



 **QUALICOR '14**

XIII WORLD CONGRESS ON CERAMIC
TILE QUALITY

17/18 FEBRUARY 2014



ADVANCE PROGRAMME

MONDAY, FEBRUARY 17

08.15 Shuttle bus service from the hotels to the Congress Venue (Official Chamber of Commerce, Industry and Navigation).

08.30 Handing out of the documentation to the Congress attendees

09.30 **OPENING CEREMONY**

ROOM 1- CONFERENCE

10.00 **“Globalisation scenarios in the world ceramic market”**

Alfonso Panzani

Vice President of Ceram – Unie and Chairman of Ricchetti Group

[Italy](#)

10.00 **POSTERS ROOM Mounting**

11.00 **COFFEE BREAK**

ROOM 1 – PANEL DEBATE

11.30 **The globalisation of ceramic quality**

Chaired by:

Juan José Güemes, Chairman of the International Centre for Entrepreneurial Management at IE Business School. (Spain)

Members:

Jose Luis Lanuza, Managing Director of Keraben ([Spain](#))

Alfonso Panzani, Chairman of Ricchetti Group ([Italy](#))

Bong Kuan Shin, Managing Director of Niro Ceramic Group (Zirconio) Malaysia

Alain Delcourt, Managing Director of Agrob Bruchtal GmbH ([Germany](#))

Discussion

13.30 **“How inkjet printing became possible - A view of the R&D&I chain”**

Javier Cabedo⁽¹⁾, Jesús Zaragoza⁽¹⁾, P. Corma Canós⁽²⁾

⁽¹⁾ Endeka Cerámics, ⁽²⁾ QPT

[Spain](#)

14.00 **LUNCH BREAK**

ROOM 2 - PAPERS BLOCK C

- 11.30 **“Cr(VI) removal from washing water using laminar double hydroxides. Obtainment of ceramic pigment eco-precursors”**

M. Oset, I. Nebot-Díaz

Escola Superior de Ceràmica de L'Alcora, (Castellón)

[Spain](#)

- 12.05 **“Ecodesign certification according to ISO 14006. Application to the die for ceramic tile production”**

Julio Serrano Mira⁽¹⁾, M^a Dolores Bovea Edo⁽¹⁾, Jorge Marcilla Calle⁽¹⁾, Lledó Prades Martell⁽¹⁾, Ramiro Bonaque⁽²⁾, Agustín Poyatos⁽²⁾

⁽¹⁾ Universitat Jaume I, ⁽²⁾ Macer S.L.,

[Spain](#)

- 12.35 **“Selection of additives for reducing the toxicity of quartz in ceramic compositions”**

A. Escrig⁽¹⁾, M. J. Ibáñez⁽¹⁾, E. Monfort⁽¹⁾, G. Bonvicini⁽²⁾, A. Salomoni⁽²⁾, O. Creutzenberg⁽³⁾, C. Ziemann⁽³⁾

⁽¹⁾ Instituto de Tecnología Cerámica–AICE, Universitat Jaume I, ⁽²⁾ Centro Ceramico di Bologna (CCB), Bologna ⁽³⁾ Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM), Hannover

[Spain^{\(1\)}- Italy^{\(2\)} - Germany^{\(3\)}](#)

- 13.05 **“Strategic nanofiltration applications in ceramic and related industry waters”**

R. Moliner-Salvador⁽¹⁾, I. Celades⁽¹⁾, E. Sánchez⁽¹⁾, A. Deratani⁽²⁾, J. Palmeri⁽³⁾

⁽¹⁾ Instituto de Tecnología Cerámica. Asociación de Investigación de las Industrias Cerámicas. Universitat Jaume I. ⁽²⁾ Institut Européen des Membranes, UMR CNRS-ENSCM-Université Montpellier, ⁽³⁾ Laboratoire Charles Coulomb, UMR CNRS-Université Montpellier 2

[Spain^{\(1\)} - France^{\(2,3\)}](#)

- 13.35 **“Strategic environmental communication tools”**

T. Ros-Dosdá⁽¹⁾, I. Celades⁽¹⁾, V. Sanfelix⁽¹⁾, S. Gomar⁽¹⁾, E. Monfort⁽¹⁾

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE) Universitat Jaume I. Castellón.

[Spain](#)

- 14.00 **LUNCH BREAK**

ROOM 3 – PAPERS BLOCK B

- 11.30 **“A model for the analysis of ceramic flooring integrity. Application to the study of cracking in tiles”**

Francisco García Olmos

Technical Architect

[Spain](#)

- 12.05 **“Comparative analysis of the environmental performance of different building envelope solutions, considering the influence of ceramic tiles”**

Patricia Huedo Dorda, David Fernandez-Camuñas Gallego, Ana Sos Castell
Department of Mechanical Engineering and Construction Universitat Jaume I,

Spain

- 12.35 **“The assessment of hollow or drummy tiling”**

Colin Cass. B. Ed., Dip. T. (Technical)
Techtile Consulting Pty. Ltd. Sydney

Australia

- 13.05 **“Thermal and acoustic performances of porcelain stoneware tiles”**

E. Rambaldi, F. Prete, G. Timellini
Centro Ceramico Bologna,

Italy

- 13.35 **“Designing a passivhaus using ceramic materials with high thermal inertia. Computer modelling in transient regime.”**

Carolina Aparicio Fernández, María Pons Morera, Rafael Royo Pastor, Jose Luis Vivancos Bono
Universidad Politécnica de Valencia

España

- 14.00 **LUNCH BREAK**

ROOM 1 – PAPERS BLOCK C

- 15.30 **“Ink technology for digital decoration of ceramic tiles: an overview”**

Michele Dondi, Magda Blosi*, Davide Gardini*, Chiara Zanelli*, Paolo Zannini***

*CNR-ISTEC, Istituto di Scienza e Tecnologia dei Materiali Ceramici, **Department of Chemical and Geological Sciences, University of Modena and Reggio Emilia,

Italy

- 16.05 **“Pigmented aqueous systems for digital decoration”**

Gülşen L. Güngör^{1,2}, Alpagut Kara^{1,2}, Davide Gardini³, Magda Blosi³, Michele Dondi³, Chiara Zanelli³

¹SAM, Ceramic Research Center, Eskişehir, ²Department of Materials Science and Engineering, Anadolu University, Eskişehir, ³CNR-ISTEC, Institute of Science and Technology for Ceramics, Faenza

^{1,2}Turkey - ³Italy

- 16.35 **“Anti-slip ceramic tiles obtained by inkjet printing. The problem of chemical resistance”**

Javier Cabedo^(), Susana Carmena^(*), Manolo Mateu^(*), Carlos Gil^(**), Adriana Belda^(***), Vicente Sanz^(***)*

^(*) Endecka Ceramics, S.A.U., ^(**) Keros Cerámica, S.A., ^(***) Instituto de Tecnología Cerámica

Spain

17.05 **“Everything you always wanted to know about inkjet printing image control...but were afraid to ask”**

J.P. Peset⁽²⁾, J. Plasencia⁽²⁾, J. Clausell⁽¹⁾, L. Ortiz⁽¹⁾

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I. ⁽²⁾ Department of Communication Sciences, Faculty of Human and Social Sciences. Universitat Jaume I.

Spain

17.35 **“An irresistible trend. The application prospect of ink-jet printing technology in China’s ceramic industry”**

Xinliang Lee

Ceramic Town Weekly . Foshan,

China

18.05 **“Colour management software for the ceramic industry”**

Martin, A.⁽¹⁾, Luque, J.⁽¹⁾, Pla, O.⁽¹⁾, Clausell, J.⁽²⁾, Pascual, N.J.⁽²⁾

⁽¹⁾Sistemas de Decoración Digital, S.L. (DIGIT-S) ⁽²⁾ Instituto de Tecnología Cerámica (ITC-AICE)

Spain

ROOM 2 –PAPERS BLOCK C

15.30 **“Reduction of CO₂ emissions in ceramic tile manufacture by combining energy-saving measures”**

A. Mezquita⁽¹⁾, E. Monfort⁽¹⁾, E. Vaquer⁽¹⁾, S. Ferrer⁽¹⁾, J.M. Pitarch⁽²⁾, M.A. Arnal⁽²⁾, F. Cobo⁽²⁾

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I., ⁽²⁾ Azulev, S.A.U.

Spain

16.05 **“Energy efficiency begins with the design of the ceramic plant”**

José Luis Quintela Cortes

Ingeniero Industrial, IAG INGENIEROS,

Spain

CONFERENCE

16.35 **“ENAC, an ally of exporting companies”**

José Luis Borrego

Head of the Department of Laboratories. ENAC (Spanish National Accreditation Body)

Spain

17.35 **“New business models for the Spanish ceramic sector”**

M.G. Casado (1), D. Gobert (1), S. Veral (1), M. Toumi (2), E. Uviedo (2)

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I. ⁽²⁾ Asociación Española de Fabricantes de Azulejos y Pavimentos Cerámicos (ASCER)

Spain

18.05 **“The ceramic industry in Spain: challenges and opportunities in times of crisis”**

J.Llop¹, T. Stoyanova Lyubenova², E. Barrachina², M.D. Notari¹, I. Nebot¹, J.B. Carda²

1. Escuela Superior de Cerámica de l'Alcora. 2. Dpto. Química Inorgánica y Orgánica. Universitat Jaume I

Spain

ROOM 3 – PAPERS BLOCK C

15.30 **“Synthesis of ceramic pigments by non-conventional methods for use in the new ceramic decoration technologies ”**

T. Stoyanova Lyubenova, M.C. Peiró*, A.Rey*, R. Martí*, I. Calvet* y J. B. Carda**

*Dep. Química Inorgánica i Orgánica, Universitat Jaume I,

Spain

16.05 **“Formulation of porcelain tile glazes using a new boron raw material. Study of the physico-chemical transformations that develop in firing.**

J.L. Amorós⁽¹⁾, M. P. Gómez-Tena⁽¹⁾, A. Moreno⁽¹⁾, E. Blasco⁽¹⁾, S. Cook⁽²⁾, M. Galindo⁽²⁾

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I., ⁽²⁾ Rio Tinto Minerals.

Spain

16.35 **“Nanostructured coatings on fired glazes by spray pyrolysis”**

M.D. Palacios, E. Blasco, E. Zumaquero, S. Mestre

Instituto de Tecnología Cerámica. Asociación de Investigación de las Industrias Cerámicas. Universitat Jaume I.

Spain

17.05 **“Crystallization behaviour of CaO-Al₂O₃-SiO₂ glass-ceramic glazes using TiO₂ and mullite under fast firing conditions”**

Güneş ÇIĞDEMİR KORÇ¹, Ayşe TUNALI², Yeşim BALTAÇI², Alpagut KARA^{1,3}

¹Ceramic Research Center, Anadolu University, ²Eczacıbaşı Building Product Co. VitrA Innovation Centre, Bilecik, ³Anadolu University, Department of Material Science and Engineering, Eskişehir

Turkey

17.35 **An insight into the pyroplasticity of porcelain stoneware tiles**

Fábio G. Melchades¹, Anselmo O. Boschi¹, Lisandra R. dos Santos¹, Michele Dondi², Chiara Zanelli², Mariano Paganelli³, Vittorio Mercurio³

¹LaRC, Laboratório de Revestimentos Cerâmicos, Departamento de Engenharia de Materiais, Universidade Federal de São Carlos, ²CNR-ISTEC, Istituto di Scienza e Tecnologia dei Materiali Ceramici, ³Expert System Solutions,

Brazil¹ –Italy^{2,3}

18.05 **On-line deformation monitoring of thin ceramic tiles**

Gian Marco Revel⁽¹⁾; Giuseppe Pandarese⁽¹⁾; Marco Emiliani⁽¹⁾; Andrea Bresciani⁽²⁾; Claudio Ricci⁽²⁾

⁽¹⁾ Università Politecnica delle Marche, DIISM, ⁽²⁾SACMI IMOLA S.C.

Italy



- 15.30 **POSTERS ROOM – VISIT**
- 18.45 Shuttle bus service from the Congress venue to the hotels

TUESDAY, FEBRUARY 18

- 08.05 Shuttle bus service from the hotels to the Congress Venue (Official Chamber of Commerce, Industry and Navigation).

ROOM 1 - QUALICER ZOOM”

- 08.30 **“DIGITAL PRINTING” Technology Panel debate**

Chairman:

Vicente Sanz Solana

Director of the Instituto Universitario de Tecnología Cerámica
Head of the Area for Nanotechnology and Printing Technologies

Members:

Rafael Porcar (Sales Manager and head of the technical services Ink jet Division. Ferro Spain
Jesús Fernández Valenzuela. Ink jet project manager. Group Esmalglass-Itaca
Eduardo Casañ. Technical Director of Argenta Cerámica
Juan Luis López. Technical Director of Pamesa Cerámica.
José Vicente Tomas Claramonte. Gerente de Kerajet.
Efi- Cretaprint

Discussion

- 11.00 **COFFEE BREAK**

ROOM 2 – PAPERS BLOCK C

- 08.30 **“Determination of the dustiness of raw materials used in the ceramic sector”**

A. López-Lilao ⁽¹⁾, *A. Escrig* ⁽²⁾, *V. Sanfelix* ⁽²⁾, *E. Monfort* ^(1,2), *G. Mallol* ^(1,2)

⁽¹⁾ Dept. of Chemical Engineering. Universitat Jaume I. ⁽²⁾ Instituto de Tecnología Cerámica. Asociación de Investigación de las Industrias Cerámicas. Universitat Jaume I.
Spain

09.05 **“Use of coatings to reduce fluorine compound emissions”**

J. Piquer⁽¹⁾; M. Pintor⁽²⁾; M. Catalán⁽³⁾; A. Figols⁽⁴⁾; E. Monfort⁽⁵⁾; F. J. García-Ten⁽⁵⁾; C. Moreda⁽⁵⁾; S. Gomar⁽⁵⁾

⁽¹⁾ Neos Additives, S. L., ⁽²⁾ Azuliber 1, S. L., ⁽³⁾ Maincer, S. L., ⁽⁴⁾ Cerámica Vilar Álvaro, S. L., ⁽⁵⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I.

Spain

09.35 **“Ceramic tiles with very low density developed by recycling glaze waste”**

Giovani Nesi, Adriano Michael Bernardin

Ceramic Materials Group, UNESC, Criciúma, Santa Catarina,

Brazil

10.05 **“Increase in vitrified tile production by the use of borate flux”**

Shreekant Somany¹, G.G. Trivedi¹, T. Sridhar¹, Ashutosh Goel¹, Debajyoti Mohanty¹, B. Pitchumani²

⁽¹⁾Somany Ceramics Limited, Kassar, Haryana. ⁽²⁾Department of Chemical Engineering, Indian Institute of Technology, Delhi,

India

10.35 **“Study of ceramic body compositions with the addition of mullites obtained from thermally activated clays”**

O.J. Restrepo¹, Y. Bermudez¹, R.J. Rincón⁴, D. Fraga², J. Llop², J.B. Carda³

1.Universidad Nacional de Colombia. Facultad de Minas, 2. Escuela Superior de Cerámica de l'Alcora. 3. Dpto. Química Inorgánica y Orgánica. Universitat Jaume I, 4. Universidad Antonio Nariño. Facultad de Ciencias

Colombia¹⁻⁴ Spain²⁻³

11.00 **COFFEE BREAK**

ROOM 3 - PAPERS BLOCK B

08.30 **“Basic design: a creative tool for personalizing ceramic products”**

Cristina Iranzo Reig / María Pascual Nebot

ETSID –UPV- / TECNOGRAFICA IBERICA DESIGN, SL

Spain

09.05 **“Open habitat. An open source technology development platform for the smart habitat”**

Garrido, S. ⁽¹⁾, Gisbert, J. ⁽²⁾, Mira, J. ⁽³⁾, Molina T. ⁽⁴⁾, Revert, C. ⁽⁵⁾

⁽¹⁾Instituto Tecnológico de la Construcción (AIDICO), ⁽²⁾Instituto Tecnológico textil (AITEEX), ⁽³⁾Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE), ⁽⁴⁾Instituto Tecnológico de Óptica, Color e Imagen (AIDO), ⁽⁵⁾Instituto Tecnológico del Mueble, Madera, Embalajes y Afines (AIDIMA)

Spain

09.35 **“Ceramic cladding systems in Solar Decathlon competition prototypes. Use to date and future potential”**

Noelia Pitarch Sabater⁽¹⁾ Teresa Gallego Navarro⁽²⁾ and Ángel M. Pitarch Roig⁽³⁾

⁽¹⁾Bachelor Degree student in Technical Architecture at Universitat Jaume I , ⁽²⁾Faculty Advisor for équipe VIA-UJI, Professor of the Department of Engineering and Construction at Universitat Jaume I , ⁽³⁾Director of the Ceramics Classroom, Professor of the Department of Mechanical Engineering and Construction at Universitat Jaume I

Spain

ROOM 3 - CONFERENCE

10.05 **“ASCER ceramics for architecture and interior design Awards: a twelve-year track record “**

Ramon Monfort Salvador & Jaime Prior y Llombart

Territorial College of Architects of Castellon.

Spain

08.30 **POSTERS ROOM – VISIT**

11.00 **PAUSA – CAFÉ**

ROOM 1- QUALICER ZOOM:

11.30 **“DIGITAL PRINTING II” Strategy Panel Debate**

Chairman: José Cabedo. General Manager of Endeka Ceramics.

Members:

Julio García. European Business Director Performance Coatings.Ferro Spain S.A.

Antonio Blasco. General Manager Esmalglass, S.A. and Itaca S.A.

Fernando Roig. President of Pamesa Group

José Cifre. Manager of Argenta Cerámica.

Sergio Cepriá. Director of operations, Efi- Cretaprint.

José Vicente Tomás Claramonte. Manager of Kerajet.

Discussion

13.35 **“Continuous compaction of ceramic slabs with integrated fastening system”**

A. Bresciani, C. Ricci

SACMI Imola

Italy

14.00 **LUNCH BREAK**

ROOM 2 - PAPERS BLOCK C

11.30 **“Feasibility of using rice straw ash in porcelain tile compositions”**

Álvaro Guzmán A^{1*}, Silvio Delvasto A¹, Vicente Amigó B², María Francisca Quereda V³, Enrique Sánchez V³
1-Grupo de Investigación de Materiales Compuestos, GMC. Escuela de Ingeniería de Materiales, Universidad del Valle, Cali, 2- Instituto de Tecnología de Materiales, Universidad Politécnica de Valencia, 3-Instituto de Tecnología Cerámica, Universidad Jaume I,

Colombia¹ –Spain^{2,3}

12.05 **“Chemical etching as non-slip treatment on porcelain stoneware tiles”**

B. Mazzanti, E. Rambaldi, F. Prete
Centro Ceramico Bologna,

Italy

12.35 **“Optical hazing in polished porcelain tiles: Measuring, thus defining, controlling and defeating a defect”**

Richard Bowman⁽¹⁾ and Michele Lanzetta⁽²⁾

(1) InterTile Research Pty Ltd, (2) Department of Civil and Industrial Engineering, University of Pisa,

Australia⁽¹⁾- Italy⁽²⁾

13.05 **“Analysis of the life span of flooring slip resistance performance”**

A. Muñoz⁽¹⁾, G. Silva⁽¹⁾, R. Domínguez⁽¹⁾, J. Gilabert⁽¹⁾, M. López⁽²⁾, M.C. Segura⁽³⁾

(1) Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I., (2) Exagres, S.A., (3) Vernís, S.A.

Spain

13.35 **“Polishing process of ceramic tiles – influence of tool wear on gloss”**

Anatolij Olenburg¹, Jan C. Aurich¹, Fabio Jose Pinheiro Sousa¹

¹FBK - Institute for Manufacturing Technology and Production Systems, University of Kaiserslautern,

Germany

14.00 **LUNCH BREAK**

ROOM 3 – PAPERS BLOC B

11.30 **“Quantification of building energy efficiency improvement with innovative systems based on ventilated façades”**

Alberto Escrig, Emilie Bannier, Encarna Bou, Vicent Cantavella, Jorge Corrales

Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE). Universitat Jaume I.

Spain

12.05 **“Ceramic fabrics: a new architectural opportunity for ceramics”**

Vicente Sarrablo (D. Arch.)

Universitat Internacional de Catalunya

Spain

- 12.35 **“Practical experience in the implementation of ETAG 034 for ceramic external wall cladding kits - CE marking of kits in accordance with EU construction products regulation no. 305/2011”**

María Bento Fernández

ITeC - Instituto de Tecnología de la Construcción de Cataluña

Spain

- 13.05 **“Ceramics in building rehabilitation. Innovation and reuse”**

Víctor Echarri Iribarren; M^a Isabel Pérez Millán; Angel González Avilés; Antonio Galiano Garrigós
Cátedra Cerámica de la Universidad de Alicante,

Spain

13.35

11.00 **POSTERS ROOM – VISIT**

14.00 **LUNCH BREAK**

ROOM 1 - PAPERS BLOCK C

- 15.30 **“Stabilisation of pigments in digital inkjet printing inks by wetting and dispersing additives based on new polymerisation technologies”**

Markus Roessner⁽¹⁾, Roger Escámez⁽²⁾

⁽¹⁾ Byk-Chemie GmbH,

⁽²⁾ Comindex SA,

Germany⁽¹⁾ - Spain⁽²⁾

- 16.05 **“Influence of printing conditions on image quality”**

Sanz, V. ^(); Bautista, Y. ^(*); Belda, A. ^(*); Coll, N. ^(*); Pato, B. ^(*); Gonzalez, J. ^(**)*

^(*)Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE).
Universitat Jaume I., ^(**)Coloronda S.L.

Spain

- 16.35 **“A travel into ceramic pigments micronizing”**

Chiara Zanelli¹, Gülşen L. Güngör²⁻³, Alpagut Kara²⁻³, Magda Blosi¹, Michele Dondi¹, Davide Gardini¹

¹CNR-ISTEC, Istituto di Scienza e Tecnologia dei Materiali Ceramici, ²SAM, Ceramic Research Center Inc.,
Eskişehir, ³Department of Materials Science and Engineering, Anadolu University, Eskişehir,

Italy¹-Turkey²⁻³

- 17.05 **“Influence of the kaolin in the substrate on the quality of inkjet printing”**

⁽¹⁾Luc Bourgy, ⁽¹⁾Alexandre Barreau, ⁽²⁾Cedric Poilly

⁽¹⁾ Imerys Ceramics Technologies, Newton Abbot– ⁽²⁾Imerys Ceramics France – Ceramic Centre – Limoges –

UK⁽¹⁾ -France ⁽²⁾

ROOM 1 - CONFERENCE

17.35 “Overview of the Advanced Ceramic Industry and Potential Opportunities for the Tile Industry “

William M. Carty

Chair of Ceramic Engineering at Alfred University.

USA

Discussion

ROOM 2 – PANEL DEBATE

15.30 “Constructive solutions with ceramic coverings”

Chairman:

Jonas Silvestre Medeiros. Innovatec Consultores (Brazil)

Members:

- José Antonio Chica. Tecnalia (Spain)
- Richard Bowman (Australia)
- Brian Newell. Shackerley Holdings Ltd. (UK)
- José Luis Fenollosa, Butech (Porcelanosa Group) (Spain)

Discussion

ROOM 3 - PAPERS BLOCK C

15.30

16.05 “Adaptation of ceramic tile dimensional tolerances to product type and processing conditions”

J. Boix⁽¹⁾, G. Mallol⁽¹⁾, M. Aguilera⁽¹⁾, D. Hotza⁽²⁾, S. Dolly⁽²⁾; V. Cantavella⁽³⁾

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE), Universitat Jaume I. ⁽²⁾ Universidad Federal de Santa Catarina. Departamento de Ingeniería Mecánica, Florianópolis, SC. ⁽³⁾ Itaca, S.A.

Spain^(1,3) – Brazil⁽²⁾

16.35 “Comparative study of different control strategies in the ceramic tile forming stage”

J. Boix⁽¹⁾, G. Mallol⁽¹⁾, D. Llorens⁽¹⁾, M.J. Sánchez⁽¹⁾, D. Santos⁽²⁾, D. Hotza⁽²⁾

⁽¹⁾ Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE), Universitat Jaume I. ⁽²⁾ Universidad Federal de Santa Catarina. Departamento de Ingeniería Mecánica, Florianópolis, SC.

Spain⁽¹⁾ - Brazil⁽²⁾

17.05 **“Estimation of quartz particle size and content from non-destructive measurements of the ceramic tile modulus of elasticity”**

Marcelo Dal Bó^(1,2), Vicente Cantavella Soler⁽³⁾, Enrique Sánchez⁽³⁾, Dachamir Hotza⁽¹⁾, Anselmo Ortega Boschi⁽⁴⁾.

(1) Pos-Graduación en Ciencias e Ingeniería de Materiales (PGMAT), Universidad Federal de Santa Catarina (UFSC), (2) Instituto Federal de Educación, Ciencia y Tecnología del Rio Grande der Sur (IFRS), Campus Feliz, (3) Instituto de Tecnología Cerámica. Asociación de Investigación de las Industrias Cerámicas. Universidad Jaume I. (4) Universidad Federal de São Carlos (UFSCar),

[Brazil^{\(1,2,4\)}- Spain^{\(3\)}](#)

15.30 **POSTERS ROOM - VISIT**

18.40 **ROOM 1 - CLOSING CEREMONY**

19.10 Shuttle bus service from the Congress venue to the hotels