

Nº Pôster	RELAÇÃO DOS TRABALHOS APRESENTADOS
01	<b>Oswaldo Sala e o desenvolvimento da espectroscopia Raman no Brasil e na América Latina</b> Dalva L. A. de Faria (PQ), Marcia L. A. Temperini (PQ)
02	<b>Raman and FTIR spectra in nanoemulsion from <i>Carapa guianensis</i> Aubl. oil</b> Quesle S. Martins(PQ) <sup>1*</sup> , Laffert G.F. Silva(PQ) <sup>2</sup> , Roberta L. Cristina(IC) <sup>1</sup> , Asaf Ribas(IC) <sup>1</sup> , Duílio L.L. de Oliveira(IC) <sup>1</sup>
03	<b>Raman em óleo de castanha-do-Brasil: introdução ao estudo de ácidos graxos</b> Roberta L. Cristina (IC) <sup>1*</sup> , Asaf Ribas(IC) <sup>1</sup> , Duílio L.L. de Oliveira(IC) <sup>1</sup> , Quesle S. Martins (PQ) <sup>1</sup>
04	<b>DFT em glicerol: Introdução a espectroscopia vibracional e análise conformacional</b> Duílio L.L. de Oliveira (IC) <sup>1*</sup> , Roberta L. Cristina (IC) <sup>1</sup> , Asaf Ribas(IC) <sup>1</sup> , Quesle S. Martins (PQ) <sup>1</sup>
05	<b>Espectroscopia Raman e Infravermelho aplicados a estudo de grupos carboxílicos de óleo vegetal</b> Asaf Ribas (IC) <sup>1*</sup> , Roberta L. Cristina (IC) <sup>1</sup> , Duílio L.L. de Oliveira <sup>1</sup> , Quesle S. Martins (PQ) <sup>1</sup>
06	<b>Raman spectroscopy applied to the study of Pterosaur bone from the Cretaceous of Bauru Basin, South – Brazil</b> Wemerson J. Alencar (PG) <sup>1*</sup> , João H. da Silva (PQ) <sup>2</sup> , Renan A.M. Bantim (PQ) <sup>3</sup> , Luiz C. Weinchultz (PQ) <sup>4</sup> , Alexander W. A. Kellner (PQ) <sup>5</sup> , João H. Z. Ricetti (PQ) <sup>4</sup> José A.S. da Silva (PG) <sup>1</sup> , Anupama Ghosh (PQ) <sup>1</sup> , Thiago A. de Moura (PG) <sup>1</sup> , Paulo T.C. Freire (PQ) <sup>1</sup>
08	<b>Raman spectroscopy, XRF, SEM-EDS and powder X-ray diffraction characterization of Amazonian indigenous archaeological ceramics</b> Gerson A. C. Lopes (PG) <sup>1,2*</sup> , Javier A. Ellena (PQ) <sup>1</sup> , Kléber O. Souza (PQ) <sup>3</sup> , Daniel Atencio (PQ) <sup>4</sup> , Marcelo B. Andrade (PQ) <sup>1</sup> .
09	<b>Uso combinado de Microscopia Raman e SEM-EDS na análise de obras de arte: Independência ou morte!</b> Isabela F. S. dos Santos (PQ) <sup>1*</sup> , Yara L. M. M. Petrella (PQ) <sup>1</sup> , Dalva L. A. de Faria (PQ) <sup>2</sup>
11	<b>From micro to nano Raman: new developments in the detection of micro and nanoplastics of marine origin from the Amazon basin to Santos</b> Niklaus Wetter (PQ) <sup>1*</sup> , Anderson Z. Freitas (PQ) <sup>1</sup> , Allan Berezcki (PG) <sup>1</sup> , Diego R.C. Pascoal (PG) <sup>1</sup> , Jessica Dipold (PG) <sup>1</sup> , Duclerc Parra (PQ) <sup>1</sup> , Wagner Rossi (PQ) <sup>1</sup> , Fernanda V. Cabral (PG) <sup>1</sup> , Martha S. Ribeiro (PQ)
12	<b>Determinação de sulfato em águas marinhas por espectroscopia Raman</b> Elisa M. B. Santos (PG) <sup>*</sup> , Nilvan A. da Silva (PG), Ivo M. Raimundo Jr. (PQ)
13	<b>Determinação de benzeno e tolueno em águas por espectroscopia Raman</b> Augusto F. S. de Oliveira (PG) <sup>*</sup> , Jarbas J. R. Rohwedder (PQ), Ivo M. Raimundo Jr. (PQ)
14	<b>Raman spectroscopy and chemometrics to discriminate oxidative processes of biodiesel.</b> Maycom Cezar Valeriano <sup>a*</sup> , Antônio Carlos Ferreira Batista <sup>b</sup> , Mónica Benicia Mamián-López <sup>a</sup>
15	<b>Is your transfusion free of Microplastics?: Identification of emerging contaminants in blood by Raman Spectroscopy</b> Bianca C. S. Miara Osatchuk (PG) <sup>1</sup> , Gabriel Staichak (PG) <sup>2</sup> , Augusto L. Ferreira Jr (PG) <sup>3</sup> , Bruno R. Cruz (PQ) <sup>4,5</sup> , Andressa Novatski (PQ) <sup>1,6*</sup> , Susete W. Christo (PQ) <sup>2,7</sup> , Giovani M. Favero (PQ) <sup>1,7**</sup>
16	<b>Micro-Raman spectroscopy for identification of microplastics in the São Vicente estuarine</b> Allan Berezcki (PG) <sup>1*</sup> , Diego R.C. Pascoal (PG) <sup>1</sup> , Jessica Dipold (PG), Giovana Teixeira Gimiliani (PG) <sup>1</sup> , Duclerc Fernandes Parra (PQ) <sup>1</sup> , Anderson Z. Freitas (PQ) <sup>1</sup> , Niklaus Wetter (PQ) <sup>1</sup>
17	<b>Piperine-loaded polymeric microparticles by Eudragit RS30D and S100: Raman spectroscopy characterization.</b> Andressa Novatski (PQ) <sup>1</sup> , Patricia Biscaia (PG) <sup>2</sup> , Guilherme Camargo (PQ) <sup>2</sup> , Jaqueline Gunha (PG) <sup>1</sup> , Daniele Dias (PQ) <sup>3</sup> Jéssica Nadal (PQ) <sup>2</sup> .

18	<b>Efeitos da radiação no mineral zircão via espectroscopia Raman.</b> Antonio S. W. Sales (PG) <sup>1*</sup> , Luís R. Gentil (IC) <sup>1</sup> , Thaís A. Janolla (PG) <sup>1</sup> , Sandro G. Oliveira (PQ) <sup>2</sup> , Airton N. C. Dias (PQ) <sup>1</sup> .
19	<b>Micro-Raman spectroscopy characterization of dental pulp stem cells differentiation induced by calcium phosphate nanoparticles</b> Flavia R. O. Silva (PQ) <sup>1</sup> , Diego R. C. Pascoal (PG) <sup>1*</sup> , Allan Berezcki (PG) <sup>1</sup> , Carla Renata Sipert (PQ) <sup>2</sup> , Roberto Ruggiero Braga (PQ) <sup>2</sup> , Maria Helena Bellini(PQ) <sup>1</sup> , Luis Felipe Teixeira da Silva (PG) <sup>1</sup> , Anderson Z. Freitas (PQ) <sup>1</sup> , Niklaus U. Wetter (PQ) <sup>1</sup>
20	<b>Síntese e caracterização dos coacervatos de cálcio e seus produtos de decomposição térmica.</b> Thaís L. Oliveira (PG), <sup>1*</sup> Maurício A. P. Silva (PQ) <sup>1</sup> , Patrick Carvalho (IC), Luiz Fernando C. Oliveira (PQ) <sup>1</sup>
21	<b>Síntese e caracterização de coacervatos com ácido telúrico.</b> Thaís L. Oliveira (PG), <sup>1*</sup> Patrick S. de Carvalho (IC), Maurício A. P. Silva (PQ) <sup>1</sup> , Luiz Fernando C. de Oliveira (PQ) <sup>1</sup> .
22	<b>Revisiting Raman Spectra of Some Mineral Carbonates</b> Julliana F. Alves (PG), <sup>1*</sup> Luiz F.C. de Oliveira. (PQ)
23	<b>Eletrochemical SERS study of Thiram on gold nanoparticles</b> Ana Luiza Clivatti Yamanaka (IC), <sup>1</sup> Mari Ferreira Nicolas (PG), <sup>1</sup> Clara de Jesus Rangel (PG) , <sup>1</sup> Rômulo Augusto Ando (PQ), <sup>1*</sup>
24	<b>Synthesis of Gold Nanoparticles in Ionic Liquids: SERS identification of the molecular species on the metallic surface</b> Mari Ferreira Nicolas (PG), Rômulo Augusto Ando (PQ)*
25	<b>3D-printer microfluidic system for Gold Nanostructures deposition onto Si substrate used as SERS substrates for detecting of Triamterene molecule</b> Anerise de Barros (PQ), <sup>1,*</sup> Cleber S. Torres, <sup>1</sup> Igor Fier (PQ), <sup>2</sup> Maria L. Braunger (PQ), <sup>3</sup> Varlei Rodrigues (PQ), <sup>4</sup> Fernando A.Sigoli(PQ), <sup>1</sup> Italo O. Mazali (PQ), <sup>1,*</sup>
26	<b>Au nanostars as inkjet printing SERS substrate for the detection of molecules of biological and environmental interest</b> Edison H. Montoya (PG) * <sup>1</sup> , Lucas F. Oliveira Fernando <sup>1</sup> , A. Sigoli (PQ) <sup>1</sup> , Italo O. Mazali (PQ) <sup>1</sup>
27	<b>Gold nanoparticles-conjugated magnetic nanoparticles for SERS analysis of dopamine</b> Celina M. Miyazaki (PQ), <sup>1,*</sup> Cibely S. Martin (PQ), <sup>1</sup> Aldo E. Job (PQ), <sup>1</sup> Carlos J.L. Constantino (PQ), <sup>1</sup>
28	<b>Paraquat detection by SERS using the standard addition method</b> Cibely S. Martin (PQ)*, Marcelo J. Oliveira (PG), Carlos J.L. Constantino (PQ)
29	<b>Drug delivery of fluconazole by AgNP for <i>in vitro</i> combat of <i>Candida spp.</i> investigated through SERS spectroscopy</b> Daphne Fonseca de Coppoli Lanferini (PG), <sup>1,*</sup> Antonio Carlos Sant'Ana (PQ), <sup>1</sup> Francis Moreira Borges (PQ) <sup>2</sup>
30	<b>SERS monitoring of the photocatalytic degradation of the fungicide Tebuconazole by hybrid catalyst AgNP/TiO<sub>2</sub></b> Rafael de Oliveira (PG), <sup>1*</sup> Antonio Carlos Sant'Ana (PQ), <sup>1</sup>
31	<b>Inclusion Complexes for the Detection of Pesticides by SERS Spectroscopy</b> Maelly A. Oliveira (IC), Clara J. Rangel (PG), Mari F. Nicolas (PG), Rômulo A. Ando (PQ)*
32	<b>Investigação SERS do inseticida fosmete em superfícies de Ag e Au</b> Larissa A. B. Ferreira (IC), Clara de Jesus Rangel (PG), Mari F. Nicolas (PG), Rômulo A. Ando (PQ)*
33	<b>Silicon microchannel-driven Raman scattering enhancement to improved gold nanorod functions as a SERS substrate toward single molecule detection of R6G and Thiram</b> Jacira Bär (PG), <sup>1</sup> Anerise de Barros (PQ), <sup>1*</sup> Davi H. S. de Camargo (PQ), <sup>2</sup> Mariane P. Pereira (PQ), <sup>3</sup> Leandro Mercês (PQ), <sup>3</sup> Flavio M. Shimizu (PQ), <sup>3</sup> Fernando A. Sigoli(PQ), <sup>1</sup> Carlos C. B. Bufon (PQ), <sup>2</sup> Italo O. Mazali (PQ), <sup>1,*</sup>
34	<b>Dynamic behavior of surface-enhanced Raman spectra for rhodamine 6G interacting with gold nanorods: implication for analysis under wet versus dry conditions</b> Anerise de Barros (PQ), <sup>1,*</sup> Flavio M. Shimizu (PQ), <sup>2,3</sup> Cristine S. de Oliveira (PQ), <sup>1</sup> Fernando A. Sigoli (PQ), <sup>4</sup> Diego Pereira dos Santos (PQ), <sup>1</sup> Italo O. Mazali (PQ), <sup>1,*</sup>

35	<b>SERS detection of acephate pesticide degradation product: methamidophos</b> Maíza S. Ozório* (PQ), Rafael J. G. Rubira (PQ), Cibely S. Martin (PQ), Luis F. C. Morato (PG) and Carlos J. L. Constantino (PQ)
36	<b>Surface-enhanced Raman Scattering (SERS) Technique Applied in the Quantitative Analysis of Pesticide Detection</b> Marcelo J.S. Oliveira (PG) <sup>1*</sup> , Rafael J.G. Rubira (PQ) <sup>1</sup> , Leonardo N. Furini (PQ) <sup>2</sup> , Augusto Batagin-Neto (PQ) <sup>3</sup> , Carlos J.L. Constantino (PQ) <sup>1</sup>
37	<b>Gold/bohemite substrates for SERS detection of hepcidin in saliva for fast hyperinflammation screening</b> Carla Carolina Silva Bandeira (PG) <sup>1,*</sup> , Julián M. Rayo Alape (PG) <sup>1</sup> , Herculano da Silva Martinho (PQ) <sup>1</sup>
39	<b>Development of a biosensor based on AuNP/PS-b-P2VP thin film</b> Moyra F. Vieira (PG) <sup>1,*</sup> , Bismark N. da Silva (PG) <sup>1</sup> , Bruno G. da Fonseca (PG) <sup>2</sup> , Alexandre G. Brolo (PQ) <sup>2</sup> , Celly M. S. Izumi (PQ) <sup>1</sup>
40	<b>Au nanoparticles prepared on PANI thin films for SERS application</b> Bismark N. da Silva (PG) <sup>1*</sup> , Moyra F. Vieira (PG) <sup>1</sup> , Rodrigo A. Dias (PQ) <sup>2</sup> , Celly M. S. Izumi (PQ) <sup>1</sup> .
41	<b>High-level Multiconfigurational Simulation of Resonant Raman and SERRS of a Tunable Thiadiazole Organic Dye</b> Adalberto V. S. de Araújo (PD)*, Clara J. Rangel (PG), Rômulo A. Ando (PQ)
42	<b>A Metal Based SERS Sensor for Nitric Oxide</b> Jayr H. Marin (PG), Leandro R. Marques (PG), Rômulo A. Ando (PQ)*
43	<b>Detection of Atrazine herbicide through the SERS effect: evaluation of the influence of gold nanorods (AuNRs) on silicon substrate with V shaped microchannels in intensification of Raman peaks.</b> Matheus G. Ferreira (PG) <sup>1,*</sup> , Anerise de Barros (PQ) <sup>1</sup> , Davi H. S. Camargo (PQ) <sup>2</sup> , Carlos C. B. Bufon (PQ) <sup>2</sup> , Fernando A. Sigoli (PQ) <sup>1</sup> , Italo O. Mazali (PQ) <sup>1</sup>
44	<b>Desenvolvimento de sensor SERS indireto para detecção de Hg atmosférico</b> Deysiane A. L. dos Santos (PG) <sup>1*</sup> , Anerise de Barros (PQ) <sup>1</sup> , Fernando A. Sigoli (PQ) <sup>1</sup> , Italo O. Mazali (PQ) <sup>1*</sup>
45	<b>Paper-based SERS substrate applied to the detection of acephate pesticide</b> Grazielle O. Setti (PQ)*, Maíza da S. Ozório (PQ), Rafael J. G. Rubira (PQ), Carlos J.L. Constantino (PQ).
46	<b>Detection of carbendazim by SERS using Ag colloid: a comparison of portable and benchtop Raman equipment</b> Tatiana A. Oliveira (PG), Isabela B. Carvalho (IC), Grazielle O. Setti (PQ), Carlos J.L. Constantino (PQ).
47	<b>Direct detection of SARS-CoV-2 antigen based on surface-enhanced Raman scattering (SERS) using machine learning</b> Wallance M. Pazin (PQ) <sup>1</sup> , Leonardo N. Furini (PQ) <sup>2</sup> , Daniel C. Braz (PQ) <sup>3,4</sup> , Mário P. Neto (PQ) <sup>5,6</sup> , José D. Fernandes (PQ) <sup>7</sup> , Carlos J.L. Constantino (PQ) <sup>7</sup> , Osvaldo N. Oliveira Jr (PQ) <sup>3</sup>
48	<b>Ultrasensitive SERS immunoassay for stress biomarker monitoring in biological fluids</b> Javier E.L. Villa (PQ) <sup>1,*</sup> , Maria D.P.T. Sotomayor (PQ) <sup>2</sup> , Luis M. Liz-Marzán (PQ) <sup>3</sup>
49	<b>KNO<sub>3</sub> mediated aggregation of silver nanoparticles for SERS detection of the fungicide carbendazim</b> Isabela B. Carvalho* (IC), Cibely S. Martin (PQ), Tatiana A. de Oliveira (PG), Marcelo J.S. Oliveira (PG), Carlos J.L. Constantino (PQ).
50	<b>Detection of thiabendazole pesticide in matrix of food by surface-enhanced Raman scattering (SERS)</b> Marcelo J.S. Oliveira (PG) <sup>1</sup> , Rafael J.G. Rubira (PQ) <sup>1</sup> , Augusto Batagin-Neto (PQ) <sup>2</sup> , Carlos E.M. de Campos (PQ) <sup>3</sup> , Carlos J.L. Constantino (PQ) <sup>1</sup> , Leonardo N. Furini (PQ) <sup>3</sup>
51	<b>Silver nanocubes SERS substrate: a possibility of plasmon-mediated reactions using SERS</b> Adriana Santinon (PG) <sup>1</sup> , Italo Odone Mazali (PQ) <sup>1</sup> , Alexandre Guimarães Brolo (PQ) <sup>2</sup> , Diego Pereira dos Santos (PQ) <sup>1,*</sup>
52	<b>SM-SERS spectra of 4-mercaptobenzoic on H-bonds induced hot spots in acidic medium.</b> Flávia C. Marques (PG) <sup>1</sup> , Raísa S. Alves (PG) <sup>2</sup> , Diego P. dos Santos (PQ) <sup>2</sup> , Gustavo F. S. Andrade (PQ) <sup>1,*</sup>

53	<b>In-situ Raman photocatalysis mediated by NIR radiation: coupling NaREF<sub>4</sub> upconversion nanoparticles with plasmonic Au nanoparticles</b> Gesiane P. de Sousa (PG) <sup>1,*</sup> , Anerise de Barros (PQ) <sup>1</sup> , Flávio M. Shimizu (PQ) <sup>2,3</sup> , Fernando A. Sigoli (PQ) <sup>1</sup> , Italo O. Mazali (PQ) <sup>1</sup>
54	<b>Investigação Raman Ressonante de uma sonda de ligação de hidrogênio em líquidos iônicos</b> Beatriz R. de Moraes (PG), Leandro R. Marques (PG), Rômulo A. Ando (PQ)*
55	<b>Solventes eutéticos profundos baseados em alcanolaminas para captura de CO<sub>2</sub></b> Pedro H. P. Sabanay (IC), Giovanni R. Morselli (PG), Rômulo A. Ando (PQ)*
57	<b>Kinetic study of the devitrification process of an ionic liquid using MCR-ALS hard-modeling and low-frequency Raman spectroscopy.</b> Mónica Benicia Mamián-López (PQ), <sup>1</sup> Vitor H. Paschoal (PQ), <sup>2,*</sup> Mauro Carlos Costa Ribeiro (PQ) <sup>2</sup>
58	<b>Espectroscopia vibracional e reologia de solventes eutéticos profundos baseados em ureia e sais de colina</b> Ícaro F. T. de Souza (PG) <sup>1,*</sup> , Mauro C. C. Ribeiro (PQ) <sup>1</sup>
59	<b>Porous liquids of ZIF-67 with gemini ionic liquids based on benzylammonium acetate for CO<sub>2</sub> adsorption.</b> Ahmed D. Páez (PG), <sup>1</sup> Nicolas Keppeler (PG), <sup>2</sup> Omar A. El Seoud (PQ), <sup>2</sup> Rômulo A. Ando (PQ) <sup>1,*</sup> .
60	<b>Tetraalkylammonium Chlorides Based Deep Eutectic Solvents for SO<sub>2</sub> Capture</b> Giovanni R. Morselli (PG) <sup>1,2</sup> , Pedro H. P. Sabanay (IC), <sup>1</sup> Rômulo A. Ando (PQ) <sup>1,2,*</sup>
61	<b>Investigação <i>in situ</i> por espectroscopia Raman da formação de vacâncias de oxigênio na estrutura do óxido de cério (IV) durante reduções catalíticas em fase gasosa</b> Gustavo D. L. de Andrade (IC) <sup>1,*</sup> , Fernando A. Sigoli <sup>1</sup> , Italo O. Mazali (PQ) <sup>1</sup>
62	<b>In-situ monitoring of crystalline transformation of NaREF<sub>4</sub> from cubic to hexagonal using Raman Spectroscopy</b> Gesiane P. de Sousa (PG) <sup>1</sup> , Anerise de Barros (PQ) <sup>1</sup> , Claudia M. S. Calado (PQ) <sup>1</sup> , William M. Oliva (PG) <sup>1,*</sup> , Nagyla A. de Oliveira (PG) <sup>1</sup> , Sérgio F. N. Coelho (PG) <sup>1</sup> , Fernando A. Sigoli (PQ) <sup>1</sup> , Italo O. Mazali (PQ) <sup>1</sup>
63	<b>Influence of Ag nanoparticles in waveguides on doped germanate glasses</b> Camila D. S. Bordon (PG) <sup>1</sup> , Jessica Dipold (PG) <sup>2,*</sup> , Wagner de Rossi (PQ) <sup>2</sup> , Anderson Z. Freitas (PQ) <sup>2</sup> , Luciana R. P. Kassab (PQ) <sup>3</sup> , Niklaus U. Wetter (PQ) <sup>2</sup>
64	<b>Raman gain coefficient of Sm<sup>3+</sup> ions doped tellurite glasses</b> Jaqueline V. Gunha (PG) <sup>1,*</sup> , Robson F. Muniz (PQ) <sup>2</sup> , Aloisi Somer (PQ) <sup>1</sup> , Daniele T. Dias (PQ) <sup>3</sup> , Raouf El-Mallawany (PQ) <sup>4</sup> , Carlos Jacinto (PQ) <sup>5</sup> , Nelson G. C. Astrath (PQ) <sup>6</sup> , Andressa Novatski (PQ) <sup>1</sup>
65	<b>PbO.SiO<sub>2</sub> glass under high pressure: ex-situ and in-situ Raman analysis</b> Rafaella B. Pena <sup>1*</sup> , Veronic Laurentz (PG) Elodie Rameo <sup>2</sup> (PG), Thierry Deschamps <sup>2</sup> (PQ), Christine Martinet <sup>2</sup> (PQ), Adalberto Picinin <sup>1</sup> (PQ), Paulo S. Pizani <sup>1</sup> (PQ), <sup>1</sup>
66	<b>SYNTHESIS AND CHARACTERIZATION OF MoO<sub>2</sub> NANOPARTICLES</b> Hilton B. da Silva (IC), <sup>1,*</sup> Gilberto D. Saraiva (PQ), <sup>1</sup> Aline Alves de Freitas (IC), <sup>1</sup> Raí F. Jucá (IC), <sup>1</sup> Joel R. de Castro (PQ), <sup>2</sup> Alessandra Alexandrino Aquino <sup>1</sup> .
67	<b>Transition of ferroelastic nature observed in double perovskite Cs<sub>2</sub>AgBiBr<sub>6</sub> through Raman Spectroscopy</b> Fabio E. O. Medeiros* (PG) <sup>1</sup> , Laura M. T. Vidal (PG) <sup>2</sup> , Alejandro P. Ayala (PQ) <sup>1</sup>
68	<b>Investigação no Espectro Vibracional de Compostos SrTiO<sub>3-δ</sub></b> Natália Pincelli Westin* (IC), <sup>1</sup> Eduardo Granado Monteiro da Silva (PQ) <sup>1</sup> , Rodolfo Tartaglia Souza (PG) <sup>1</sup> , Felipe Souza Oliveira (PG) <sup>2</sup> e Carlos Alberto Moreira dos Santos (PQ) <sup>2</sup>
69	<b>Raman spectroscopic study towards the growth of CuO/CuWO<sub>4</sub> heterostructure</b> Laura C. Fonseca (PG) <sup>1</sup> , Carlos A. Parra (PQ) <sup>1</sup> , Paulo T. Cavalcante (PQ) <sup>2</sup> , Miryam Rincón (PQ) <sup>3</sup> , Angela M. Raba (PQ) <sup>4,*</sup>
70	<b>Structural and vibrational properties of tricobalt tetroxide obtained by anodizing</b> Miryam R. Joya (PQ) <sup>1</sup> , Leydi J. Cárdenas F. (PG) <sup>2</sup> , José A. S. Silva (PG) <sup>3</sup> , Paulo Tarso C. Freire (PQ) <sup>3</sup>
72	<b>Espectroscopia Raman aplicada no estudo da transformação de fase em cerâmicas odontológicas de zircônia</b> Monique de Souza (PG) <sup>1</sup> , Fernanda M. Tsuzuki (PG) <sup>2,*</sup> , Evaldo P. Beserra Neto (PG) <sup>2</sup> , Américo B. Correr (PQ) <sup>2</sup> , Ana R. Costa (PQ) <sup>2</sup> , Lourenço Correr-Sobrinho (PQ) <sup>2</sup> , Mauro L. Baesso (PQ) <sup>1</sup>

73	<b>Effect of storage solutions on the mineral and organic content of dentin and enamel: a Raman spectroscopy study</b> Mariana S. Gibin (PG) <sup>1*</sup> , Lidiane V. de Castro-Hoshino (PQ) <sup>1</sup> , Henrique dos Santos (PG) <sup>1</sup> , Raquel S. Palácios (PG) <sup>1</sup> , Renata C. Pascotto (PQ) <sup>2</sup> , Hugo M. S. Deróide (PG) <sup>1</sup> , Antonio Medina Neto (PQ) <sup>1</sup> , Francielle Sato (PQ) <sup>1</sup> .
74	<b>Estudo da pele humana <i>in vivo</i> avaliada por espectroscopia Raman</b> Julia M. A. Abdala (PG), <sup>1*</sup> Lázaro P. M. Neto (PQ), <sup>1</sup> Gustavo C. Silva (PG) <sup>1</sup> , Priscila P. Fávero (PQ) <sup>1</sup> , Airton A. Martin (PQ) <sup>1,2</sup> .
75	<b>Hyaluronic acid detection in human skin by <i>in vivo</i> confocal Raman spectroscopy</b> Lázaro P. Medeiros Neto (PQ) <sup>1*</sup> , Gustavo C. da Silva (PG) <sup>2</sup> , Ritiane M. Almeida (IC) <sup>1</sup> , Claudio A. Tellez Soto (PQ) <sup>2</sup> , Sidney B. Cartaxo (PQ) <sup>3</sup> , Airton A. Martin (PQ) <sup>1,2</sup>
76	<b>Kidney Injury biomarkers using FT Raman</b> Gabrielle Luana Jimenez Teodoro Nepomuceno (PG), <sup>1</sup> Herculano da Silva Martinho (PQ).
77	<b>Evaporation dynamics of water droplets used in the assembly of L, LDiphenylalanine nanostructures.</b> Letícia Foiani (IC) <sup>1*</sup> , Carla Bandeira (PG) <sup>1</sup> , and Herculano Martinho (PQ) <sup>1</sup>
79	<b>Structural, QAIM topological and spectroscopic analysis, and ADMET study of Methyl-2-(4-isobutylphenyl) propanoate</b> Maria R. Xavier (PG), <sup>1</sup> Leonardo P. da Silva (PG), <sup>2</sup> Kevin K.A. de Castro (PQ), <sup>3</sup> Amanda P. de Sousa (IC), <sup>3</sup> João P. da Hora (PQ), <sup>3</sup> Larissa S. Oliveira (IC), <sup>3</sup> Matheus N. da Rocha (IC), <sup>4</sup> Antônio C.H. Barreto (PQ), <sup>2</sup> Márcia M. Marinho (PQ), <sup>3</sup> Emmanuel S. Marinho (PQ), <sup>4</sup> Murilo S.S. Julião (PQ), <sup>3</sup> Paulo N. Bandeira (PQ), <sup>3</sup> Hécio S. dos Santos (PQ), <sup>1,3</sup> Alexandre M.R. Teixeira (PQ) <sup>1,4</sup>
81	<b>Multi-Wavelength Raman Spectroscopy of Poly(Furfuryl Alcohol)</b> Durval Bertoldo Menezes <sup>3</sup> , Maurizio E. Musso <sup>1</sup> , Francesco D'Amico <sup>2</sup> , Raphael J.F. Berger <sup>1</sup> , Andreas Reyer <sup>1</sup> , Letizia Scarabattoli <sup>1,4</sup> , Nicola Cefarini <sup>2</sup> , Thomas Seppeler <sup>5,6</sup> , Gianluca Tondi <sup>7</sup> , Thomas Schnabel <sup>5</sup> , Lisa Vaccari <sup>2</sup>
82	<b>Effect of the pressure on Raman spectra and lattice dynamic calculations of Bi<sub>2</sub>(MoO<sub>4</sub>)<sub>3</sub> crystal</b> G. D. Saraiva <sup>1*</sup> , A. J. Ramiro de Castro <sup>2</sup> , A. M. R. Teixeira <sup>3</sup> , V. O. Sousa Neto <sup>1</sup> , J. A. Lima Jr <sup>4</sup> , R. F. Juca <sup>5</sup> , J. Marias, P.T.C. Freire <sup>4</sup> , F. F. de Sousa <sup>6</sup> and W. Paraguassu <sup>6</sup> .
83	<b>Structural and vibrational properties under low temperatures of the tin-based organohalide (NH<sub>4</sub>)<sub>2</sub>SnCl<sub>6</sub></b> Vasco Stasczak Neto (PG) <sup>1*</sup> , Mayra A. P. Gomez (PG) <sup>1</sup> , Alejandro P. Ayala (PQ) <sup>1</sup>
84	<b>The Pressure-Induced structural phase transition of CsCuCl<sub>3</sub> like-perovskite compound</b> Juan S. Rodríguez H. (PG), <sup>1,*</sup> Mayra A. Padron G. (PG), <sup>1</sup> Leonardo O. Kutelak (PG), <sup>2</sup> Gustavo A. Lombardi (PG), <sup>2</sup> Ricardo D. Reis (PQ), <sup>2</sup> Alejandro P. Ayala (PQ), <sup>1</sup> and Carlos W. A. Paschoal (PQ). <sup>1</sup>
86	<b>Analyzing of Ti-Nb<sub>2</sub>O<sub>5</sub> catalysts phase changes after pressure-assisted heat treatment</b> Daniele T. Dias (PQ), <sup>1*</sup> Pietra B. Pires (IC), <sup>1</sup> Andressa O. Rodrigues (PG), <sup>1</sup> Betina C. Semianko (IC), <sup>1</sup> Maria E. K. Fuziki (PG), <sup>2</sup> Giane G. Lenzi (PQ) <sup>1</sup> , Sergio M. Tebcherani (PQ) <sup>1</sup> , Simone do R. F. Sabino (PG) <sup>3</sup> , Andressa Novatski (PQ) <sup>3</sup>
87	<b>In-situ pressure measurements in microfluidic devices by micro-Raman spectroscopy</b> André M. Batista* (PG) <sup>1</sup> , Herculano Martinho (PQ) <sup>1</sup> .
90	<b>Defect Engineering Control on Lanthanum-Doped Ceria Nanoparticles for the Oxidative Coupling of Methane</b> Fabiane J. Trindade (PQ), Bria Cisi (IC), <sup>1</sup> Daniele C. Ferreira (PQ), <sup>1</sup> Andre S. Ferlauto, <sup>1</sup>
91	<b>In situ Raman spectroscopy of CeO<sub>2</sub>:Gd nanoparticles and CeO<sub>2</sub>:La nanoplates</b> Daniele C. Ferreira (PQ), <sup>1,2,*</sup> Andre S. Ferlauto (PQ) <sup>1,2</sup>
93	<b>Structural and Magnetic Properties of Yb<sub>2</sub>Zr<sub>x</sub>Ti<sub>2-x</sub>O<sub>7</sub></b> Francisco Lieberich (PG) <sup>1</sup> , Pedro L. O. Silva (IC) <sup>1</sup> , Dimy Nanclares (PQ) <sup>2,3</sup> , André S. Ferlauto (PQ) <sup>2</sup> , Rafael S. Freitas (PQ) <sup>1*</sup>
94	<b>Espectroscopia Raman no estudo de ordem-desordem em catalisadores óxidos mistos para conversão do metano</b> Dimy Nanclares (PQ), <sup>1,2*</sup> Fabiane J. Trindade (PQ), <sup>1</sup> André S. Ferlauto (PQ) <sup>1</sup> .

95	<b>Vibrational, electronic, electrical, and magnetic properties of double perovskite <math>\text{Sr}_2\text{FeMoO}_6</math> prepared by co-precipitation.</b> Raí F. Jucá (PG), <sup>*,1</sup> João M. Soares (PQ), <sup>2</sup> Francisco F. Sousa (PQ), <sup>3</sup> Luiz. F. Lobato (PQ), <sup>3</sup> Antônio J. R. de Castro (PQ), <sup>4</sup> Alexandre M. R. Teixeira (PQ), <sup>5</sup> Marcelo A. Macedo (PQ), <sup>1</sup> Pablo R. T. Ribeiro (PQ), <sup>6</sup> Fernando L. A. Machado (PQ), <sup>6</sup> and Gilberto D. Saraiva (PQ), <sup>7</sup>
96	<b>Investigating the distinct thermal conductivity of <math>\text{AD}_2\text{O}_6</math> (<math>A = \text{Ni, Co, Zn}</math>; <math>D = \text{Sb, Ta}</math>) using Raman Spectroscopy</b> Rodolfo Tartaglia (PG), <sup>1</sup> Narayan Prasai (PQ), <sup>2</sup> Aaron. B. Christian (PQ), <sup>3</sup> John J. Neumeier (PQ), <sup>3</sup> Joshua L. Cohn (PQ), <sup>2</sup> and Eduardo Granado (PQ), <sup>1,*</sup> .
97	<b>Polarized Raman spectroscopy of monoclinic <math>(\text{In,Sc})_2\text{Ge}_2\text{O}_7</math> ceramics</b> Jéssica I. Viegas (PG), <sup>1,*</sup> Anderson Dias (PQ), <sup>1</sup>
98	<b>Vibrational and magnetic properties of iron tungstate (<math>\text{Fe}_2\text{WO}_6</math>) at low temperature</b> Raí F. Jucá (PG), <sup>1,*</sup> , Antônio J. R. de Castro (PQ), <sup>2</sup> João M. Soares (PQ), <sup>3</sup> José A. S. da Silva (PG), <sup>4</sup> Francisco G. S. Oliveira (PQ), <sup>5</sup> Igor F. Vasconcelos (PQ), <sup>5</sup> and Gilberto D. Saraiva (PQ), <sup>1</sup> .
99	<b>Observation of coupled orbital-lattice dynamics in <math>\text{CuSb}_2\text{O}_6</math></b> Carlos W. Galdino (PG) <sup>1</sup> , Tulio C R Rocha (PQ) <sup>1,2</sup> , Eduardo Granado (PQ) <sup>1</sup>
100	<b>Synthesis, structural, vibrational and optical properties of the <math>\text{SrCuSi}_4\text{O}_{10}</math> ceramic.</b> Raí F. Jucá (PG), <sup>1,*</sup> , José S. Sarmento (PG), <sup>2</sup> Pierre B. A. Fehinea (PQ), <sup>2</sup> João M. Soares (PQ), <sup>3</sup> W. Paraguassu (PQ), <sup>4</sup> Francisco F. de Sousa (PQ), <sup>4</sup> Luiz. F. Lobato (PQ), <sup>4</sup> Antônio J. R. de Castro (PQ), <sup>5</sup> and Gilberto D. Saraiva (PQ), <sup>1</sup> .
102	<b>O espalhamento Raman correlacionado Stokes-anti-Stokes: um estudo da influência da largura temporal do pulso de excitação.</b> Lucas V. Carvalho (PG), <sup>1</sup> Tiago A. Freitas (PG), <sup>2</sup> Paula D. Machado (PG), <sup>1</sup> Raul Corrêa (PG), <sup>1</sup> Carlos H. Monken (PQ), <sup>1</sup> Marcelo F. Santos (PQ), <sup>3</sup> Ado Jorio (PQ), <sup>1,*</sup>
103	<b>Estudo das polarizações dos fótons Stokes e anti-Stokes no espalhamento inelástico de luz correlacionado no diamante</b> Tiago Abreu Freitas (PG), <sup>1,*</sup> Paula D'Avila Machado (PQ), <sup>2</sup> Raul Corrêa(PQ), <sup>1</sup> Lucas V. de Carvalho(PG), <sup>1</sup> Carlos H. Monken (PQ), <sup>2</sup> Marcelo F. Santos (PQ) <sup>3</sup> , Ado Jorio (PQ), <sup>1,2</sup>
104	<b>Synthesis and characterization of hydrochar obtained from nanocellulose and cellulose.</b> Alessandra A. Aquino (PG) <sup>1</sup> , Antonio J. R. Castro (PQ) <sup>2</sup> , *, Gilberto D. Saraiva (PQ) <sup>3</sup> , Raí F. Jucá (PG) <sup>4</sup> , Vicente O. Sousa Neto (PQ) <sup>3</sup> , Antonio G. Souza Filho (PQ) <sup>5</sup> , Adley Forti Rubira <sup>6</sup> e Odair P. Ferreira (PQ) <sup>7,*</sup>
105	<b>Synthesis and characterization of hydrochar and biochar from chitosan</b> Antonio J. R. Castro (PQ) <sup>1</sup> , *, Alessandra A. Aquino (PG) <sup>2</sup> , Gilberto D. Saraiva (PQ) <sup>3</sup> , Vicente O. Sousa Neto (PQ) <sup>3</sup> , Raí F. Jucá (PG) <sup>4</sup> , Antonio G. Souza Filho (PQ) <sup>5</sup> , Alcinea C. Oliveria (PQ) <sup>6</sup> , Odair P. Ferreira (PQ) <sup>7</sup>
106	<b>Number of layers and defect density characterization in graphene. From nano optics to industrial application</b> Vitor Monken* (PG) <sup>1,2</sup> , João Luiz E. Campos* (PQ) <sup>1</sup> , Rafael Nadas (PG) <sup>1</sup> , Thiago L. Vasconcelos (PQ) <sup>3</sup> , Cassiano Rabelo (PQ) <sup>1</sup> , Hudson Miranda (PQ) <sup>1</sup> , Ado Jorio (PQ) <sup>1,2</sup> , Luiz Gustavo Cancado (PQ) <sup>1,2</sup>
107	<b>Tip-enhanced Raman Spectroscopy: a historical perspective based on event chronology analysis</b> Márcia Dias Diniz Costa (PQ), <sup>1,2</sup> Luiz Gustavo de O. L. Cançado (PQ), <sup>2</sup> Ado Jorio (PQ) <sup>2,*</sup>
108	<b>Tip-Enhanced Raman spectroscopy (TERS) of <math>\text{TiO}_2@\text{Al}_2\text{O}_3</math> core-shell nanoparticles</b> Victor H. F. Sales (PG) <sup>1</sup> , Thiago A. de Moura (PG) <sup>1</sup> , Gabriel A. P. Rocha (IC) <sup>1</sup> , Davino M. A. Neto (PG) <sup>1</sup> , Pierre B. A. Fehine (PQ) <sup>1</sup> , Alexandre R. Paschoal (PQ) <sup>1</sup> .
109	<b>Characterization of phosphorous dopped Carbon Quantum Dots by Tip-Enhanced Raman Spectroscopy</b> Thiago A. Moura* (PG), <sup>1,2</sup> Ludwing Marengo (PG), <sup>1</sup> Antônio A. Cruz (PG), <sup>3</sup> Samuel V. Carneiro (PG), <sup>3</sup> Manoel L. A. Neto (IC), <sup>1</sup> Rafael M. Freire (PQ), <sup>3</sup> Pierre B. A. Fehine (PQ), <sup>3</sup> Carlos L. César (PQ), <sup>1</sup> Alexandre R. Paschoal (PQ), <sup>1</sup> .
110	<b>The electron-phonon coupling to produce photoluminescence excitonic states in the 2D <math>\text{CsPb}_2\text{Br}_5</math> related-perovskite</b> Mayra A. P. Gómez (PG), <sup>1,*</sup> Juan S. R. Hernández (PG), <sup>1</sup> , Wellington C. Ferreira (PQ), <sup>1</sup> Bruno S. Araújo (PQ), <sup>1</sup> Carlos W.A. Paschoal (PQ), <sup>1</sup> Alejandro P. Ayala (PQ) <sup>1</sup>

111	<b>Effect of preheating a composite resin on physicochemical properties and degree of conversion</b> Lidiane V. Castro-Hoshino (PQ)* <sup>1</sup> , Mariana S. Gibin (PG) <sup>1</sup> , Antonio Medina Neto (PQ) <sup>1</sup> , Mauro Luciano Baesso (PQ) <sup>1</sup> , Francielle Sato (PQ) <sup>1</sup> .
112	<b>Synthesis of chitosan/graphene oxide/polyethyleneimine sponges for the treatment of aqueous solutions contaminated by Cu<sub>2+</sub> and Ni<sub>2+</sub></b> Michel Lopes Franco* (IC) <sup>1,2</sup> , Janaína Sobreira Rocha (PQ) <sup>1</sup> , Adisom Lucas da Silva Leonardo (IC) <sup>1,2</sup> , Thiago A. Moura* (PG) <sup>3</sup> , Pierre B. A. Fachine (PQ) <sup>2</sup>