

Suggested Program – Symposium I – Engineering Ceramics, Mechanical Behavior and Fractography

Invited and Oral Presentations in Room 3 - Minueto

June 18 th – Monday (morning)		
Time	Ref.	<i>CMCs session</i>
8:30h	09-027 Invited	Novel Hybrid Materials with Added-Value Functionalities for Applications in Extreme Environments Frederic Monteverde ; D. Sciti; L. Zoli; F. Saraga National Research Council of Italy, Italy
9:00h	09-064	The Role of Interfaces in Advanced Ceramic Composites P. Wieceński ¹ ; A. Wieclaw-Midor ¹ ; Jerzy Smolik ² ; H. Garbacz ¹ ¹ Warsaw University of Technology, Poland; ² Institute for Sustainable Technology - National Research Institute, Poland
9:20h	09-124	R-Curve Behavior and Flexural Strength of Zirconia-toughened Alumina and Partially Stabilized Zirconia Composite Laminates D. Blaese ¹ ; T. Benitez ² ; Marcelo Daniel Barros ² ; H. Jelitto ¹ ; N. Travitzky ³ ; D. Hotza ² ; R. Janssen ¹ ¹ Hamburg University of Technology, Germany; ² Federal University of Santa Catarina, Brazil; ³ University of Erlangen-Nuremberg, Germany
9:40h	09-101	Production and Characterization of Alumina-Titania-Yttria Ceramics Composites for Thermal Barrier Aerospace Exhaust System L.T. De Albuquerque; N.L. Gomes; R.A.S. Ferreira; Yogendra Prasad Yadava Federal University of Pernambuco, Brazil
10:00h	09-028 Invited	Thermal Shock Resistance, Wear Behavior and Oxidation Resistance of Silicon Nitride Based Nano-Composites Pavol Sajgalik ¹ ; M. Hnatko ¹ ; Z. Lences ¹ ; J. Dusza ² ; P. Tatarko ¹ ; A. Kovalíková ² ; M. Kašiarová ² ¹ Institute of Inorganic Chemistry SAS, Slovakia; ² Institute of Materials Research SAS, Slovakia
10:30h		Coffee-Break
Time	Ref.	<i>Coatings session</i>
11:00h	09-106	Texture Formation in Alpha-Alumina Coating by Aerosol Deposition Method Makoto Tanaka ¹ ; N. Kawashima ¹ ; S. Kitaoka ¹ ; D. Yokoe ¹ ; T. Kato; M. Hasegawa ² ¹ Japan Fine Ceramics Center, Japan; ² Yokohama National University, Japan
11:20h	09-016	Tribological Behavior of Hydrogenated W-C/a-C:H Coatings Deposited by Different Sputtering Techniques Frantisek Lofaj ¹ ; M. Klich ² ; D. Medved ¹ ; M. Kabatova ¹ ; D. Vana ³ ; J. Dobrovodsky ³ ¹ Institute of Materials Research of SAS, Slovakia; ² Lodz University of Technology, Poland; ³ Slovak Technical University, Slovakia
11:50h		Plenary Talk 1
12:30h		Lunch

June 18 th – Monday (afternoon)		
Time	Ref.	<i>Mechanical behavior session</i>
14:00h	09-121 Invited	Super-strong ZrB₂-based UHTCs at High Temperatures Guo Jun Zhang¹ ; J. Zou ² ; H. Ma ¹ ¹ Donghua University, China; ² University of Birmingham, United Kingdom
14:30h	09-109	Understanding Fracture of Brittle Solids: from Single Crystals to Ceramic Systems Raul Bermejo¹ , M. Gruber ¹ , D. Kiener ² , P. Supancic ^{1,3} , R. Danzer ¹ ¹ Institute of Structural and Functional Ceramics, Montanuniversität Leoben, Austria; ² Erich Schmid Institute of Materials Science, Montanuniversität Leoben, Austria; ³ Materials Center Leoben Forschung GmbH, Austria
14:50h	09-084	Effects of Sintering Additive on the Mechanical Properties of AlN Ceramics A.L. Molisani ¹ , H. Goldenstein ² , Humberto N. Yoshimura³ ¹ St. Andrew Foundation, Brazil; ² University of São Paulo, Brazil; ³ Federal University of ABC, Brazil
15:10h	09-085	Ferroelastic Characterization of LaCoO₃ by Impression Testing Ali Akbari-Fakhrabadi ; O.B. Rodríguez Carreño; V. Meruane University of Chile, Chile
15:30h	09-054	Cavitation Wear of Ceramics under Stream-impact Conditions Zbigniew Pedzich¹ ; M. Ziabka ¹ ; R. Jasionowski ² ¹ AGH - University of Science and Technology, Poland; ² Maritime University of Szczecin, Poland
16:00h		Coffee-Break
Time	Ref.	<i>SPSed ceramics session</i>
16:30h	09-022	Combined Effect of Conductive Phase and Current Pattern on Spark Plasma Sintering of Si₃N₄-based Ceramic Composite Fei Zuo ; H.-T. Lin Guangdong University of Technology, China
16:50h	09-033	Mechanical Properties of Spark Plasma Sintered Aluminum Nitride Ceramic Toshiyuki Nishimura National Institute for Materials Science, Japan
17:10h	09-045	Comminution Influence on Mechanical Properties of NbC Consolidated by Spark Plasma Sintering Ana Julia Oliveira Tertuliano¹ ; G. Boidi ¹ ; I.F. Machado ¹ ; V. Trombini ² ¹ University of São Paulo, Brazil; ² Federal University of ABC, Brazil
17:30h		Poster session

June 19 th – Tuesday (morning)		
Time	Ref.	<i>Transparent ceramics session</i>
8:30h	09-096 Invited	Optical and Luminescent Properties of Translucent YSZ Ceramics Manufactured Using Dry Powder Compaction under Powerful Ultrasound Assistance Oleg L. Khasanov; E. Dvilis; V. Paygin; E. Polissadova; S. Stepanov; D. Valiev; O. Tolkahev Tomsk Polytechnic University, Russia
9:00h	09-095	Optimization of Modes of Spark Plasma Sintering of Transparent MgAl₂O₄ Ceramics Oleg L. Khasanov; E. Dvilis; E. Polissadova; S. Stepanov; D. Valiev; V. Paygin Tomsk Polytechnic University, Russia
9:20h	09-012	Lithium as a Sintering Aid for Producing Dense Transparent Magnesium Aluminate Spinel Lorena Batista Caliman; D. Gouvêa University of São Paulo, Brazil
9:40h	09-119	Zirconia Ceramics for Dental Restorations: Trade-off between Strength, Stability and Translucency Fei Zhang ¹ ; J. Chevalier ² ; J. Vleugels ¹ ; B. van Meerbeek ¹ KU Leuven, Belgium; INSA, Lyon, France
10:00h	09-093 Invited	Fabrication of Transparent Polycrystalline Cubic Silicon Nitride and its Physical Properties Norimasa Nishiyama; F. Wakai Tokyo Institute of Technology, Japan
10:30h		Coffee-Break
Time	Ref.	<i>Nanostructured ceramics session</i>
10:50h	09-067	Surface Segregation of BaO-doped TiO₂ and its Relationship with Nanostability Andre Luiz da Silva; D. Gouvêa University of São Paulo, Brazil
11:10h	09-029 Invited	Improved Toughness in Nanocrystalline Ceramics by Grain Boundary Energy Engineering Ricardo Hauch Ribeiro Castro ¹ ; A. Bokov ¹ ; S. Zhang ¹ ; R. Faller ¹ ; S. Dillon ² ; L. Feng ² ¹ University of California - Davis, USA; ² University of Illinois Urbana-Champaign, USA
11.50h		Plenary Talk 2
12:30h		Lunch

June 19 th – Tuesday (afternoon)		
Time	Ref.	<i>Porous ceramics session</i>
14:00h	09-083 Invited	Grain Boundary Strength in Porous SiC Ceramics Measured Using Microcantilever Beam Specimens Junichi Tatami ¹ ; M. Iijima ¹ ; T. Takahashi ² ; Y. Imoto ¹ ; T. Yahagi ² ¹ Yokohama National University, Japan; ² Kanagawa Industrial Institute of Science and Technology, Japan
14:30h	09-034	Influence of the Carbon Content and the Coking Temperature on the Temperature Dependent Strength of Carbon-bonded Alumina (Al₂O₃-C) Henry Zielke; A. Schmidt; T. Wetzig; M. Abendroth; M. Kuna; C. Aneziris TU Bergakademie Freiberg, Germany
14:50h	09-094	The Influence of the Coarse Grain Fraction on the Microstructure and Effective Thermal Conductivity of Alumina Castables Jens Fruhstorfer; P. Goetze; U. Gross; T. Fieback; C. Aneziris TU Bergakademie Freiberg, Germany
15:10h	09-118	Finite-Element Analyses of the Pressing of Ceramic Components Caiuã Caldeira Melo; R.B. Canto; R.V. Maginador; V.F. Sciuti Federal University of São Carlos, Brazil
15:30h	09-114	The Influence of the Silica Fume Content on the Mechanical Behavior and Fracture Toughness of the Portland Cement Concrete Applied on the Rigid Road Pavement W.S. Silva ¹ ; Joamir Henrique da Silva ² ¹ Federal University of Santa Catarina, Brazil; ² Federal University of Rio Grande do Norte, Brazil
16:00h		Coffee-Break
Time	Ref.	<i>Mechanical behavior of silicate-based ceramics session</i>
16:30h	09-032	Effects of the Addition of Egg Shell in the Mechanical Properties of Sintered Ceramics O.C. Vargens Neto; M.A. Leão; A.R. Conceição; Victor Antunes Silva Barbosa; C. Costa Federal Institute of Bahia, Brazil
16:50h	09-030	Study of Emerald Waste Added to Ceramic Mass for Ceramic Coating Manufacturing Olimpio Baldoino da Costa Vargens Neto; V.A.S. Barbosa; M.A. Leão; O.C. Santos; A.R. Conceição Federal Institute of Bahia, Brazil
17:10h	09-035	Analysis of the Resistance of Adherence of Ceramic Plates, Produced with Different Cycles of Burn, through the Simple and Double Collage E.G.P. Antunes ¹ ; Guilherme Timboni Teixeira ¹ ; A. Wanderlind ¹ ; J.H. Piva ¹ ; A.M. Bernardin ¹ ; H.R. Roman ² ¹ University of the Extreme South Catarinense, Brazil; ² Federal University of Santa Catarina, Brazil
17:30h		Poster session

Suggested Program – Symposium I – Engineering Ceramics, Mechanical Behavior and Fractography
POSTER PRESENTATIONS

Ref.	Poster – June 18 th (Monday) – 17:30-19:00
09-001	A Study of the Compressive Strength and Deformability of Pressed and Burned Blocks of Red Ceramics for Structural Masonry N.A. Cerqueira ¹ ; Afonso Rangel Garcez Azevedo ² ; V.B. Souza ¹ ; J. Alexandre ² ; G.C. Xavier ² ¹ Redentor University Center, Brazil; ² State University of Northern Rio de Janeiro, Brazil
09-004	Effect of the Addition of Refractory Clay in Obtaining Tialite and in Its Physical and Mechanical Properties Vitor Guilherme Oliveira; S.C. Maestrelli; F. Ferraço; C. Del Roveri; C.M. Da Cruz Federal University of Alfenas, Brazil
09-006	Concrete with Addition of Vitreous Residue: Statistical Analysis and Market Employability Carlos Alberto Araújo de Lima ¹ ; M.P.M. Wolff ¹ ; D.R. Freitas ² ¹ Estácio Faculty of São Luís, Brazil; ² Federal Institute of Maranhão, Brazil
09-007	Characterization of Construction Waste and Demolition and Analysis of the Qualities of Concrete Pre-Molded Pieces for Paving of Urban Ways Joyce Tatiani Masselani Francisco; S.R. Teixeira; A.E. Souza São Paulo State University, Brazil
09-014	High Performance Concrete: Technical Relations in Its Production Associated with the Conventional Concrete V.A.S. Junior ¹ ; M.F. Albuquerque ² ; Mônica Molina Moreira ¹ ; J.A. Rocha ¹ ¹ Votuporanga University Center, Brazil; ² São Paulo State University, Brazil
09-018	Study of Erosive Wear by Jet Slurry Erosion of Woka 3653 Coating Tungsten Carbide (86WC-10Co4Cr) Obtained by the HVOF Technique Freddy Galileo Santacruz; C.P. Bergmann; A.S. Takimi Federal University of Rio Grande do Sul, Brazil
09-036	Study of the Effect of Diatom in Physical Properties of Concrete Amanda Regina de Souza Macedo; U.U. Gomes; A.S. Silva; D.S. da Luz Federal University of Rio Grande do Norte, Brazil
09-039	Sintering and Flexural Strength of Zircon (ZrSiO₄) Stabilized Aluminum Titanate (Al₂TiO₅) Ceramics María Agustina Violini; M.S. Conconi; G. Suárez; N.M. Rendtorff Centro de Tecnología de Recursos Minerales y Cerámica, Argentina
09-043	Production of Self-Compacting Concrete with Expanded Clay and Rubber Residue -Lightweight Aggregates Luisa Andreia Gachet-Barbosa; R.C.C. Lintz; A.F. Angelin University of Campinas, Brazil
09-049	Dependence of Tetragonal-ZrO₂ Grain Size on the Bending Strength of Y-TZP Ceramics C. Santos ¹ ; M.F.R.P. Alves ¹ ; I.S. Ferreira ¹ ; Leonardo Queiroz Bueno Campos ¹ ; L.P. Moreira ² ; B.G. Simba ³ ; P.C. da Silva ² ¹ Rio de Janeiro State University, Brazil; ² Fluminense Federal University, Brazil; ³ São Paulo State University, Brazil
09-053	Biaxial Flexural Strength in Y-TZP and Finite Element Simulation (FEM) C. Santos ¹ ; Paula Cipriano da Silva ² ; B.G. Simba ³ ; M.F.R.P. Alves ¹ ; L.P. Moreira ² ; L.Q.B. Campos ¹ ¹ Rio de Janeiro State University, Brazil; ² Fluminense Federal University, Brazil; ³ São Paulo State University, Brazil

09-058	<p>Analysis of the Elastic Modulus of Al₂O₃-Mgo Refractory Concrete During the Hydration Process with Addition of CaCl₂ Raul Everton Sousa; A.E.M. Paiva; R.G. Araujo Federal Institute of Maranhão, Brazil</p>
09-061	<p>Development of Ceramic Cutting Tool for Low-Usability Metals Machining Vânia Trombini; S.F. Santos; D.A. Becker da Silva Federal University of ABC, Brazil</p>
09-063	<p>Effects of Milling Time on Mechanical Properties of Spark Plasma Sintered WC-10wt%Fe₃Al Cermet Luis Antonio Ccopa Ybarra^{1,2}; A. Chimanski²; I.F. Machado³; H.N. Yoshimura² ¹Nove de Julho University, Brazil; ²Federal University of ABC, Brazil; ³University of São Paulo, Brazil</p>
09-066	<p>Dynamic Fatigue of Na₂O-CaO-SiO₂-P₂O₅ and Li₂O-2SiO₂ Glasses Iolanda Justus Dechandt¹; E.D. Zanotto²; F.C. Serbena¹ ¹State University of Ponta Grossa, Brazil; ²Federal University of São Carlos, Brazil</p>
09-072	<p>Synthesis of Niobium Nitride at Low Temperature Rayane Ricardo da Silva; A.L.L. Moriyama; C.P. de Souza Federal University of Rio Grande do Norte, Brazil</p>
09-079	<p>Analysis of the Technical and Environmental Feasibility of a Ceramic Composite (Ceramic Block) Produced with an Incorporation of Kraft Paper Fibers Lailson Ancelmo University Center Uninovafapi, Brazil</p>
09-090	<p>Physical Aspects and Modeling of the Fracture in Rocks and Cementitious Materials Omar Rodriguez-Villarreal Universidad Autonoma de Nuevo León, Mexico</p>
09-097	<p>Non-Destructive Test in Ceramic Coating Using a Prototype for Detection of Pathology Diogo Florencio Pessanha; J. Alexandre; A.R.G. Azevedo State University of Northern Rio de Janeiro, Brazil</p>
09-099	<p>Nanotribology and Nanoindentation Response of WC-Fe₃Al Cermets Prepared by Spark Plasma Sintering Luis Antonio Ccopa Ybarra^{1,2}; A. Chimanski²; H.N. Yoshimura² ¹Nove de Julho University, Brazil; ²Federal University of ABC, Brazil</p>
09-102	<p>Synthesis and Characterization of Alumina-Alumina Fiber Composite as a Component for Armour Application Frank Ferrer Sene; F.C.L. Melo; R.M. Rocha Institute of Aeronautics and Space, Brazil</p>
09-107	<p>Optimization of Green Machining of ZrO₂ Via a Simple and Small CNC Mill Luis Antônio Genova; A.A. Silva Nuclear and Energy Research Institute, Brazil</p>
09-113	<p>Fracture Stress Analysis of Alumina Matrix with Zirconia Nanograins for Space Applications R.L.G. Souza; Daniel Alessander Nono; J.P. Mendes; I.C.F. Silva; M.C.A. Nono National Institute for Space Research, Brazil</p>

09-120	<p align="center">Hybrid Compounds of Pseudo-boehmite and Graphene Oxide Renato Meneghetti Peres¹; A.H. Munhoz Jr¹; L.F. Miranda¹; M.V. Rossi¹; V.X. Nagima¹; F.R. Valenzuela-Diaz²; R. Emilio¹ ¹Mackenzie Presbyterian University, Brazil; ²University of São Paulo, Polytechnic School, Brazil</p>
09-125	<p align="center">Mechanical Behaviour of Zirconia-Toughened Alumina Laminates with or without Y-PSZ Intermediate Layers Marcelo Daniel Barros; P.L. Rachadel; M.C. Fredel; R. Janssen; D. Hotza Federal University of Santa Catarina, Brazil; Hamburg University of Technology, Germany</p>

Ref.	Poster – June 19 th (Tuesday) – 17:30-19:00
09-010	<p align="center">Effect of Granulometry of Glass Powder Used in Partial Replacement to Cement in Concrete Daniele Rodrigues Freitas; A.E.M. Paiva; V.R.C. Silva Federal Institute of Maranhão, Brazil</p>
09-015	<p align="center">Synthetic Latex Influence on Mechanical and Rheological Concrete Properties V.A.S. Junior¹; Maria da Consolação Fonseca Albuquerque²; M.M. Moreira¹; J.A. Rocha¹; J.V. Escremin¹; N.S. Junior¹; C. Pereira¹; M.S. Santos¹ ¹Votuporanga University Center, Brazil; ²São Paulo State University, Brazil</p>
09-019	<p align="center">Influences of Pd Ion Implantation, Surface Polarity, and Active Elements on the Wettability of Al-X/6H-SiC System at 1323 K Z. Huang; T. Wang; X. Zhang; Guiwu Liu; G. Qiao Jiangsu University, China</p>
09-037	<p align="center">Passive Vibration Control Using a Metaconcrete Thin Plate E.J.P. Miranda Jr.^{1,2}; A.F. Angelin¹; Fabiana Maria Silva¹; J.M.C. Dos Santos¹ ¹University of Campinas, Brazil; ²Federal Institute of Maranhão, Brazil</p>
09-040	<p align="center">Mechanical Properties of Lanthanum Silicate Oxyapatite (LSO) Ceramics Ramiro Julián Moreira Toja¹; T. Uchikoshi²; G. Suárez¹; N.M. Rendtorff¹; Y. Sakka²; E.F. Aglietti¹ ¹Centro de Tecnología de Recursos Minerales y Cerámica, Argentina; ²National Institute for Materials Science, Japan</p>
09-044	<p align="center">Mechanical Analysis of Polymeric Composites Reinforced with Bananary Fibers and Copper Benefit Residues Druscilla Mafalda Zaghetti; W.R. El Banna; F.C.C. Lima; P.E.S. Oliveira; E.A.O. da Trindade; L.S.A. Marques Federal University of Pará, Brazil</p>
09-055	<p align="center">Dense Aluminum Borate (Al₁₈B₄O₃₃) Ceramics by Direct Sintering of Milled Powders Gustavo Suárez¹; M.F. Hernandez¹; C. Baudin²; P. Pena²; E.F. Aglietti¹; N.M. Rendtorff¹ ¹Centro de Tecnología de Recursos Minerales y Cerámica, Argentina; ²Instituto de Cerámica y Vidrio, CSIC, Spain</p>
09-059	<p align="center">Effect of Permanence Time at the Maximum Temperature of Sinterization in the Physical-Mechanical Properties of Test Specimens Obtained from Compositions Containing Clays and Aluminum Waste Valmir José Silva; S.K. Taveira; W.P. Gonçalves; H.L. Lira; G.A. Neves; L.N.L. Santana Federal University of Campina Grande, Brazil</p>
09-068	<p align="center">Thermal Analyzes of the Starting Powders and NbC-Ni Cermet with Addition of TiC and W Daniel Ayarroio Seixas¹; H.N. Yoshimura¹; S.F. Santos¹; D. Rodrigues² ¹Federal University of ABC, Brazil; ²BRATS Sintered Filters and Metallic Powders</p>

09-073	<p align="center">Finite Element Models for Analysis of the Influence of Masonry Panels on Multi-Concrete Frames Fabício Balestrin¹; F.A.A. Gomes¹; P.R. Dalcanal¹; C.Z. Valdameri² ¹Federal University of Technology - Paraná, Brazil; ²Paranaense University, Brazil</p>
09-091	<p align="center">Study of Permeable Concrete Rosa Cristina Cecche Lintz; F.B. Canteras; L.A. Gachet-Barbosa; V.F. Silva; I. Teixeira University of Campinas, Brazil</p>
09-108	<p align="center">Effect of the Incorporation of Green Lake Clay in the Property of Impact and Crystallinity of Polypropylene Jorge Nascimento de Sales¹; P.N.S. Poveda¹; R.H.L. Garcia¹; F.R. Valenzuela-Diaz²; L.A. Silva¹ ¹Nuclear and Energy Research Institute, Brazil; ²University of São Paulo, Polytechnic School, Brazil</p>
09-115	<p align="center">Granulometrical Classification Study from the Densimeter Method Geovana Lira Santana; H.S. Ferreira; C.T. Brasileiro; G.A. De Azeredo Federal University of Paraíba, Brazil</p>
09-122	<p align="center">Interdisciplinarity in the Production of Ceramic Artifacts, in the Municipality of Cunha, São Paulo, Brazil W.A. Machado Junior¹; Caio Fernando Da Silva²; B.S.M. Domingos²; R.B. Ribeiro²; A.S. Mello¹ ¹Federal University of Itajubá, Brazil; ²Teresa D'Ávila University Center, Brazil</p>

Ref.	Poster – June 20 th (Wednesday) – 17:30-19:00
09-013	<p align="center">Zirconia-Ceramic Versus Metal-Ceramic: Thermal Expansion Mismatch and Residual Stresses Alice Natsuko Jikihara University of São Paulo, School of Dentistry, Brazil</p>
09-017	<p align="center">Study of Densification by Pressing and Sintering of NaCl and KCl Salts Pedro Augusto Machado Vitor; A.K. Alves; C.P. Bergmann; P.H.F. Santos Federal University of Rio Grande do Sul, Brazil</p>
09-038	<p align="center">Mechanical Description of Gypsum Reinforced with Sisal Fiber A.P. Silva; F.R.S.B. Oliveira; A.F.C. Pereira; N.C. Olivier; Alan Christie Da Silva Dantas Federal University of Vale do São Francisco, Brazil</p>
09-041	<p align="center">Analysis of Microstructural Properties of Concretes Recycled with CDW by X-Ray Diffraction Luisa Andreia Gachet-Barbosa; A.G. Oliveira; J. Candian; M. Vilhena; S.M. Alves; R.C.C. Lintz University of Campinas, Brazil</p>
09-052	<p align="center">Development and Analysis of Recycled Mortar with Total and Partial Replacement of the Sand by Construction and Demolition Residue Leonardo Barga; F.P. Chaves; M.R. Fróis; E.A.P. Reis University Center Antônio Eufrásio de Toledo</p>
09-057	<p align="center">Study of the Effects of CaCl₂ Salt on Hydration of MgO in Aluminous Concrete Raul Everton Sousa; A.E.M. Paiva; R.G. Araujo Federal Institute of Maranhão, Brazil</p>

09-060	<p align="center">Efficiency of Silica Powder Milling in Stirred Media Mill Willian Ferreira Camargo; M.L. Brunatto; R.C.D. Cruz University of Caxias do Sul, Brazil</p>
09-065	<p align="center">Synthesis and Characterization of a WCCoCr/NiCr Nanocomposite Obtained by High Energy Ball Milling Waleska Campos Guaglianoni Federal University of Rio Grande do Sul, Brazil</p>
09-069	<p align="center">A Promising Pathway to Make <i>In Situ</i> Growth of In Nanoparticles: Electron/Laser Irradiation on InP Semiconductor Marcelo Assis¹; E. Longo²; C.C. de Foggi¹; J. Andrés³; G. Minguez-Veja³; E. Cordoncillo³; H. Beltran-Mir³; R. Torres-Mendieta⁴; M.M. Ferrer² ¹Federal University of São Carlos, Brazil; ²São Paulo State University, Brazil; ³Universitat Jaume I, Spain; ⁴University of Liberec, Czech Republic</p>
09-078	<p align="center">Comparative Analysis of Quality and Costs of the Ceramic Tiles Type of Channel Produced and Commercialized in Teresina City - Piauí Lailson Ancelmo University Center Uninovafapi, Brazil</p>
09-089	<p align="center">Quality Evaluation of a Clayey Block for Its Use in the Production of Glazed Ceramic Tiles J. Sanchez¹; A.O. Florez¹; Amanda Lucia Chaparro² ¹Universidad Francisco de Paula Santander, Colombia; ²Universidad de Pamplona, Colombia</p>
09-092	<p align="center">The Use of Alternative Materials in the Production of High Performance Concrete Rosa Cristina Cecche Lintz¹; F.M. Silva¹; L.A. Gachet-Barbosa¹; A.E. Gomes²; J.M.C. Dos Santos¹; E.J.P. Miranda Junior³ ¹University of Campinas, Brazil; ²Federal University of Itajubá, Brazil; ³Federal Institute of Maranhão, Brazil</p>
09-100	<p align="center">Experimental and Theoretical Analysis on Porosity of Fired Clay Bricks Manufactured with Ground Date Pits Nasser Chelouah Université Abderrahmane Mira - Bejaia, Algeria</p>
09-104	<p align="center">Development and Characterization of Ceramic Composites (Al₂O₃-TiO₂) Reinforced with CeO₂ for the Manufacture of Inert Coatings in Metallic Tanks of the Petroleum Industry Noelle D'Emery Gomes Silva; R.O. Domingues; R.A.S. Ferreira; Y.P. Yadava Federal University of Pernambuco, Brazil</p>
09-112	<p align="center">Size Distribution Analysis of Zirconia Grains in Ceramic Composite Microstructure for Space Use Renata Lopes Gonçalves Souza; R.L.G. Souza; J.P. Mendes; I.C.F. Silva; M.C.A. Nono National Institute for Space Research, Brazil</p>
09-116	<p align="center">Study of Stability of Al₂O₃-Y₂O₃-TiO₂ Composite Ceramics in Crude Petroleum Environment for Inert Coating Applications in Petroleum Industry Milena Gonçalves Lima; Y.P. Yadava; R.A.S. Ferreira Federal University of Pernambuco, Brazil</p>
09-123	<p align="center">The Long-Term Stability of Embedded Aluminum Nanoparticles in Glass Janet Callahan Boise State University, USA</p>