghouat, ALGERIA

COFFEE BREAK
10:30 - 11:00

THURSDAY, NOVEMBER 1, 2012

SESSION 14

(Parallel with Session 13)

9:00 - 10:30

Chairperson: Kamal H. Khayat

Université de Sherbrooke, QC

CANADA

Supplementary – 351

- **Stochastic Estimation of Corrosion Propagation Time for HPC Mixtures**

Petr Konečný, VSB-Technical University of Ostrava,
CZECH REPUBLIC

Pratanu Ghosh, California State University Fullerton,
U.S.A.

Paul J. Tikalsky, University of Utah, U.S.A.

Supplementary – 369

- **Self-Compacting, High-Performance and Light-Weight Concretes**

Mario Collepardi, Emanuela N. Croce, Jean Jacob

Ogoumah Olagot and Francesca Simonelli,

Enco, Ponzano Veneto, ITALY

Supplementary – 377

- **Development of Shrinkage Limits and Testing Protocols for High Performance Concrete: A Review**

Tengfei Fu, Tyler Deboodt, and Jason H. Ideker, Oregon
State University, U.S.A.

Supplementary – 409

- **Research on Property of Deformation of Filling Layer Concrete Used in High Speed Railway Slab Ballastless Track**

Yanbin Tan, Huajian Li, Yongjiang Xie and Zhonglai Yi,
China Academy of Railway Sciences, CHINA

Supplementary – 397

- **Performance and Cracking Behaviour of Reinforced Beams Made of Self- Compacting Concrete with High Strength**

H.R. Ebrahimi and M.H.A.Beygi, Mazandaran

University, IRAN

COFFEE BREAK

10:30 - 11:00

THURSDAY, NOVEMBER 1, 2012

SESSION 15

(Parallel with Session 16)

11:00 - 12:30

Chairperson: A. A. Ramezaniapour

Amirkabir University

IRAN

- **Long Term Performance of High Volume Fly Ash Concrete**

Wilbert Langley, W.S. Langley Concrete & Materials Technology Inc. Sackville, NS, CANADA

Supplementary – 697

- **Utilization of Concrete Sludge Water: The Effect of Mixing Water's Properties on Mortar Strength Development and Hydration**

Monika Zervaki, National Technical University of Athens, GREECE

Christos Leptokaridis, Titan Cement Company S.A., GREECE

Stamatis Tsimas, National Technical University of Athens, GREECE

Supplementary – 835

- **Corrosion Performance of High Volume Slag Concrete at Different W/C**

Bhavna Tripathi and Sandeep Chaudhary, MNIT Jaipur, INDIA

Supplementary – 421

- **Use of Electric Arc Furnace Slag for the Manufacture of Concrete Paving Blocks**

Antonio Telesca, Milena Marroccoli, Maria Lucia Pace, Claudio Santarsiero and Gian Lorenzo Valenti, Università degli Studi della Basilicata, ITALY

- **Use of Opuntia-Cactus Mucilage to Improve Transport Properties of SCC**

A. Durán-Herrera, R. De-León and P. Valdez Universidad Autónoma de Nuevo León, MÉXICO

LUNCH

(Provided)

12:30 - 14:00

THURSDAY, NOVEMBER 1, 2012

SESSION 16

(Parallel with Session 15)

11:00 - 12:30

Chairperson: Konstantin Sobolev

University of Wisconsin-Milwaukee

U.S.A.

Supplementary – 455

- **The Use of Nanoparticle Admixtures to Improve the Performance of Concrete**
Konstantin Sobolev, University of Wisconsin-Milwaukee, U.S.A.
Florence Sanchez, Vanderbilt University, U.S.A.
Ismael Flores, University of Wisconsin-Milwaukee, U.S.A.

Supplementary – 471

- **Performance of Self-Compacting Concrete Incorporating Marble Powder Waste**
Akram Salah Eddine Belaïdi, University of Laghouat, ALGERIA
Said Kenai, University of Blida, ALGERIA
El-Hadj Kadri, University of Cergy-Pontoise, FRANCE
Lakhdar Azzouz, University of Laghouat, ALGERIA
Benchaâ Benabed, University of Laghouat, ALGERIA

Proceedings – 369

- **Comparison of Statistical Mix-Design Proportions of High Strength Self-Compacting Concrete**
Ozlem Akalin, Plustechno, Istanbul, TURKEY
Bahar Sennaroglu, Marmara University, Istanbul, TURKEY

Supplementary – 573

- **Influence of Fillers and Supplementary Cementitious Materials on the Stress-Strain Behaviour of SCC**
Pieter Desnerck and Geert De Schutter, Ghent University, BELGIUM
Kamal H. Khayat, Université de Sherbrooke, CANADA
Luc Taerwe, Ghent University, BELGIUM

Supplementary – 485

- **High Strength Concrete- Efficiency Evaluation of Different Technical Measures**
Bastian Bicher, Sika Services AG, GERMANY

LUNCH

(Provided)

12:30 - 14:00

THURSDAY, NOVEMBER 1, 2012

SESSION 17

(Parallel with Session 18)

14:00 - 16:00

Chairperson: P.-C. Nkinamubanzi

IRC-NRC, Ottawa, ON

CANADA

Proceedings – 145

- **Fiber Reinforced High Performance Concrete for Special Applications**

Halina Szklorzova and Radek Holesinsky, Research Institute of Building Materials, CZECH REPUBLIC
Josef Kratky, Jan Krestan and Stanislav Military Technical Institute of Protection in Brno, CZECH REPUBLIC

Lenka Smetanova, Research Institute of Building Materials, CZECH REPUBLIC

Proceedings – 389

- **Ion Filtration Effect of Superabsorbent Polymers for Internal Curing**

W. Siriwatwechakul, Sirindhorn International Institute of Technology, THAILAND

J. Siramanont and W. Vichit-Vadakan, Siam Research and Innovation, THAILAND

Supplementary – 603

- **Geopolymer Concrete with Recycled Concrete Aggregate**

Benjamin Galvin and Natalie Lloyd, Curtin University, AUSTRALIA

Supplementary – 613

- **The Role of Calcium Sulfoaluminate in Concrete Sustainability**

Eric Bescher, University of California, Los Angeles, U.S.A.

Jake Stremfel, CTS Cement Manufacturing Corporation, U.S.A.

Christopher Ramseyer, University of Oklahoma, Oklahoma, U.S.A.

Edward K. Rice, CTS Cement Manufacturing Corporation, U.S.A.

Supplementary – 563

- **Microwave Thermal Activation Effect on Fly Ash Based Geo-Polymer Concrete**
S. Mandal, Jadavpur University, INDIA
S.Pal, Larsen & Toubro Ltd., INDIA

Supplementary – 183

- **Investigation into the use of Slag as an Alternative to Normal Crushed Aggregate in Concrete Applications**
Arun D. Pofale, Visvesvaraya Regional Engineering College, INDIA
Mohammed Nadeem, Visvesvaraya National Institute of Technology, INDIA

Supplementary – 823

- **Flyash-Concrete Internally Cured with Recycled Porous Ceramic Aggregates**
Mohammed Seddik Meddah, Kingston University, U.K.
Tatsuya Nukushina, Kajima Construction Corporation, JAPAN
Shohei Seiki, Ghugoku Electric Power Co., Inc, JAPAN
Ryoichi Sato, Hiroshima University, JAPAN

COFFEE BREAK
16:00 - 16:30

THURSDAY, NOVEMBER 1, 2012

SESSION 18

(Parallel with Session 17)

14:00 - 16:00

Chairperson: P.A. Muhammede Basheer

Queens University Belfast

Northern Ireland, U.K.

- **NDT Methods Standardized by ASTM and Their Significance**
Nicolas J. Carino, Chargin Falls, OH, U.S.A.
- **Field Experience in the Use of RCPTest and Discussion of ASTM(C 1760) Conductivity Test Method**
Claus Peterson, Germann US, Chicago, U.S.A.
- **Case Histories of In -Place Strength Test Evaluation in Poland**
Andrzej Moczko, POLAND

Supplementary – 747
- **Novel Coatings: Physicochemical Characteristics and Corrosion Evaluation**
Theodosia Zafeiropoulou, Eleni Rakanta and George Batis, National Technical University of Athens, GREECE

Proceedings – 331
- **Mechanical Properties of Ultra High Performance Concrete (UHPC)**
Omar Q. Aziz and Ghafur H. Ahmed, University of Salahaddin Erbil, IRAQ

Proceedings – 263
- **Effect of Cracking on Chloride Diffusion Coefficient of Concrete**
A. Djerbi Tegguer, Institut Français Des Sciences Et Technologies Des Transport, FRANCE
S. Bonnet and A. Khelidj, IUT de Saint-Nazaire, FRANCE

Proceedings – 299
- **Application of Packing Concepts to High Performance Self-Consolidating Mortar (SCM) Systems**
Syed Ali Rizwan, National University of Science and Technology, PAKISTAN
Sajjad Ahmad, Politecnico di Torino, ITALY
Thomas. A. Bier, IKGB, GERMANY

COFFEE BREAK

16:00 - 16:30

THURSDAY, NOVEMBER 1, 2012

AWARDEES SESSION

16:30 – 17:55

Chairperson: Terence C. Holland

Consultant

Auburn, OH, USA

- **Role of In-Situ Testing and Monitoring in the Sustainability of Concrete Infrastructure**
P.A. Muhammede Basheer, Queens University Belfast
Northern Ireland, U.K.
- **Sustainable Recycling of Concrete with Environmental Impact Minimization**
Takafumi Noguchi, University of Tokyo, Tokyo, JAPAN
- **Effect of Nano Silica on Performance of Concrete with High Volumes of Fly Ash or Slag**
Min Hong Zhang, National University Of Singapore,
SINGAPORE

CLOSING REMARKS:

17:55- 18:00

V.M. MALHOTRA, Chairperson
Committee for the Organization of International
Conferences

**WEDNESDAY, OCTOBER 31, 2012
TO
THURSDAY, NOVEMBER 1, 2012**

POSTER PROGRAM

Location: *Hotel Foyer*

**A NUMBER OF POSTERS BY
SEVERAL AUTHORS WILL BE
PRESENTED DURING THE
CONFERENCE**