

Horário	DOMINGO (25/08)	
13h00 – 19h00	(Foyer)	INSCRIÇÕES E RETIRADA DE MATERIAL
15h00 – 17h00	(Salas Hooke, Binning, Bragg)	MINI CURSOS 1, 2, 3
17h00 – 18h30		PLENÁRIA DE ABERTURA Sirius: The New Brazilian Synchrotron Light Source Harry Westfahl Jr. (LNLS - CNPEM, Brazil)
18h30 – 19h30	(Foyer)	COQUETEL, ABERTURA DA EXPOSIÇÃO

Horário	SEGUNDA-FEIRA (26/08)			
09h00 – 10h00	(Sala Ruska) PLENÁRIA I Cryo Soft X-ray Nanotomography for Chemical Elements Detection in Biological Samples José Javier Conesa (ALBA Synchrotron Light Source, Spain) Chair: Wanderley de Souza (CENABIO, UFRJ)			
10h00 – 10h20	COFFEE BREAK / VISITA À EXPOSIÇÃO			
	(Sala Hooke)	(Sala Bragg)	(Sala Ruska)	
	SIMPÓSIO MATERIAIS I Transmission Electron Microscopy and Spectroscopy of Nanostructures and Engineering Materials (Chair: Bráulio Archanjo)	SIMPÓSIO MATERIAIS II Correlative and Optical Microscopy Applications (Chair: Nely Mohallem)	CONFERÊNCIA BIOLOGIA I (Chair: Edilene Oliveira)	
10h20 – 10h40	Recent Technologies in Electron Microscopy for Modern Materials Characterization <i>Rafael Villaurrutia (ThermoFisher Scientific)</i>	Structure and Optical Properties of ZnO Nanoparticles Doped With Transition Metals by Cathodoluminescence <i>Ney Mattoso (UFRJ)</i>	Nanochemical Anatomy of the Osmoregulatory System in Protozoan Parasites <i>Kildare Miranda (CENABIO, UFRJ)</i>	
10h40 – 11h00	Morphological Study of 1D Sodium Niobate Nanostructures - <i>Beatriz Canabaro (UFRJ)</i>			
11h00 – 11h20	Mn5Si3 Nanowire Composition and Crystalline Structure Resolved By TEM <i>Alexsandro da Cruz (Unicamp)</i>	Discrimination of Quartz and Resin Using Convolutional Neural Networks in Optical Microscopy Images of Minerals - <i>Richard Santos(PUC-Rio)</i>		
11h20 – 11h40	Effect of Size on Phase Segregation of Heusler Alloy Nanoparticles Synthesized by Pulsed Laser Deposition <i>Noemi Checca (CBPF)</i>	Development of an Image Analysis System for Automatic Characterization of Sintering Cold Agglomerated <i>Karen Soares Augusto (PUC-Rio)</i>		
11h40 – 12h00	Synthesis and Characterization of NiFe2O4 Nanoparticle for Removal of Dyes in Aqueous Solution <i>Rafael de Souza (UFRJ)</i>	Application of Automated Mineralogical Mapping for Advanced Characterization of Pre-Salt Reservoir Rocks <i>Yaro Parizek (Petrobras – CENPES)</i>		
12h00 – 13h30	ALMOÇO			
13h30 – 14h30	(Sala Ruska) PLENÁRIA II New Developments in EELS at High Energy Resolution: Exploring the Impact of Direct Electron Detectors, Machine Learning on Functional Materials Research Gianluigi Botton (Mc Master University, Canada) Chair: Daniel Lorscheitter Baptista (UFRGS)			
	DESLOCAMENTO			
	(Sala Hooke)	(Sala Bragg)	(Sala Binning)	(Sala Ruska)
	SIMPÓSIO MATERIAIS III Scanning Electron Microscopy, Microanalysis and 3D Techniques (Chair: Wagner Rodrigues)	SIMPÓSIO MATERIAIS IV Analysis and Modification of Materials with Electron and Ion Beams (Chair: Paulo Fichtner)	SIMPÓSIO BIOLOGIA I Scanning Microscopy Using Electrons and Ions (Chair: Marcia Attias)	SIMPÓSIO BIOLOGIA II Dynamic Cell and Molecular Biology (Chair: Manoel Biancardi e Hernandez Carvalho)
14h40 – 15h00	Comparing Quantitative EDS and WDS Using Microanalytical Standards and Interlaboratorial Test Samples - <i>Karla Balzuweit (UFMG)</i>	The Effect of Flux on the Irradiation-induced Precipitation in AISI-316L: an in situ TEM study <i>Ítalo M. Oyarzabal (UFRGS)</i>	Analytical SEM <i>Jim Kilcrease (Hitachi)</i>	Microscopia Vibracional Coerente e Espontânea e Microscopia de Super Resolução <i>Carlos Lenz (UFC)</i>
15h00 – 15h20		Defects Pattern on Monolayer Graphene with High Spatial Frequency Using Helium Ion Microscopy <i>William Silva (INMETRO)</i>	Biomimetic Calcium Phosphate Films Synthesized by Pulsed Laser Deposition for Biomedical Applications <i>Noemi Checca (CBPF)</i>	
15h20 – 15h40	Fabrication of Lignocellulose-Based Microreactors: Copper-Functionalized Bamboo for Continuous-Flow CuAAC Click Reactions - <i>Omar Pandoli (PUC-Rio)</i>	STEM-EDX Analysis of Ion Irradiation-Induced Precipitation In Solution Annealed AISI 316L Alloys <i>Mariana de Mello Timm (UFRGS)</i>	Automated Machine Learning Pipeline Predicts <i>Cryptococcus</i> spp. Capsular Morphotypes in Scanning Electron Microscopy Images <i>William Lopes (UFRGS)</i>	Biogenic Magnetic Nanoparticles, a Novel Tool to Treat Synaptic Deficit Diseases and Glioblastoma <i>Gabriele Vargas Cesar (UFRJ)</i>
15h40 – 16h00	Hematite And Pyrite From Elba Island: From Theory To SEM/EDS Microanalysis - <i>Corinne Arrouvel (UFSCar)</i>	Stability of Ag and Au Nano-objects Under Electron Irradiation <i>Bárbara Konrad (UFRGS)</i>	Structural Characterization of Poly (ε-caprolactone) Nanocapsules through Advanced Techniques of Scanning Electron Microscopy - <i>Thaniele Müller (UFRGS)</i>	The Use Of The Myenteric Neurons Of The Fish As Environmental Impact Biomarker <i>Alexandre Gonçalves (UNESP)</i>
16h00 – 16h20	Characterization of Reduced Graphene Oxide Thin Films Covered by Cu Sputtering by Raman Spectroscopy, SEM and EDS - <i>Andreza Lima (IME)</i>	Synthesis of Silicon Nanostructures in a Quasi-Order Pattern Induced by Ion-Beam <i>Camilla Codeco (UFRJ)</i>	Origin Of Multivesicular Bodies In <i>Giardia intestinalis</i> And Its Behavior During The Parasite Life Cycle <i>Victor Midlej (UFRJ)</i>	Environmental Enrichment Promotes Protection Against the Dissemination of Cocal Virus in the C57BL/6 Mice Central Nervous System - <i>José Antonio Diniz Jr. (IEC)</i>
16h20 – 18h00	(Foyer) SESSÃO DE PÔSTERES (BIO 001 – até BIO 045 / MAT 001 até MAT 051) & COFFEE BREAK			
17h30	(Sala Bragg) REUNIÃO LAB/CENTROS MULTIUSUÁRIOS (FECHADA)			

Horário	TERÇA-FEIRA (27/08)			
09h00 – 10h00	(Sala Ruska) PLENÁRIA III Correlative STEM and SEM Imaging of Nanostructured Materials in a Scanning Electron Microscope Dagmar Gerthsen (Karlsruhe Institute of Technology, Germany) Chair: Jefferson Bettini (LNNano/CNPEM)			
10h00 – 10h20	COFFEE BREAK / VISITA À EXPOSIÇÃO			
	(Sala Hooke)	(Sala Bragg)	(Sala Ruska)	(Sala Binning)
	SIMPÓSIO MATERIAIS V Transmission Electron Microscopy and Spectroscopy of Nanostructures and Engineering Materials (Chair: Paula Jardim)	SIMPÓSIO MATERIAIS VI Scanning Probe Microscopy (SPM) Applications (Chair: Renata Antoun Simao)	SIMPÓSIO BIOLOGIA III TEM and STEM Imaging of Biological Samples (Chair: Eduardo Torres)	SIMPÓSIO BIOLOGIA IV Analytical Electron Microscopy in Biology (Chair: Jacques Werckmann)
10h20 – 10h40	Electron and Ion Microscopes as Tools for Materials Science, Nanoscience and Nanometrology <i>Bráulio Archanjo (INMETRO)</i>	Beyond Imaging <i>Renata Antoun Simao (UFRJ)</i>	Contributions of Transmission Electron Microscopy to the Understanding of Endocrine Deregulation in the Accessory Glands of the Genital System <i>Sebastiao R. Taboga (UNESP)</i>	The Limpet Tooth Revisited: matrix structure, minerals distribution and composition <i>Marcos Farina (UFRJ)</i>
10h40 – 11h00	Spherical Aberration-Corrected Transmission Electron Microscopy for Materials Characterization at the Brazilian Nanotechnology National Laboratory <i>Carlos Alberto Ramirez (LNNano/CNPEM)</i>			
11h00 – 11h20	Studying the Effects of Al-Doping Fe-(Hydr)Oxides on Contaminant Sorption - <i>Erico Freitas (UFMG)</i>	Plasmon-Tunable Tip Pyramid Probes for TERS <i>Thiago L. Vasconcelos (INMETRO)</i>	Histopathological and Ultrastructural Aspects of Cardiac Involvement in Dengue: Contributions of the Murine Model - <i>Gabriela Cardoso Caldas (Fiocruz)</i>	UV-Irradiation of Oocytes for the Induction of Androgenetic Fishes <i>Matheus Pereira (UNESP)</i>
11h20 – 11h40	Fe/O Ratio Determination by EDS and EELS: Effect of Experimental Parameters <i>Douglas Soares da Silva (UNICAMP)</i>	Nanoscale Characterization of Minerals and Organic Matter in Hydrocarbon Source Rocks <i>Douglas Lacerda (PUC-Rio)</i>	Combined Microscopy and Spectroscopy Techniques to Characterize a Fossilized Feather with Minimal Damage to the Specimen - <i>Rodrigo de Carvalho (Jardim Bot., RJ)</i>	Measuring Electron Beam Damage in Proteins Using Electron Energy Loss Spectroscopy <i>Marcelo de Farias (LNNano)</i>
11h40 – 12h00	Analytical Electron Microscopy study of Hydrogen Reduction Synthesis of Nanoparticles of the Ternary CuNiCo Alloy System - <i>Eliana Marin (PUC-Rio)</i>	Characterization of Polymorph by AFM: Surface Properties and its Impact on Dissolution <i>Beatriz Patricio (Farmanguinhos/Fiocruz)</i>	Time-Dependent Evaluation of Ultrastructural and Morphological Alterations Induced by 4-(5'-formyl-[2,2'-bithiophen]-5-yl)but-3-yn-1-yl acetate on Promastigote Forms of <i>Leishmania amazonensis</i> <i>Rayanne Machado (UEM)</i>	Iron and Manganese Minerals Associated to Microalgae and Prokaryotes of the Periphyton of Doce River and Tributaries Affected by Iron Mining Tailings from Collapsed - <i>Carolina Keim (UFRJ)</i>
12h00 – 13h30	ALMOÇO			
13h30 – 14h30	(Sala Ruska) PLENÁRIA IV Atomic Structures of Biological Macro-molecules by Single-Particle Cryo-EM Marin Van Heel (LNNano, Brazil/Leiden Univ., Netherlands/Imperial College London, UK) Chair: Rodrigo Portugal (LNNANO-CNPEM)			
	DESLOCAMENTO			
	(Sala Hooke)	(Sala Bragg)	(Sala Binning)	(Sala Ruska)
	SIMPÓSIO MATERIAIS VII Scanning Electron Microscopy, Microanalysis and 3D Techniques (Chair: Karla Balzuweit)	SIMPÓSIO MATERIAIS VIII Electron Diffraction Mapping in Materials Characterization in SEM and TEM (Chair: Guilherme Zepon)	SIMPÓSIO BIOLOGIA V Miscellaneous (Chair: Marcos Farina)	SIMPÓSIO BIOLOGIA VI Cryo-electron Microscopy and Structural Biology (Chair: Gregory Kitten e Rodrigo Portugal)
14h40 – 15h00	Advanced Image Segmentation by Machine Learning <i>Sidnei Paciornik (PUC-Rio)</i>	Advanced Nanoscale Orientation and Atomic Characterization of Phases in Beta Ti Alloys <i>Conrado Ramos Moreira (UFSCar)</i>	Microscopia de Pinças Óticas e Aplicações em Biologia <i>Bruno Pontes (UFRJ)</i>	Cryo Electron Microscopy: beyond single particle analysis <i>Edson Leite (LNNano/CNPEM)</i>
15h00 – 15h20		Effect of Grain Boundary Character Distribution on δ -phase Precipitation in the Nickel-based Superalloy 718 <i>Flavia Gallo (UFRJ)</i>		
15h20 – 15h40	Deep Learning Segmentation of Strain-Hardening Cement-Based Composites (SHCC) microCT Images <i>Renata Lorenzoni (PUC-Rio)</i>	Retained Austenite Volume Fraction in 52100 Steel Determined by EBSD and Others Correlative Techniques <i>Geronimo Perez (INMETRO)</i>	Morphological Changes in the Intestine of Pufferfish Due to Anthropogenic Pollution: a New Proposal for Environmental Quality Assessment <i>Gabriela Marinsek (UNESP)</i>	Studying Glycosylation Sites of Annelid Hemoglobin by Cryo-EM - <i>Juliana Mello (LNNano/CNPEM)</i>
15h40 – 16h00	Correlative In Situ Analysis on Nanoscale Using AFM in SEM - <i>Ernesto R. Souza (Quantum Design International)</i>	Combining EBSD and CL in a Geological Problem <i>Paola Barbosa (UnB)</i>	Measurements of the Dielectric Constant of a Natural Photonic Crystal by Electric Force Microscopy <i>Wesley Valeriano (UFMG)</i>	Cryo-TEM Study of the Growth and Crystallization Processes of Calcium Phosphate <i>André Rossi (CBPF)</i>
16h00 – 16h20	Structural and Morphological Characterization of BaTiO ₃ /CoFeO ₄ Thin Films Using Scanning and Transmission Electron Microscopies and Atomic Force Microscopy - <i>Nelcy Mohallem (UFMG)</i>	Study of the growth of spicules of calcareous sponges by Transmission Electron Microscopy and Transmission Kikuchi diffraction <i>Jacques Werckmann (CBPF)</i>	Use of Tricology Associated with Electronic Microscopy in the Conservation of Genetic Resources in Sheep in Northeast of Brazil - <i>Luis Rufino (UFC)</i>	Adaptation of Cryogenic System to a Cross Beam Scanning Electron Microscope <i>Vânia Vieira (UFRJ)</i>
16h20 – 18h00	(Foyer) SESSÃO DE PÔSTERES (BIO 046 – até BIO 101 / MAT 052 até MAT 099) & COFFEE BREAK			
17h30	(Sala Hooke) ASSEMBLEIA GERAL DA SBMM			
18h30	CONFRATERNIZAÇÃO Garden Brasa Barra – Av. Lúcio Costa, 6000			

Horário	QUARTA-FEIRA (28/08)				
09h00 – 10h00	PLENÁRIA V Dynamic TEM Developments for Improved Understanding of Reactions and Processes in 2D Materials Angus Kirkland (University of Oxford, UK) Chair: Guillermo Solorzano (PUC-Rio)				
10h00 – 10h20	COFFEE BREAK				
	(Sala Hooke)	(Sala Bragg)	(Sala Binning)	(Sala Ruska)	
	SIMPÓSIO MATERIAIS IX Transmission Electron Microscopy and Spectroscopy of Nanostructures and Engineering Materials (Chair: Luiz Henrique de Almeida)	SIMPÓSIO MATERIAIS X Scanning Probe Microscopy (SPM) Applications (Chair: Rodrigo Prioli)	SIMPÓSIO BIOLOGIA VII Miscellaneous (Chair: Marcos Farina)	SIMPÓSIO BIOLOGIA VIII Sample Preparation (Chair: Marlene Benchmol)	
10h20 – 10h40	In-situ Electron Microscopy Observation of the Redox Process in Plasmonic Heterogeneous-Photo-Sensitive Nanoparticles <i>Jefferson Bettini (LNNano/CNPEM)</i>	Tribomechanical Properties of Single Layer and Multilayer Graphene <i>Rodrigo Prioli (PUC-Rio)</i>	New developments in Atomic Force Microscopy: Diagnosis, Biosensors and Fast Scan Modes <i>Gilberto Weissmuller (UFRJ)</i>	i. Modelos de Cultivo em 3D: Uma Ferramenta para os Estudos de Interação Celular - <i>Carlos Santos (UFRJ)</i> ii. Homemade Adaptations on the Processing of Tissue and Small helminthes - <i>Eduardo Torres (UERJ)</i> iii. Tomografia Eletrônica: uma perspectiva diferente na análise de resultados - <i>Victor Midlej (UFRJ e FIOCRUZ)</i> iv. Devices Produced by 3D Printing for Electron Microscopy Sample Preparation - <i>Lia Coelho (CBPF)</i> v. Scanning Electron Microscopy and Helium Ion Microscopy of the Inner Structure of Trypanosoma cruzi Infected Cells Fixed and Fractured by the OSMIUM-DMSO-OSMIUM Method - <i>Otavio Pacheco (UFRJ)</i> vi. Cryoelectron Microscopy Imaging of whole cells: Preliminary results on freezing protocols applied to Protozoan Parasites - <i>Adélia Lima (UFRJ)</i> vii. Structural Organization of Oscarella (Porifera, Homoscleromorpha) Frozen and Fractured in Absolute Ethanol Observed by High Resolution Scanning Electron Microscopy - <i>Daniele Stillitani (UFRJ)</i> viii. Chemical Modification of Holey Carbon Support Film For Cryogenic Electron Microscopy Using 2-mercaptoethanol - <i>Otávio Berenguel (LNNano/CNPEM)</i>	
10h40 – 11h00					
11h00 – 11h20	TEM Topics: HRTEM Applications <i>Rafael Leal (JEOL)</i>	Scanning Microwave Impedance Microscopy of 2D Layered Materials <i>Gilberto Medeiros (UFMG)</i>	Invasion of Bacteria in Intestinal Tissue Infected with Trichuris muris <i>Dayane Alvarinho de Oliveira (UERJ)</i>		
11h20 – 11h40	In-Situ TEM of Calcium Carbonate Mineralization in The Presence of L-Aspartic <i>Mariana Longuinho (CBPF)</i>	Substrate Influencing Friction of 2D Materials <i>Thiago Gonzalez-Llana Brito (UFRJ)</i>	Behavior of Osteoblasts onto Topographically Designed Scaffolds in vitro <i>Rafaela S. dos Santos (UFRJ)</i>		
11h40 – 12h00	Structural Investigation of Hydrothermally Synthesized Iron Oxide Quantum dots <i>Naga Vishnu (LNNano/CNPEM)</i>	The Sliding of Single Asperities in Graphene <i>Felipe Ptak Lemos (PUC-Rio)</i>	Lack of Two Independent Physiological Regulators Impacts the Ultrastructure of <i>Cryptococcus gatti</i> <i>Beatriz Santana Borges (FioCruz-PR)</i>		
12h00 – 13h30	ALMOÇO				
13h30 – 14h30	PLENÁRIA VI Characterizing the Structure and Functionality of Organic Matrices of Mineralised Tissues Using Cryo-Electron Microscopy Fabio Nudelman (University of Edinburgh, UK) Chair: Marcos Farina (IBCCF, UFRJ)				
	DESLOCAMENTO				
	(Sala Hooke)	(Sala Bragg)	(Sala Ruska)		
	SIMPÓSIO MATERIAIS XI Scanning Electron Microscopy, Microanalysis and 3D Techniques (Chair: Thiago Vasconcelos)	SIMPÓSIO MATERIAIS XII Transmission Electron Microscopy and Spectroscopy of Nanostructures and Engineering Materials (Chair: Conrado Afonso)	CONFERÊNCIA BIOLOGIA II (Chair: André Rossi e Marco Guimarães)		
14h40 – 15h00	Morphology Effect on the Capacitive Properties of Manganese Oxide Nanostructures Prepared by Pulsed Laser Deposition - <i>Yutao Xing (UFF)</i>	Microstructural Investigation of the Magnetic Behaviour of a Heat-Resistant Cast Austenitic Stainless Steel <i>Jean Dille (Univ. Libre de Bruxelles/UFRJ)</i>	Origin of the Nervous System Herch Moysés Nussenzevig (UFRJ) Infabric: towards a subcellular and dynamic cell biology Hernandes Carvalho (UNICAMP)		
15h00 – 15h20					Characterization of Ceramic Materials Coated with Nanostructured Diamond by Microscopy Techniques <i>Rodrigo Pinto (INMETRO)</i>
15h20 – 15h40	Characterization of Nanosized Hydroxyapatite and Hydrogel Composite for Biomaterials Applications <i>Luiza Braga Ferreira dos Santos (IME)</i>	Spray-forming of Al-matrix Composite Reinforced with Quasicrystals <i>Guilherme Zepon (UFSCar)</i>			
15h40 – 16h00	Ultra-High Conductive Hollow Channels Guided By Bamboo Bio-Template For Electric And Electrochemical Devices - <i>Omar Pandoli (PUC-Rio)</i>	Study Of Y Addition Effect on Microstructure Of Nickel-based Alloy 718 <i>Rosa Silveira (UFRJ)</i>			
16h00 – 16h20	Morphological Characterization of Corrosion Products of Guyed Transmission Towers Anchor Rods <i>Bruna Dias (Lactec - Estruturas Civis)</i>	Diffraction Contrast and Analytical Electron Microscopy of Multi-Phases GB Precipitation Phenomena in a Cr-Fe-Ni Alloy - <i>Julio Spadotto (PUC-Rio)</i>			
16h20 – 16h30	ENCERRAMENTO				