

Symposium B

MONDAY OCTOBER 9TH



8:15 – 10:15 A.M. ORAL SESSION B1

Chairperson: Antonio Eduardo Martinelli

Room: LUPATECH S/A

- 8:15 – 9:30 A.M. MODELING OF POWDER METALLURGY PROCESSES – DIE COMPACTION, SINTERING, INJECTION MOLDING, AND PRESSURE-ASSISTED SINTERING. (Invited, B653) Randall German (Mississippi State University, USA)
- 9:30 – 9:45 A.M. PRESSURE DISTRIBUTION DURING POWDER COMPACTION PROCESS (B648). José Daniel Biasoli de Mello (UFU), Aloísio Nelmo Klein (UFSC), Roberto Binder (EMBRACO) and Hazim Ali Al-Qureshi (UFSC)
- 9:45 – 10:00 A.M. THE INFLUENCE OF WORK HARDENING OF PARTICLES ON THE COMPACTION OF METAL POWDER (B515). Marcos Roberto Soares (FRAS-LE), Hazim Ali Al-Qureshi (UFSC) and Aloísio Nelmo Klein (UFSC)
- 10:00 – 10:15 A.M. COMPARATIVE STUDY OF THE EFFECT OF THE DISPERSION OF NBC AND TAC NANOESTRUTURED IN THE SINTERED MICROSTRUCTURE OF THE STAINLESS STEEL 316L. (B582). Uílame Umbelino Gomes (UFRN), Carlson Pereira Souza (UFRN), Leiliane Alves Oliveira (UFRN), Sergio Renato Soares (UFRN) and Marciano Furukava (UFRN) ■



10:15 A.M. - 10:30 A.M. – COFFEE BREAK



10:30 A.M. – 12:30 P.M. – ORAL SESSION B2

Chairperson: Amir Antonio M. de Oliveira

Room: LUPATECH S/A

- 10:30 – 10:45 A.M. METAKAOLIN POZZOLANIC ACTIVITY EVALUATION IN CEMENT PASTES BY NCDTA AND TG (B620). Mônica Leite Lima (UEFS), Washington Almeida Moura (UEFS), Armando Lucas Cunha (EQ/UFRJ), Jo Dweck (EQ/UFRJ) and Jardel Pereira Gonçalves (UEFS)
- 10:45 – 11:00 A.M. POLYCARBOXILATE EFFECT ON THE COMPOSITE SLURRIES RHEOLOGICAL PROPERTIES FOR OIL WELL CEMENTING (B609). Romero G.S. Araújo (Petrobrás), Marcus A.F. Melo (UFRN), Dulce M.A. Melo (UFRN), Antonio E. Martinelli (UFRN), Maria D.M. Paiva (UFRN), Érika P. Marinho (UFPB) and Erica N.M.G. Pinto (UFRN)
- 11:00 – 11:15 A.M. EXPERIMENTAL ANALYSIS OF CYLINDRICAL CLAY BODIES SUBJECTED TO COMPRESSIVE AXIAL LOADING. (B512). Dachamir Hotza (UFSC), Hazim Ali Al-Qureshi (UFSC), Antônio

Pedro Novaes (UFSC), Márcio Celso Fredel (UFSC) and Otávio Urushima Flores (UFSC)

- 11:15 – 11:30 A.M. MICROSTRUCTURAL CHARACTERIZATION OF CLAY ADHERED IN POLYETHYLENE FOR USE IN ADSORPTION PROCESSES OF NATURAL DYES (B535). Ricardo Antonio Francisco Machado (UFSC), Mara Gabriela Novy Quadri (UFSC), Odinei Hess Gonçalves (UFSC), Toni Jefferson Lopes (UFSC) and Marinho Bastos Quadri (UFSC)
- 11:15 – 11:30 A.M. NANOWIRES IN THE Si-C-O BASED CERAMIC COMPOSITES (B549). Inez Valéria Pagotto Yoshida (Inst. Química, UNICAMP) and Evandro Mendes Alexandrino (Inst. Química, UNICAMP)
- 11:30 – 11:45 A.M. PREPARATION OF IRON-ALUMINOSILICATE CATALYSTS BY NON-HYDROLYTIC SOL-GEL ROUTE (B577). Paulo Sérgio Calefi, Katia Jorge Ciuffi, Rafael Alonso Rocha, Rosângela Monteiro Freitas, Eduardo Ferreira Molina, Lucas Alonso Rocha, Bruno Leonardo Caetano, Gustavo Pimenta Ricci and Eduardo José Nassar (all above from Universidade de Franca)
- 11:45 – 12:00 A.M. EFFECTS OF THE POWDER CHARACTERISTICS ON THIN LAYERS FABRICATION VIA DIRECT METAL LASER SINTERING (B629). Frank Petzoldt (IFAM), Carlos Ahrens (UFSC), Haiko Pohl (IFAM) and Bruno de Barros Alcantara (UFSC)

- 12:00 – 12:15 P.M. CONTROL OF THE MORPHOLOGY OF POLYMERIC FOAMS USED AS PRECURSORS OF MACROCELLULAR CERAMICS (B635). , Andrés Rey, Diana Osorio, Jairo Arturo Escobar, Miguel Wenceslao Quintero (all above from Universidade de los Andes), Carlos Rambo (UFSC) and Antonio Pedro Novaes (UFSC), Dachamir Hotza (UFSC).

- 12:15 – 12:30 P.M. QUANTUM CRITICAL BEHAVIOR OF YbFe₂Ge₂ HEAVY FÉRMION (B552). C Geibel (Max Planck Inst), J Ferstl, R Lengsdorf (Univ. Koln), M Abd-Elmeguid (Univ. Koln), Elisa Baggio Saitovitch (CBPF), Magda Fontes (CBPF), Julio Larrea Jimenez (CBPF) and M. Continentino (Univ. Federal Fluminense) ■



12:30 P.M. – 2:00 P.M. – LUNCH



2:00 P.M. – 2:45 P.M. – PLENARY LECTURE

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2:50 – 4:20 P.M. ORAL SESSION B3

Chairperson: Antonio Eduardo Martinelli

Room: LUPATECH S/A

- 2:50 – 3:35 P.M. GLASS-CERAMIC MATERIALS AS SEALANTS FOR SOLID OXIDE FUEL CELL

B

Recent Advances on Powder Technology

- APPLICATIONS. **(Invited, B654)** . Sonja M. Gross (Forschungszentrum Jülich, Germany)
- 3:35 – 3:50 P.M.** SPHERICAL GLASS BODIES WITH CONTROLLED POROSITY BY SINTERING **(B534)**. Dietmar Koch (University of Bremen), Suelen Barg (University of Bremen) and George Grathwohl (University of Bremen)
- 3:50 – 4:05 P.M.** Rh/CeO₂ CATALYST PREPARATION AND CHARACTERIZATION FOR HYDROGEN PRODUCTION BY ETHANOL FOR FUEL CELLS APPLICATIONS **(B551)**. Lisiane Vieira Mattos (INT), Adriana Maria Silva (INT), André Luiz Pinto (IME), Sonia Ramos Vasconcelos (UFRJ), Lídia Oazem Costa (IME), Fabio Bellot Noronha (INT) and Luiz Pizarro Borges (IME)
- 4:05 – 4:20 P.M.** EFFECT OF TUNGSTEN DOPANT ON Ba(Ti_{0.90}Zr_{0.10})O₃ CERAMICS **(B626)**. Alexandre Zirpoli Simões , Francisco Moura , Maria Aparecida Zaghete, Mario Cilense , José Arana Varela and Elson Longo (all above from IQAR-UNESP)
- 4:20 – 4:35 P.M.** NANOSTRUCTURED CERMIUM DIOXIDE PREPARED FROM MONAZITE-CERITE MINERAL WASTE USING SINTERING METHOD AND LEACHING PROCESS **(B646)**. Jean Pierre Dallas (UTV), Christine Leroux (UTV), Uilame Umbelino Gomes (UFRN), Evania Carvalho (UFRN), Carlson Pereira de Souza (UFRN) and Jean Raymond Gavarri (UTV). ■



4:20 P.M. – 4:40 P.M. – COFFEE BREAK



4:40 P.M. – 5:45 P.M. – POSTER SESSION PB1
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5:50 P.M. – 6:35 P.M – PLENARY LECTURE
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TUESDAY OCTOBER 10TH



8:15 A.M. – 10:15 A.M. – ORAL SESSION B4
Chairperson: Hazim Ali Al-Qureshi
Room: LUPATECH S/A

- 8:15 – 8:30 A.M.** MECHANICAL CHARACTERIZATION OF THE MARTENSITIC STAINLESS STEEL AISI 440-C OBTAINED VIA METAL INJECTION MOULDING (MIM) **(B604)**. Waldyr Ristow Jr. (LUPATECH S/A), Ricardo Machado (Stellinject), Matheus Amorim Carvalho (UFSC), Paulo A. Pereira Wendhausen (UFSC) and Gabriel Benedet Dutra (UFSC)
- 8:30 – 8:45 A.M.** PRODUCTION AND CHARACTERIZATION OF SUB MICROMETER HOLLOW Ni-P SPHERES

BY CHEMICAL REDUCTION – THE INFLUENCE OF pH AND AMPHIPHILIC CONCENTRATION **(B520)**. Fernado Lazaro Bernardo (UFSC), Daniel Girardi (UFSC), Valderes Drago (UFSC), Cristian Bernardi (UFSC) and Aloisio Nelmo Klein (UFSC)

8:45 – 9:00 A.M. STUDY OF MECHANISMS OF THE TITANIUM PLASMA SINTERING **(B530)**. Paola Egert (UNISUL), Heloisa R.T. Silva (UNISUL), Carlos Viana Speller (UFSC), Aloisio Nelmo Klein (UFSC), Fabio Angheben Weber (UFSC) and Allan Seeber (UNOESC)

9:00 – 9:15 A.M. BEHAVIOR OF CERAMIC CUTTING TOOLS ON MACHINING CAST IRON IN HIGH SPEED **(B615)**. Olivério M. M. Silva (CTA-AMR), Maria C. A. Nono (INPE), José Vitor Candido Souza (INPE) and Marcos Valério Ribeiro (FEG-UNESP)

9:15 – 9:45 A.M. PERFORMANCE OF PADS PROCESS FOR MIM 316–L SS PROCESSING **(B557)** Machado, R. (LUPATECH S/A), Ristow, W. Jr. (LUPATECH S/A), Alba, P. R. (LUPATECH S/A), Klein, A. N. (UFSC), Wendhausen, P. A. P (UFSC)

9:45 – 10:00 A.M. INFLUENCE OF HYDROGEN ON STRUCTURAL, MAGNETIC AND MAGNETOCALORIC PROPERTIES OF POWDERED Gd₅Si₄H_x COMPOUNDS **(B564)**. Lisandro P. Cardoso (Unicamp), Fabiana Cristina Nascimento (Unicamp), Felipe Fernando R. Gonçalves (UEM), Cesar Canesin Colucci (UEM), Cleber Santiago Alves (UEM), Alexandre Magnus G. Carvalho (Unicamp), Adelino de A. Coelho (Unicamp) and Sergio Gama (Unicamp)

10:00 – 10:15 A.M. MECHANICAL SPECTROSCOPY IN RuSr₂GdCu₂O₈+D **(B633)**. Alcione Roberto Jurelo (UEPG), Carlos Roberto Grandini (UNESP/Bauru), Juliana Maria de A. Gimenez (UNESP/Bauru) and Rogério Dobrzanski (UEPG) ■



10:15 A.M. - 10:30 A.M. – COFFEE BREAK



10:30 A.M. – 13:00 P.M. – ORAL SESSION B5
Chairperson: Antonio Pedro Novaes
Room: LUPATECH S/A

10:30 – 11:15 A.M. CERAMIC OXIDES IN CATALYSIS **(Invited, B655)**. Dulce Maria de Araújo Melo (UFRN)

11:15 – 11:30 A.M. MICROWAVE-ASSISTED HYDROTHERMAL SYNTHESIS OF NANOCRYSTALLINE TiN OXIDE POWDERS **(B517)**. Raluca Savu (LIEC), Ednan Joanni (LIEC), Felipe Ibanhi Pires (LIEC) and Maria Aparecida Zaghete (LIEC)

11:30 – 11:45 A.M. COMBUSTION SYNTHESIS OF NANOMETRIC CuO USING DIFFERENT COMBUSTIBLE-TO-OXIDANT RATIOS **(B544)**. João Marcos Hohemberger, Antônio Shigueaki Takimi, Ana

Paula Beck Leão , Tania Maria Basegio and Carlos Pérez Bergmann (all above from UFRGS)

11:45 – 12:00 A.M. HYDROTHERMAL TREATMENTS FOR THE SYNTHESIS OF FERROELECTRIC AND SEMICONDUCTOR NANOPOWDERS **(B578)**.

Luiz Ferreira de Lima Junior (UFSCar), Luis Gustavo Pagotto Simoes (Nanox), Daniel Tamassia Minozzi (Nanox), André Luis Araujo (Nanox), Edson Roberto Leite (UFSCar), Cristiano Morita Barrado (UFSCar), Caue Ribeiro (UFOP) and Elson Longo (UNESP)

12:00 – 12:15 P.M. OPTIMIZATION STUDY OF LABORATORIAL PROCEEDS OF ALUMINA NANOPARTICULATE SYNTHESIS FOR INDUSTRIAL SCALE APPLICATION **(B634)**.

Nelcy Della Santina Mohallem (UFMG), Juliana Batista Silva (CDTN), Flávio Pereira (UFMG), Tarik Della Santina Mohallem (UFMG) and Fabio freitas (UFMG)

12:15 – 12:30 P.M. MICROSTRAINS DISTRIBUTIONS IN SnO₂ BASED CERAMICS USING THE RIETVELD METHOD AND THE PETER STEPHENS PHENOMENOLOGICAL MODEL **(B583)**.

Carlos Henrique Rossi (UEPG), José Caetano Zurita da Silva (UEPG), Sandra Regina M. Antunes (UEPG), Augusto C. Antunes (UEPG), Diego Mazur (UEPG), Hervê Irion (UEPG) and André Vitor C. de Andrade (UEPG)

12:30 – 12:45 P.M. EVOLUTION OF THE TEXTURAL, STRUCTURAL AND MORPHOLOGICAL PROPERTIES OF TiO₂ WITH TEMPERATURE VARIATIONS **(B562)**.

Maria Terezinha Sansiviero (UFMG), Marcelo Machado Viana (UFMG), Viviane Faria Soares (UFMG), Elton Silverio (UFMG) and Nelcy Della Santina Mohallem (UFMG)

12:45 – 13:00 P.M. MICROWAVE - INDUCED COMBUSTION SYNTHESIS OF Eu AND Tb -DOPED LaAlO₃ POWDERS PHOSPHORS **(B571)**.

Antonio Eduardo Martinelli (UFRN), Dulce Maria de Araújo Melo (UFRN), Bráulio Silva Barros (UFRN), Tatiana Silva Barros (UFCG) and Severino Alves Junior (UFPE) ■



12:30 P.M. – 2:00 P.M – LUNCH



2:00 P.M. – 2:45 P.M – PLENARY LECTURE

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4:20 P.M – 7:20 P.M – POSTER SESSION PB2

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5:50 P.M. – 2:45 P.M – PLENARY LECTURE

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