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XVI
ECerS
CONFERENCE

TORINO
16-20 JUNE
2019

XVI CONFERENCE AND EXHIBITION OF THE EUROPEAN CERAMIC SOCIETY

MONDAY 17 JUNE
DAILY PROGRAMME

Room	**7** *Main Pav.*	*Aula Magna Main Pav.*	**3** *Corte Interrata*	**7** *Corte Interrata*	**2** *Corte Interrata*	**1** *Corte Interrata*	**10** *Corte Interrata*	**T1** *Pav. T*	**9** *Corte Interrata*	**5** *Corte Interrata*	**8** *Corte Interrata*	*Castello del Valentino*
08.30 10.30		Opening Ceremony & Plenary Lectures										
10.30 11.00		Transfer to Corte Interrata										
11.00 13.00			S1	S1	S3	S4	S4	S5	S6	S7	S8	
13.00 14.30			Lunch									
14.30 16.30	Student Speech Contest		S1	S1	S3	S4	S4	S5	S6	S7	S8	S9
16.30 17.00			Coffee break									
17.00 19.00			S1	S1	S3	S4	S4	S5	S6	S7	S8	S9

LEGENDA

- **S1** Innovative processing and synthesis
- **S2** HT Processes and Advanced Sintering
- **S3** Modelling of ceramics together with IV Cermodel: "Modelling and simulation meet innovation in ceramics technology"
- **S4** Advanced structural ceramics, composites and refractories
- **S5** Ceramics and glasses for healthcare
- **S6** Ceramics for energy conversion and storage
- **S7** Functional Ceramics
- **S8** Silicate Ceramics
- **S9** Ceramics in Cultural Heritage and Art
- **A&D** Art & Design in Ceramics

Time	Name	Title
08:15 09:00	OPENING CEREMONY	
09:00 09:45	Zhengyi Fu	BIOPROCESS-INSPIRED SYNTHESIS AND FABRICATION FOR INORGANIC MATERIALS
09:45 10:30	Tommaso Ghidini	CERAMICS FOR SPACE AND IN SPACE
10:30 11:00	Transfer to Corte Interrata	

Programme updated to **Wednesday, 22 May, 2019.** The current, finally updated programme will be available in the conference **APP ECerS 2019**.

S 01 - ROBOCASTING/DIRECT INK WRITING 1 - 11:00-13:00

Chair: Andre Studart

Time	Name	Title	ID Abs
11:00 11:30	Eduardo Saiz Gutierrez *Invited Lecture*	ADDITIVE MANUFACTURING AND STRUCTURAL CONTROL OF CERAMICS	218
11:30 11:45	Julie Bourret	ROBOCASTING AND RHEOLOGY OF VERY CONCENTRATED ECO-FRIENDLY CERAMIC PASTES	782
11:45 12:00	Giorgia Franchin	DIRECT INK WRITING OF NON-OXIDE CERAMICS	643
12:00 12:15	Gloria Marigo	COMPLEX-SHAPED SILICON CARBIDE CERAMIC PARTS PRODUCED BY PELLETS ADDITIVE MANUFACTURING AND REACTIVE MELT INFILTRATION	401
12:15 12:30	Gorjan Lovro	EFFECT OF STEARIC ACID AMOUNT ON RHEOLOGICAL PROPERTIES OF CERAMIC FEEDSTOCKS FOR FUSED FILAMENT FABRICATION	600
12:30 12:45	Dirk Penner	ADDITIVE MANUFACTURING OF CERAMICS BY MICRO EXTRUSION OF COMPOSITE GRANULATES	294
12:45 13:00	Iuliia S Elizarova	ROBOCASTING OF FOLDABLE CERAMICS	932

S 01 - ROBOCASTING/DIRECT INK WRITING 2 - 14:30-16:30

Chair: Eduardo Saiz Gutierrez

Time	Name	Title	ID Abs
14:30 15:00	Andre Studart *Invited Lecture*	HIERARCHICAL POROUS CERAMICS MADE BY 3D PRINTING	940
15:00 15:15	Frank Clemens	MULLITE HONEYCOMB CERAMICS STRUCTURES MADE BY FUSED DEPOSITION MODELLING (FDM) 3D PRINTING USING PRECERAMIC POLYMERS	725
15:15 15:30	Arish Dasan	HIERARCHICALLY POROUS 3D-PRINTED ÅKERMANITE SCAFFOLDS FROM SILICONES AND ENGINEERED FILLERS	699
15:30 15:45	Mathilde Maillard	ROBOCASTING OF DENSE CERAMIC SINGLE- AND BI-MATERIALS WITH COMPLEX GEOMETRIES	409
15:45 16:00	Rebecca Walton	DENSIFICATION AND CRYSTALLOGRAPHIC ALIGNMENT OF DIRECT WRITTEN PIEZOELECTRIC CERAMICS PRINTED WITH ANISOTROPIC NOZZLES	63

S 01 - ROBOCASTING/DIRECT INK WRITING 2

Time	Name	Title	ID Abs
16:00 16:15	Alberto Gómez-Gómez	THE EFFECT OF ROD ORIENTATION ON THE STRENGTH OF HIGHLY POROUS 3D CERAMIC ARCHITECTURES	606

S 01 - CERAMIC INK ENGINEERING - 17:00-19:00

Chair: Fabrice Rossignol

Time	Name	Title	ID Abs
17:00 17:15	Juan José Moyano-Subires	TRIDIMENSIONAL PRINTING OF STRUCTURES FROM COLLOIDAL INKS BASED ON GRAPHENE OXIDE USED AS PLATFORM FOR HYBRID MATERIALS	356
17:15 17:30	Ido Cooperstein	ADDITIVE MANUFACTURING OF TRANSPARENT SILICA GLASS FROM SOLUTIONS	715
17:30 17:45	Francisco J. Martínez-Vázquez	FABRICATION AND MECHANICAL BEHAVIOUR OF CERAMIC/POLYMER POROUS SCAFFOLDS WITH CORE/SHELL ARCHITECTURE FOR BONE TISSUE REGENERATION	396
17:45 18:00	Juan Carlos Perez-Flores	FDM-3D PRINTING OF SOFCs	761
18:00 18:15	Manuel Belmonte	MULTIFUNCTIONAL 3D PRINTED CELLULAR Cr_2AlC MAX-PHASE ARCHITECTURES	815
18:15 18:30	Moritz Weiß	3D-PRINTED LIGHTWEIGHT CERAMICS USING CAPILLARY SUSPENSIONS WITH INCORPORATED NANOPARTICLES	54

S 01 - ADVANCED COATINGS - 11:00-13:00			
Chair: Manabu Fukushima			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Marco Faustini *Invited Lecture*	SOL-GEL PROCESSING OF NOBLE METAL OXIDES NANOSTRUCTURED COATINGS FOR ENERGY RELATED APPLICATIONS	654
11:30 11:45	Izabela Rutkowska	SOL-GEL AND ELECTROPHORETIC ALUMINA COATINGS ON METAL SUBSTRATES AS CATALYST SUPPORTS	232
11:45 12:00	Mustafa Cagri Bayir	FABRICATION AND PROCESSING OF THE LANTHANUM DOPED PZT THIN FILMS ON Pt(111)/Ti/SiO_2/Si(100) AND GALLIUM-DOPED ZINC OXIDE COATED GLASS SUBSTRATES	819
12:00 12:15	Mateusz Dulski	ALTERNATIVE ROUTES TO FABRICATION OF BIOCOMPATIBLE THIN FILM COATINGS ON SHAPE MEMORY ALLOYS	671
12:15 12:30	Elodie Niemiec	SOFT CHEMISTRY MICROWAVE ASSISTED NANO-STRUCTURED COATINGS ELABORATION FOR SELF-CLEANING AND ANTIBACTERIAL USES.	332
12:30 12:45	María José Orts	PLASMA SPRAYED BIOACTIVE GLASS COATINGS DEPOSITED WITH TWO DIFFERENT PLASMA TORCHES	316
12:45 13:00	Mariana Trujillo Arredondo	ELABORATION OF AN ALUMINUM OXIDE THIN FILM DEPOSITED BY MAGNETRON SPUTTERING ON BORON NITRIDE SUBSTRATES: ROLE OF THE PHYSICAL AND CHEMICAL PROPERTIES OF BN SUBSTRATES	112

S 01 - CERAMIC FOAMS AND MEMBRANES 1 - 14:30-16:30			
Chair: Marco Faustini			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Manabu Fukushima *Invited Lecture*	RELATIONSHIP BETWEEN PROCESS, MICROSTRUCTURES AND PROPERTIES OF HIGHLY POROUS CERAMIC INSULATORS PREPARED BY GELATION FREEZING ROUTE	635
15:00 15:15	Hermina Hudelja	FREEZE CASTING OF HIGHLY-POROUS GAMMA-AL2O3 FOAMS	540
15:15 15:30	Noriaki Arai	POROUS SHAPE MEMORY ZIRCONIA BY GRADIENT-CONTROLLED FREEZE CASTING	837
15:30 15:45	Cathrine Christiansen	FREEZE-CASTING AS A PROCESSING ROUTE TO FABRICATE ACTIVE MAGNETIC REGENERATORS FOR MAGNETIC REFRIGERATION	727
15:45 16:00	Luca Bertolla	COMPOSITE AL2O3/SIO2/CAO FOAMS REINFORCED WITH CELLULOSE ACETATE FIBRES FROM CIGARETTE TOWS	809

S 01 - CERAMIC FOAMS AND MEMBRANES 1			
Time	**Name**	**Title**	**ID Abs**
16:00 16:15	Jie Xu	HIGHLY POROUS LANTHANUM ZIRCONATE CERAMIC FOAMS WITH ULTRA-LOW THERMAL CONDUCTIVITY AND HIGH STRENGTH	41
16:15 16:30	Haijun Zhang	PREPARATION OF HIGH-PERFORMANCE POROUS CERAMICS VIA FOAM-GELCASTING METHOD	15

S 01 - CERAMIC FOAMS AND MEMBRANES 2 - 17:00-19:00			
Chair: Fabrice Rossignol			
Time	**Name**	**Title**	**ID Abs**
17:00 17:15	Jorge Frade	DESIGN OF POROUS CELLULAR AL2O3-3YTZ CERAMICS FOR MEMBRANE APPLICATIONS	424
17:15 17:30	Mohammed Rashad Kakkattummal	A NOVEL POROUS MULLITE AND MULLITE-AL2O3 MEMBRANE FOR MICROFILTRATION APPLICATIONS	257
17:30 17:45	Jong-Jin Choi	POROUS THERMAL INSULATION COATINGS FOR INTERNAL COMBUSTION AUTOMOBILE ENGINES	730
17:45 18:00	Jang-Hoon Ha	PREPARATIONS AND CHARACTERIZATIONS OF LOW-COST POROUS CERAMIC MEMBRANES FOR POTENTIAL MICROFILTRATION AND ULTRAFILTRATION APPLICATIONS	575
18:00 18:15	Mi Rae Youm	EFFECT OF NANO CARBON SOURCES ON THE MECHANICAL PROPERTIES AND PORE CHARACTERISTICS OF MESO-MACRO POROUS SIC SYNTHESIZED BY DIRECT REACTION OF SILICON AND CARBON	29
18:15 18:30	Ruta Svinka	HIGHLY POROUS OXIDE CERAMIC AS THE SUPPORT FOR CATALYSTS	144
18:30 18:45	Yuping Zeng	FABRICATION AND MECHANICAL PROPERTIES OF POROUS SI3N4 CERAMICS PREPARED VIA SHS	18
18:45 19:00	Mieke W.J. Luiten-Olieman	MESOPOROUS (HYBRID) SILICA NANOCHANNEL MEMBRANE	421

S 03 - MODELLING OF CERAMICS 1 - 11:00-13:00			
Chair: Davide Bigoni			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Robert Mcmeeking *Invited Lecture*	CRACKING OF CERAMIC ELECTROLYTES DRIVEN BY LITHIUM INSERTION AND SUPPRESSION OF ROUGHENING OF METAL ELECTRODES PLATED BY LITHIUM	387
11:30 12:00	Vikram Deshpande *Invited Lecture*	PENETRATION OF CONFINED CERAMICS TARGETS	682
12:00 12:15	Tereza Uhlirova	GRAIN SIZE DEPENDENCE OF YOUNG'S MODULUS AND THERMAL CONDUCTIVITY	100
12:15 12:30	Vladimir Buljak	MODELING OF ELASTIC MODULUS EVOLUTION IN POROUS CERAMICS DUE TO THERMALLY INDUCED CRACKING	773
12:30 12:45	Manuella Cerbelaud	DETERMINATION OF THE SHEAR VISCOSITY IN MESOSCOPIC SIMULATIONS OF CERAMIC COLLOIDAL SUSPENSIONS	747
12:45 13:00	Julie Devillard	LINK BETWEEN MICROSTRUCTURE AND COMPRESSIVE STRENGTH OF LIGHTWEIGHT GYPSUM	681

S 03 - MODELLING OF CERAMICS 2 - 14:30-16:30			
Chair: Alberto Salvadori			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Andreas Wiegmann *Invited Lecture*	VIRTUAL PROPERTY COMPUTATION AND DESIGN OF CERAMIC MATERIALS	53
15:00 15:30	Paul Bowen *Invited Lecture*	ATOMISTIC MODELLING OF GRAIN BOUNDARY SEGREGATION FROM TRANSPARENT POLYCRYSTALLINE ALUMINA TO CALCIUM PHOSPHATE CERAMICS.	780
15:30 15:45	Andrea Piccolroaz	EXPERIMENT AND SIMULATION OF THE FORMATION OF GREEN BODIES FROM ALUMINA POWDER	284
15:45 16:00	Francesco Baino	ACOUSTIC METHOD FOR EVALUATING THE PERMEABILITY OF BONE-LIKE BIOACTIVE GLASS-CERAMIC SCAFFOLDS	827
16:00 16:15	Jose Antonio Bejarano Palma	PHASE FIELD MODELLING OF GRAIN GROWTH UNDER ELECTRIC FIELDS: APPLICATION TO THE SPARK PLASMA SINTERING	817
16:15 16:30	Dong Hyup Jeon	WETTABILITY IN THE ELECTRODE OF LITHIUM-ION BATTERIES	526

S 03 - MODELLING OF CERAMICS 3 - 17:00-19:00			
Chair: Andrea Piccolroaz			
Time	**Name**	**Title**	**ID Abs**
17:00 17:30	Davide Bigoni *Invited Lecture*	MECHANICAL MODELLING OF CERAMIC POWDER FORMING AND SINTERING	804
17:30 17:45	Peter Supancic	THE EFFECT OF SUBCRITICAL CRACK GROWTH ON A WEIBULLIAN STRENGTH DISTRIBUTION – THEORY AND EXPERIMENTS	149
17:45 18:00	Farid Asadi	DISCRETE ELEMENT METHOD (DEM) MODELLING OF WEDGE SPLITTING TEST BY FOCUSING ON THE BRITTLENESS OF QUASI-BRITTLE MATERIALS	834
18:00 18:15	Pratik Gajjar	EFFECT OF CREEP ON REFRACTORY MASONRY WALL SUBJECTED TO HIGH TEMPERATURE	629
18:15 18:30	Alexander Frenzl	DIGITAL TRANSFORMATION IN THE CERAMICS INDUSTRY - A VIRTUAL VIEW INTO YOUR SINTERING PROCESS BY THERMOKINETIC SIMULATION	640
18:30 18:45	Pedro Carneiro	RECONSTRUCTION AND VALIDATION OF THE MICROSTRUCTURE OF THE REAL ZIRCONIA TOUGHENED ALUMINA CERAMIC COMPOSITE	752
18:45 19:00	Vojislav Mitic	BATIO3-CERAMICS AND GRAIN GROWTH ENGINEERING USING FRACTAL NATURE APPROACH	330

S 04 - CMCs, CARBIDES AND NITRIDES 1 - 11:00-13:00			
Chairs: Diletta Sciti, Pavol Sajgalik			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Dietmar Koch *Invited Lecture*	SOME ISSUES ON MANUFACTURING OF NONOXIDE FIBER REINFORCED NONOXIDE CERAMICS	485
11:30 11:45	Katrin Schönfeld	INTERACTION BETWEEN MATRIX COMPOSITION AND PROPERTIES OF SIC / SIC COMPOSITES	197
11:45 12:00	Antonio Vinci	SINTERING BEHAVIOUR AND OXIDATION RESISTANCE OF CARBON FIBRE REINFORCED ZRB2/SIC/WC COMPOSITES	75
12:00 12:15	Jiwei Cao	FABRICATION OF SiC CERAMIC MATRIX COMPOSITE BASED ON ADDITIVE MANUFACTURE AND GEL-CASTING	755
12:15 12:30	Annalisa Natali Murri	INORGANIC POLYMER MATRIX IN FIBER REINFORCED COMPOSITES	343
12:30 12:45	Héloïse Delpouve	INFLUENCE OF SILICON INFILTRATION ON THE MECHANICAL BEHAVIOR AND DAMAGE MECHANISMS OF CVI-PROCESSED SIC / SIC CERAMIC MATRIX COMPOSITE.	687

S 04 - CMCs, CARBIDES AND NITRIDES 2 - 14:30-16:30			
Chair: Dietmar Koch			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Walter Krenkel *Invited Lecture*	SHORT-FIBER CMCs	473
15:00 15:15	André Ebel	MULTISCALE OBSERVATION OF THE SELF-HEALING PHENOMENA IN A CERAMIC MATRIX COMPOSITE	668
15:15 15:30	Sree Rama Chandra Murthy Tammana	SILICON CARBIDE COATING OF 2.5D CARBON FIBERS BY CHEMICAL VAPOR INFILTRATION AND STUDIES OF OXIDATION BEHAVIOR IN THE PRESENCE OF RARE EARTH OXIDES	135
15:30 16:00	Pavol Sajgalik	ULTRA-HIGH CREEP RESISTANT SILICON CARBIDE CERAMICS	217
16:00 16:15	Young-Wook Kim	JUDICIOUS SELECTION OF SINTERING ADDITIVES FOR ACHIEVING HIGH-PERFORMANCE SILICON CARBIDE CERAMICS	496
16:15 16:30	Hyun-Woo Sung	NOBLE PROCESS FOR RECRYSTALLIZED SILICON CARBIDE THROUGH BETA TO ALPHA PHASE TRANSFORMATION	150

ADVANCED STRUCTURAL CERAMICS, COMPOSITES AND REFRACTORIES
ROOM 1 - CORTE INTERRATA

S 04 - CMCs, CARBIDES AND NITRIDES 3 - 17:00-19:00			
Chairs: Walter Krenkel			
Time	**Name**	**Title**	**ID Abs**
17:00 17:15	Xiaojie Wang	MICROSTRUCTURE AND TRIBOLOGICAL BEHAVIORS OF SELF-LUBRICATING MESOCARBON MICROBEADS (MCMBs)-SIC COMPOSITE	59
17:15 17:30	Bibi Malmal Moshtaghioun	INTRINSIC MECHANICAL PROPERTIES AND CONDUCTION MECHANISM OF FULLY-DENSE BORON CARBIDE CERAMICS AS A FUNCTION OF THE GRAIN SIZE	358
17:30 17:45	Cristina Ojalvo Guiberteau	FABRICATING TOUGHENED SUPER-HARD B4C COMPOSITES AT LOWER TEMPERATURE BY TRANSIENT LIQUID-PHASE ASSISTED-SPARK PLASMA SINTERING WITH $MoSi_2$ ADDITIVES	321
17:45 18:00	Diego Gomez-Garcia	VIOLATION OF THE CLASSICAL LAW FOR GRAIN GROWTH IN TWINNED BORON CARBIDE POLYCRYSTALS UNDER ELECTRIC FIELDS	607
18:00 18:15	Heng Luo	ENHANCED MECHANICAL PROPERTIES OF SI3N4 CERAMICS WITH TI3SIC2 AS NOVEL SINTERING AIDS	420
18:15 18:30	Jose Manuel Morgado Chávez	EFFECT OF CARBON SUBSTITUTION ON MECHANICAL PROPERTIES OF TITANIUM CARBONITRIDE CERAMICS	361

S 04 - REFRACTORIES 1 - 11:00-13:00			
Chair: Carmen Baudin			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Sido Sinnema *Invited Lecture*	MODERN REFRACTORIES: ADVANCED CERAMICS? THEY CERTAINLY ARE.	173
11:30 11:45	Diana Vitiello	THERMAL PROPERTIES CHARACTERIZATION OF INSULATING REFRACTORY MATERIALS USED IN STEEL LADLES	73
11:45 12:00	Sina Darban	INVESTIGATION ON THERMAL SHOCK RESISTANCE OF ALUMINA-SPINEL REFRACTORY BRICK	700
12:00 12:15	Robert Kaczmarek	THERMOMECHANICAL CHARACTERIZATION OF AN ALUMINA SPINEL REFRACTORY FOR STEEL LADLE APPLICATIONS	519
12:15 12:30	Vahid Tadaion	THE INFLUENCE OF LOADING PROTOCOL ON THE DAMAGE DEVELOPMENT IN MECHANICAL FATIGUE TESTS ON SILICA REFRACTORIES	140
12:30 12:45	Aliz Pinto Mora	OPTIMIZATION OF THERMOMECHANICAL PROPERTIES IN INVESTMENT CASTING SHELL MOLDS	279

S 04 - REFRACTORIES 2 - 14:30-16:30			
Chair: Victor Carlos Pandolfelli			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Carlos Pagliosa Neto *Invited Lecture*	LOW CARBON AND ZERO CARBON BRICKS FOR ULTRA LOW CARBON STEEL PRODUCTION THROUGHOUT INNOVATIVE BINDER SYSTEM	309
15:00 15:15	Hong Peng	IMPROVEMETN IN SLAG RESISTANCE OF NO-CEMENT REFRACTORY CASTABLES BY MATRIX DESIGN	295
15:15 15:30	Ryszard Prorok	HYDRATION BEHAVIOUR OF THE MGO-AL2O3 SYSTEM IN THE PRESENCE OF ORGANIC ACIDS UNDER HYDROTHERMAL CONDITIONS	269
15:30 15:45	Camille Reynaert	IMPACT OF COMPOSITION CHANGE OF ALUMINA RICH SLAG ON THE CORROSION OF RAW MATERIALS USED IN STEEL MAKING REFRACTORIES	248
15:45 16:00	Jacques Poirier	SOLVING DAMAGE TO REFRACTORIES CAUSED BY THE BOUDOUARD REACTION IN CO/H2 ATMOSPHERE BY USING RAMAN SPECTROSCOPY AND TRANSMISSION ELECTRON MICROSCOPY	277
16:00 16:15	Enrico Storti	NANO-FUNCTIONALIZED CERAMIC FOAM FILTERS: EFFECT OF CARBON-BASED NANOMATERIALS ON WETTABILITY	157

ADVANCED STRUCTURAL CERAMICS, COMPOSITES AND REFRACTORIES
ROOM 10 - CORTE INTERRATA
S04

S 04 - REFRACTORIES 3 - 17:00-19:00			
Chair: Christos Aneziris			
Time	**Name**	**Title**	**ID Abs**
17:00 17:15	Jaesung Lee	COUPLED PHASE DIAGRAM EXPERIMENT AND THERMODYNAMIC MODELING OF THE NA2O-ZRO2 SYSTEM	447
17:15 17:30	Monika Tatarková	CORROSION BEHAVIOUR OF SILICON NITRIDE AND SIALON IN MOLTEN FLINAK	125
17:30 17:45	Yibiao Xu	CORROSION MECHANISMS OF MAGNESIA-CHROME REFRACTORIES IN COPPER SLAG AND CONCURRENT FORMATION OF HEXAVALENT CHROMIUM	40
17:45 18:00	Ludmila Mahnicka-Goremikina	MODIFICATION OF THE POROUS MULLITE CERAMIC WITH SOME METAL OXIDES	410
18:00 18:15	Eva Bartonickova	POROUS MULLITE-BASED CERAMICS FABRICATED BY FOAM CASTING	821
18:15 18:30	Joern Grabenhorst	INFLUENCE OF THE MEASUREMENT METHOD AND SAMPLE DIMENSIONS ON THE YOUNG'S MODULUS OF OPEN CELL FOAM ALUMINA	597
18:30 18:45	Anja Härtel	PROCESSING OF HOLLOW STRUCTURES FROM SEMI-FINISHED TEXTILE PRODUCTS IN CERAMIC COMPONENTS	534
18:45 19:00	Xiaofeng Xu	RESEARCHES ON MECHANICAL PROPERTIES AND FRACTURE BEHAVIOR OF MgO-C REFRACTORIES BASED ON WEDGE SPLITTING TEST AND DIGITAL IMAGE CORRELATION: INFLUENCE OF GRAPHITE CONTENT	928

S 05 - NANOCERAMICS FOR MEDICINE - 11:00-13:00

Chair: Isabel Izquierdo-Barba, Anna Tampieri

Time	Name	Title	ID Abs
11:00 11:30	Aldo Boccaccini *Invited Lecture*	MULTIFUNCTIONAL BIOACTIVE GLASSES RELEASING BIOLOGICALLY ACTIVE IONS: FROM BONE ENGINEERING TO WOUND HEALING	797
11:30 11:45	Snezhana Tikhonova	ULTRA-POROUS BIOCERAMIC MATERIALS WITH PREDEFINED ARCHITECTURE FOR BONE TISSUE ENGINEERING	118
11:45 12:00	Devis Bellucci	A CRITICAL COMPARISON OF IN VITRO TESTS FOR BIOCERAMICS: SBF (SIMULATED BODY FLUID) TEST VERSUS DIRECT AND INDIRECT CELL CULTURE TESTS	816
12:00 12:15	Tamás Zagyva	EXAMINATION OF ELECTROSPRAYED BIOGENIC HYDROXYAPATITE COATINGS ON SILICON NITRIDE AND CARBON NANOTUBE REINFORCED SILICON NITRIDE COMPOSITE	27
12:15 12:30	Azade Yazdan Yar	ATOMISTIC SIMULATIONS OF ADSORPTION FREE ENERGY OF AMINO ACIDS AT THE RUTILE (110)/WATER INTERFACE USING METADYNAMICS – IMPLICATIONS FOR SIMULATED BODY FLUID BIOACTIVITY TESTS FOR MEDICAL IMPLANTS	34

S 05 - UNCONVENTIONAL PROCESSES FOR SYNTHESIS OF 3-D CERAMICS 1 - 14:30-16:30

Chair: Paola Palmero, Chiara Vitale-Brovarone

Time	Name	Title	ID Abs
14:30 15:00	Simone Sprio *Invited Lecture*	NATURE INSPIRES A NOVEL UNCONVENTIONAL APPROACH FOR 3-D BIOCERAMICS DEVELOPMENT	160
15:00 15:30	Bikramjit Basu *Invited Lecture*	BIOPHYSICAL STIMULATION OF STEM CELLS ON BIOCERAMICS AND IN BIOMICROFLUIDIC DEVICE: IN VITRO AND IN SILICO STUDIES	966
15:30 15:45	Francesca Cestari	INNOVATIVE SYNTHESIS AND CONSOLIDATION OF HYDROXYAPATITE FROM BIOGENIC CALCIUM CARBONATE SOURCES	746
15:45 16:00	Silvia Panseri	3D BIOCERAMIC MICROENVIRONMENT TO GUIDE MESENCHYMAL STEM CELLS AND ENDOTHELIAL CELLS IN BONE TISSUE REGENERATION	306
16:00 16:15	Mehdi Mohammadi	FUNCTIONALLY GRADED CALCIUM PHOSPHATE MATERIALS: EFFECT OF PROCESSING PARAMETERS ON STRUCTURAL AND MECHANICAL FEATURES	372

CERAMICS AND GLASSES FOR HEALTHCARE
ROOM T1 - PAVILION T

S 05 - UNCONVENTIONAL PROCESSES FOR SYNTHESIS OF 3-D CERAMICS 2 - 17:00-19:00

Chair: Simone Sprio, Gurdial Blugan

Time	Name	Title	ID Abs
17:00 17:30	Roger Narayan *Invited Lecture*	TWO PHOTON POLYMERIZATION-BASED ADDITIVE MANUFACTURING OF MEDICAL DEVICES AND PROSTHESES	345
17:30 17:45	Hamada Elsayed	DIGITAL LIGHT PROCESSING OF BIOACTIVE GLASS-CERAMIC COMPLEX STRUCTURES FOR BONE TISSUE REGENERATION	664
17:45 18:00	Valeria Cannillo	A NEW BIOGLASS WITH ULTRA-HIGH CRYSTALLIZATION TEMPERATURE AND OUTSTANDING BIOLOGICAL PERFORMANCE	758
18:00 18:15	Ana Ferrández-Montero	A NOVEL TECHNIQUE BASED ON FUSED DEPOSITION MODELLING TO OBTAIN 3D FULL-CERAMIC SCAFFOLDS	650
18:15 18:30	Jozef Kraxner	COMBINING FLAME SYNTHESIS AND ADDITIVE MANUFACTURING TECHNOLOGY FOR THE PREPARATION OF NOVEL ÅKERMANITE SCAFFOLDS	474
18:30 18:45	David Menne	3D PRINTING OF BONE SUBSTITUTE MATERIALS BASED ON CAPILLARY SUSPENSIONS	383
18:45 19:00	Janka Wilbig	QUALITY ASPECTS OF ADDITIVELY MANUFACTURED MEDICAL IMPLANTS	52

S 06 - SOFC 1 - 11:00-13:00			
Chair: Federico Smeacetto			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Vincenzo Esposito *Invited Lecture*	DIFFUSION-DRIVEN NANOSCALED TRANSFORMATIONS IN OXYGEN DEFECTIVE CERIUM OXIDE AND COMPOSITES	660
11:30 11:45	João Paulo Freitas Grilo	ELECTRICAL ASSESSMENT OF CE0.1GD0.9O1.95 WITH ADDED ALKALINE SALTS	641
11:45 12:00	Can Sindirac	INFILTRATION-ASSISTED DENSIFICATION OF GDC ELECTROLYTE	176
12:00 12:15	Aligul Buyukaksoy	SOLID OXIDE FUEL CELL COMPONENTS BASED ON YTTRIA DOPED BISMUTH OXIDE	768
12:15 12:30	Edith Bucher	CRYSTAL STRUCTURE AND OXYGEN NONSTOICHIOMETRY OF LOW- AND HIGH- TEMPERATURE MODIFICATIONS OF THE THIRD ORDER RUDDLESDEN-POPPER PHASE $Pr_4(Ni_{0.9}Co_{0.1})_3O_{10}$-∂	775
12:30 12:45	Christian Berger	OXYGEN EXCHANGE KINETICS AND ELECTRONIC CONDUCTIVITY OF THE THIRD ORDER RUDDLESDEN-POPPER PHASE $Pr_4Ni_{2.7}Co_{0.3}O_{10}$	814

S 06 - SOFC 2 - 14:30-16:30			
Chair: Tae Ho Shin			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Junyoung Kim *Invited Lecture*	PROTONICS IN PEROVSKITE MATERIALS FOR PROTONIC CERAMIC FUEL CELLS	499
15:00 15:15	Florian Thaler	ENHANCED PERFORMANCE AND DURABILITY OF METAL-SUPPORTED FUEL CELLS BY OPTIMIZED CELL PROCESSING – RESULTS FROM THE CHRISTIAN DOPPLER LABORATORY	121
15:15 15:30	Giovanna Canu	INTERFACE SOLID-STATE REACTIONS INVESTIGATED BY X-RAY MICROSPECTROSCOPY USING SYNCHROTRON RADIATION: ELECTRODE-ELECTROLYTE COUPLES FOR SOLID OXIDE FUEL CELLS	756
15:30 15:45	Juan Carlos Pérez Flores	DEVELOPMENT AND CHARACTERIZATION OF NEW METAL EXSOLUTED PEROVSKITES AS SOFCs ELECTRODES	292

S 06 - SOFC 2			
Time	**Name**	**Title**	**ID Abs**
15:45 16:00	Andrea Marcucci	INVESTIGATION OF PALLADIUM-DOPED PEROVSKITE OXIDES FOR APPLICATION IN SYMMETRIC SOLID OXIDE FUEL CELL	2
16:00 16:15	Emrah Demirkal	MICROSTRUCTURE AND ELECTROCHEMICAL PERFORMANCE OF POLYMERIC PRECURSOR DERIVED $La_{1-x}Sr_xFeO_3$ THIN FILM CATHODES FOR SOLID OXIDE FUEL CELLS	686
16:15 16:30	Aycan Eksioglu	CRYSTALLIZATION, MICROSTRUCTURE AND ELECTROCHEMICAL PERFORMANCE OF $La_{0.8}A_{0.2}MnO_3$ (A:Sr, Ca)-$Ce_{0.8}Sm_{0.2}O_2$ THIN FILM CATHODES FOR SOLID OXIDE FUEL CELLS	666

S 06 - THERMOELECTRICS - 17:00-19:00			
Chair: Joe Briscoe			
Time	**Name**	**Title**	**ID Abs**
17:00 17:30	Robert Freer *Invited Lecture*	EXPLOITING INTERFACES TO ENHANCE THE PERFORMANCE OF OXIDE THERMOELECTRICS	642
17:30 17:45	Efe Yaris	THE EFFECTS OF RARE EARTH DOPING ON THERMOELECTRIC PROPERTIES OF NACO2O4	36
17:45 18:00	Jon Goldsby	FIRST PRINCIPLES ASSESSMENT OF CERAMIC-BASED THERMOELECTRIC AND THERMIONIC MATERIALS FOR DIRECT ENERGY CONVERSION	608
18:00 18:15	Fabien Giovannelli	EFFECT ON THERMOELECTRIC PROPERTIES OF SUBSTITUTIONS ON THE BARIUM SITE IN THE NEW LAYERED COBALT OXIDE BA2CO9O14	614
18:15 18:30	Anis-Ur-Rehman Muhammad	STRUCTURAL, ELECTRICAL AND THERMAL PERFORMANCE OF THERMOELECTRIC BI(RE)-TE CONTROLLED BY SYNERGISTIC CARRIER SCATTERINGS	354
18:30 18:45	Fabiana D'Isanto	INNOVATIVE OXIDATION PROTECTIVE COATINGS FOR THERMOELECTRIC MATERIALS	711

S 07 - DIELECTRICS 1 - 11:00-13:00			
Chairs: Jürgen Rödel, Vincenzo Buscaglia			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Ian Reaney *Invited Lecture*	MICROWAVE CERAMICS FOR 5G AND BEYOND	253
11:30 11:45	Kevin Haeuser	LAYERED CERAMIC COMPOSITE SYSTEM FOR APPLICATION AS TEMPERATURE SENSOR	573
11:45 12:00	An-Phuc Hoang	SODIUM BISMUTH TITANATE-BASED HIGH TEMPERATURE CAPACITOR MATERIALS	905
12:00 12:15	Guillaume Riquet	SINTERING MECHANISM, DENSIFICATION AND EXAGGERATE GRAIN GROWTH IN CACU3TI4O12 CERAMICS	246

S 07 - DIELECTRICS 2 - 14:30-16:30			
Chair: Ian Reaney			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Xiaojun Kuang *Invited Lecture*	CATION ORDERING AND PHASE COMPETITION IN BA8M2+M'5+6O24 HEXAGONAL PEROVSKITE TANTALATE AND NIOBATE DIELECTRICS	468
15:00 15:15	Matjaz Spreitzer	THE STRUCTURAL AND DIELECTRIC PROPERTIES OF ANT CERAMICS	870
15:15 15:30	Timo Reinheimer	POLYMERIZABLE CERAMIC INK SYSTEM FOR THIN INKJET PRINTED DIELECTRIC LAYERS	252
15:30 15:45	Ali Hajian	TOWARDS TAILORED POROSIFICATION OF LTCC SUBSTRATES: STUDY OF THE ETCHING PROCESS	570
15:45 16:00	Bjoern Mieller	EVALUATION OF A MULTI-PURPOSE MEASUREMENT CELL FOR STANDARDIZED VOLUME RESISTIVITY MEASUREMENTS AT HIGH TEMPERATURES	883

S 07 - SENSORS & CONDUCTORS - 17:00-19:00			
Chair: Xiaojun Kuang			
Time	**Name**	**Title**	**ID Abs**
17:00 17:15	Benjamin Kaufmann	MICROSCALE ELECTRICAL CHARACTERIZATION AND MODELLING OF THE HIGHLY NON-LINEAR ELECTRICAL BEHAVIOR OF ZNO VARISTOR CERAMICS	897
17:15 17:30	Jean-Marc Tulliani	SOL-GEL SYNTHESIS AND HUMIDITY SENSING FEATURES OF IRON-DOPED SYNTHETIC SEPIOLITE	927
17:30 17:45	Pedro Faia	POROUS SILICON-TIN THIN FILMS FOR HUMIDITY SENSORS DEPOSITED BY RF MAGNETRON SPUTTERING	656
17:45 18:00	Andrea Marchisio	AMMONIA SELECTIVE SENSORS BASED ON COBALT SPINEL PREPARED BY SOLUTION COMBUSTION SYNTHESIS	884
18:00 18:15	Pinar Kaya	TRANSPORT PROPERTIES OF LANIO3-LA2CUO4 HETEROSTRUCTURES	512
18:15 18:30	Fernando Marques	EFFECT OF MICROSTRUCTURE ON THE IONIC TRANSPORT OF MAGNESIA-DOPED PSZ	874
18:30 18:45	Artyom Glukharev	EFFECT OF THE RGO (REDUCED GRAPHENE OXIDE) ADDITION ON CONDUCTIVITY AND MICROSTRUCTURE OF CERAMICS ZRO2-Y2O3 SINTERED USING DIFFERENT TECHNIQUES	911

S 08 - INDUSTRIAL CERAMICS 1 - 11:00-13:00			
Chair: Vicente Sanz			
Time	**Name**	**Title**	**ID Abs**
11:00 11:30	Ferhat Kara *Invited Lecture*	FIRING ENERGY REDUCING MEASURES FOR CERAMIC TILES	517
11:30 11:45	Enrique Sanchez	DETERMINATION OF THERMAL PROPERTIES OF CERAMIC TILES BY LASER FLASH TECNIQUE	397
11:45 12:00	Claudio Cataldi	EFFICIENT USE OF NEPHELINE SYENITE AS A FLUXING AGENT IN INDUSTRIAL CERAMIC FORMULATIONS	222
12:00 12:15	A. Kara	USE OF NEPHELINE SYENITE AS A FLUXING AGENT ON THE SINTERING BEHAVIOR OF THICK PORCELAIN STONEWARE FORMULATIONS	764
12:15 12:30	Sengul Can Genc	INVESTIGATION OF POSSIBLE USE OF THE BIGA PENINSULA (NW ANATOLIA) ZEOLITIC TUFFITES IN PORCELAIN TILE PRODUCTION AS AN ALTERNATIVE FLUXING AGENT	621
12:30 12:45	Chiara Zanelli	CERAMIC RAW MATERIALS IN RWANDA: AN EXPLORATORY STUDY FOR CLAYS AND FELDSPAR	22
12:45 13:00	Roberto Soldati	POWDER RHEOLOGY AND COMPACTION BEHAVIOR OF NOVEL DRY GRANULATES FOR CERAMIC TILES	168

S 08 - INDUSTRIAL CERAMICS 2 - 14:30-16:30			
Chair: Ferhat Kara			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Vicente Sanz *Invited Lecture*	POSITIVE ENVIRONMENTAL IMPACT OF THE CERAMIC INDUSTRIES.	204
15:00 15:15	Jorge Carneiro	DEVELOPMENT OF A COLORED STONEWARE PASTE THROUGH THE VALORIZATION OF AN INDUSTRIAL WASTE	753
15:15 15:30	Sonia Conte	SINTERING BEHAVIOR OF WASTE-BASED PORCELAIN STONEWARE BODIES.	719
15:30 15:45	Michele Dondi	WASTE RECYCLING IN CERAMIC TILES: A TECHNOLOGICAL OUTLOOK	676
15:45 16:00	Jaroslaw Michalek	PRIMARY RESEARCH ON PORCELAIN WASTE UTILISATION	377
16:00 16:30	Alper ömer Yasar	DETERMINATION OF RECYCLING PARAMETERS OF CERAMIC SLUDGE AND ITS USABILITY IN CERAMIC TILE PRODUCTION	35

S 08 - INDUSTRIAL CERAMICS 3 - 17:00-19:00			
Chair: Alpagut Kara			
Time	**Name**	**Title**	**ID Abs**
17:00 17:15	Rosellyne Serewane Deramne	VALORIZATION OF CLAY MATERIALS FROM CENTRAL AFRICAN REPUBLIC (CAR) AND PLANT SKINS WASTE AS SILICATE CERAMICS	190
17:15 17:30	Lvping Fu	ENHANCED CORROSION RESISTANCE BY INTRODUCING NANO-SIZED INTRACRYSTALLINE PORES	639
17:30 17:45	Chiara Molinari	UNDERSTANDING EXPANSION IN LWA PRODUCTION: THE ROLE OF THE GLASSY PHASE	370
17:45 18:00	Elisa Rambaldi	RESIDUAL STRESSES IN CERAMIC SLABS: INDIRECT EVALUATION AND PREVENTION	261
18:00 18:15	Elif Kabakci	INVESTIGATION OF PYROPLASTIC DEFORMATION OF BONE China REFORMULATED WITH NA AND K-FELDSPAR ADDITIVES	521
18:15 18:30	Neslihan Tamsu Selli	DEVELOPMENT OF HIGH PERFORMANCE ANTISLIP COATING SUBSTITUTION TO GLAZE FOR CERAMIC TILES	134
18:30 18:45	Gulden Tok	INVESTIGATING CLEANABILIYTY PERFORMANCE OF DIFFERENT TYPES OF PORCELAIN STONEWARE TILES	116

S 09 - STAINED GLASS, CERAMICS IN CONSTRUCTION AND CULTURAL CONTEXTS 1 - 14:30-16:30			
Chair: Lara Maritan			
Time	**Name**	**Title**	**ID Abs**
14:30 15:00	Márcia Vilarigues *Invited Lecture*	SILVER NANOPARTICLES IN GLASS AND GLAZES - YELLOW STAINS AND LUSTERS	79
15:00 15:15	José Góis	DEVELOPMENT OF A POROUS PORCELAIN FRAPE WITH THERMOCHROMIC VISUALIZATION	609
15:15 15:30	Michael Moore Mr.	CONTROVERSIAL CROCKERY	365
15:30 15:45	Sergio Vicente	CERAMICS PUBLIC ART: A SCULPTURE IN THE FACTORY PRODUCTION ENVIRONMENT, THE NEW PARADIGMS OF UNIVERSITY RESEARCH	83
15:45 16:00	Daniel Albero	APPROACHING MOBILITY THROUGH POTTERY ANALYSIS IN THE BALEARIC ISLANDS DURING THE BRONZE AGE	848
16:00 16:15	Luca Bochicchio	TULLIO D'ALBISOLA BEYOND FUTURISM: CERAMICS ABOVE ALL	796

S 09 - STAINED GLASS, CERAMICS IN CONSTRUCTION AND CULTURAL CONTEXTS 2 - 17:00-18:00			
Chair: Maria Letizia Amadori			
Time	**Name**	**Title**	**ID Abs**
17:00 17:30	Maria-Angeles Villegas *Invited Lecture*	APPROACH TO THE EVOLUTION OF THE HUMAN REPRESENTATION IN THE GLASS SCULPTURE	76
17:30 17:45	Aurore Lambert	DEPICTING THE SOCIAL ORGANIZATION OF ROMAN CERAMIC WORKSHOPS THANKS TO ANCIENT FINGERPRINTS ANALYSIS: THE CASE STUDIES OF POMPEII AND LEZOUX	454
17:45 18:00	Florica Matau	TECHNOLOGICAL INTERPLAY BETWEEN THE PRECUCUTENI AND CUCUTENI POTTERY FROM EASTERN ROMANIA	392

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