



## Selected Publications

52. Snežana Miljanić, Adriana Dijanošić, Morana Novak, Todor G. Deliqeorqiev, Ivo Crnolatac, Ivo Piantanida, Vasile Chiș, Distinguishing Binding Modes of a New Phosphonium Dye with DNA by Surface-Enhanced Raman Spectroscopy, *RSC Advances*, 6 (2016) 41927-41936
51. S. Cintă Pinzaru, Cs. Müller, I. S. Tódor, B. Glamuzina, V. Chis, NIR-Raman spectrum and DFT calculations of okadaic acid DSP marine biotoxin microprobe, *Journal of Raman Spectroscopy*, 2016, 47, 636–642
50. Nicoleta E. Dina, Cristina M. Muntean, Nicolae Leopold, Alexandra Fălămaș, Adela Halmagyi, Ana Coste, Structural Changes Induced in Grapevine (*Vitis vinifera* L.) DNA by Femtosecond IR Laser Pulses: A Surface-Enhanced Raman Spectroscopic Study, *Nanomaterials* 2016, 6(6), 96
49. Oana T. Marisca, Karsten Kantner, Christian Pfeiffer, Qian Zhang, Beatriz Pelaz, Nicolae Leopold, Wolfgang J. Parak, Joanna Rejman, Comparison of the in Vitro Uptake and Toxicity of Collagen- and Synthetic Polymer-Coated Gold Nanoparticles, *Nanomaterials* 2015, 5(3), 1418-1430
48. Cristina M. Muntean, Ioan Bratu, Nicolae Leopold, Cristian Morari, Luiza Buimaga-Iarinca, Monica A. P. Purcaru, Subpicosecond surface dynamics in genomic DNA from in vitro-grown plant species: a SERS assessment, *Phys. Chem. Chem. Phys.*, 2015,17, 21323-21330
47. Simona Cinta Pinzaru, Csilla Müller, Sanja Tomšić, Monica M. Venter, Ioana Brezestean, Stijepo Ljubimir and Branko Glamuzina, Live diatoms facing Ag nanoparticles: surface enhanced Raman scattering of bulk cylindrotheca closterium pennate diatoms and of the single cells, *RSC Adv.*, 2016,6, 42899-42910
46. Cintă Pinzaru, S.; Müller, Cs.; Tomšić, S.; Venter, M. M.; Cozar, B. I.; Glamuzina, B., New SERS feature of  $\beta$ -carotene: consequences for quantitative SERS analysis, *Journal of Raman Spectroscopy*, 2015, 46, 597-604
45. Foris V, Kovacs G, Marsh LM, Bálint Z, Tötsch M, Avian A, Douschan P, Ghanim B, Klepetko W, Olschewski A, Olschewski H. 2016. CD133+ cells in pulmonary arterial hypertension. *Eur Respir J*. 2016 Aug;48(2):459-69
44. Jandl K, Stacher E, Bálint Z, Sturm E, Maric J, Peinhaupt M, Luschnig P, Aringer I, Fauland A, Konya V, Dahlen SE, Wheelock CE, Kratky D, Olschewski A, Marsche G, Schuligoi R, Heinemann A. 2016. Activated prostaglandin D2 receptors on macrophages enhance neutrophil recruitment into the lung. *Journal of Allergy Clinical Immunology* doi:10.1016/j.jaci.2015.11.012
43. Didiasova M, Zakrzewicz D, Magdolen V, Nagaraj C, Bálint Z, Rohde M, Preissner KT, Wygrecka M. 2015. STIM1/ORAI1-mediated Ca<sup>2+</sup> influx regulates enolase-1 exteriorization. *Journal of Biological Chemistry*. 2015 May 8;290(19):11983-99
42. Veith C, Zakrzewicz D, Dahal B, Bálint Z, Murmann K, Wygrecka M, Seeger W, Schermuly R, Weissmann N and G. Kwapiszewska. 2014. Hypoxia- or PDGF-BB-dependent paxillin tyrosine

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phosphorylation in pulmonary hypertension is reversed by HIF-1 $\alpha$  depletion or imatinib treatment. *Thromb Haemost.* 2014 Dec; 112 (6): 1288-303

41. Balenga NA, Martínez-Pinilla E, Kargl J, Schröder R, Peinhaupt M, Platzer W, Bálint Z, Zamarbide M, Dopeso-Reyes I, Ricobaraza A, Pérez-Ortiz JM, Kostenis E, Waldhoer M, Heinemann A, Franco R.. 2014. Heteromerization of GPR55 and cannabinoid CB2 receptors modulates signalling. *Br J Pharmacol* – 2014 Dec; 171(23): 5387-406

40. Zabini D, A Heinemann, V Foris, C Nagaraj, P Nierlich, Z Bálint, G Kwapiszewska, IM Lang, W Klepetko, H Olschewski and A Olschewski. 2014. Comprehensive analysis of inflammatory markers in CTEPH patients. *Eur Respir J*- 2014 Oct; 44(4):951-62

39. Crnkovic S, Egemnazarov B, Seay U, Gattinger N, Marsh LM, Bálint Z, Kovacs G, Ghanim B, Klepetko W, Schermuly RT, Weissmann N, Olschewski A, Kwapiszewska G. 2014. NPY/NPY1R mediated vasoconstrictory and proliferative effects in pulmonary hypertension. *Br J Pharmacol* - 2014 Aug; 171(16):3895-907

38. Helmberger M, M Pienn, M Urschler, P Kullnig, R Stollberger, G Kovacs, A Olschewski, H Olschewski and Z Bálint. 2014. Quantification of tortuosity and fractal dimension of the lung vessels in pulmonary hypertension patients. *PLoS One.* 9(1):e87515

37. Pienn M, Kovacs G, Tscherner M, Avian A, Johnson TR, Kullnig P, Stollberger R, Olschewski A, Olschewski H and Bálint Z. 2014. Non-invasive determination of pulmonary hypertension with dynamic contrast-enhanced computed tomography: a pilot study. *European Radiology* 24(3):668-676

Vlad Al. Toma, Anca D. Farcaş, Ioana Roman, Bogdan Sevastre, Denisa Hathazi, Florina Scurtu, 36. Grigore Damian, Radu Silaghi-Dumitrescu, Comparative In Vivo Effects of Hemoglobin-Based Oxygen Carriers (HBOC) with Varying Prooxidant and Physiological Reactivity, *PLoS One.* 2016 Apr 20;11(4):e0153909

35. Denisa Hathazi, Sonia Diana Mahuţ, Florina-Violeta Scurtu, Cristina Bischin, Corina Stanciu, Amr Ali Attia, Grigore Damian, Radu Silaghi-Dumitrescu, Involvement of ferryl in the reaction between nitrite and the oxy forms of globins, *Journal of Biological Inorganic Chemistry*, 2014, 19, 1233–1239

34. Denisa Hathazi, Augustin C. Mot, Anetta Vaida, Florina Scurtu, Iulia Lupan, Eva Fischer-Fodor, Grigore Damian, Donald M. Kurtz Jr., and Radu Silaghi-Dumitrescu, Oxidative Protection of Hemoglobin and Hemerythrin by Cross-Linking with a Nonheme Iron Peroxidase: Potentially Improved Oxygen Carriers for Use in Blood Substitutes, *Biomacromolecules*, 2014, 15 1920–1927G

33. Găină, L., Torje, I., Gal, E., Lupan, A., Bischin, C., Silaghi-Dumitrescu, R., Damian, G., Lönnecke, P., Cristea, C., Silaghi-Dumitrescu, L., Microwave assisted synthesis, photophysical and redox properties of (phenothiazinyl)vinyl-pyridinium dyes, *Dyes and Pigments*, 2014, 102, 315-325

32. Augustin Cătălin Moţ, Cristina Coman, Carmen Miron, Grigore Damian, Costel Sarbu, Radu Silaghi-Dumitrescu, An assay for pro-oxidant reactivity based on phenoxyl radicals generated by laccase, *Food Chemistry*, 2014, 143, 214–222

31. Vlase, Laurian; Benedec , Daniela ; Hanganu, Daniela; Damian, Grigore; Csillag, Ioan; Sevastre, Bogdan; Mot, Augustin C.; Silaghi-Dumitrescu, Radu; Tilea, Ioan. Evaluation of

---

antioxidant and antimicrobial activities and phenolic profile for *Hyssopus officinalis*, *Ocimum basilicum* and *Teucrium chamaedrys* from România. *Molecules*, 2014, 19(5), 5490-5507

30. T. A. Beu and A. Farcas, "Tight-binding normal mode analysis of suspended single-wall carbon nanotubes", *EPL* 113 (2016) 37004.

29. L. Horvath, T. Beu, M. Manghi, and J. Palmeri, "The vapor-liquid interface potential of (multi)polar fluids and its influence on ion solvation" *J. Chem. Phys.* 138, 154702 (2013) DOI: 10.1063/1.4799938

28. S. Höfner, A. Acocella, S. C. Pop, T. Narumi, K. Yasuoka, T. Beu, and F. Zerbetto, "GPU-Accelerated Computation of Electron Transfer", *Journal of Computational Chemistry* 33, 2351–2356 (2012).

27. T. A. Beu, "Molecular dynamics simulations of ion transport through carbon nanotubes. II. Structural effects of the nanotube radius, solute concentration, and applied electric fields", *J. Chem. Phys.* 135, 044515-11 (2011).

26. T. A. Beu, "Molecular dynamics simulations of ion transport through carbon nanotubes. III. Influence of the nanotube radius, solute concentration, and applied electric fields on the transport properties", *J. Chem. Phys.* 135, 044516-9 (2011).

25. T. A. Beu, A. Jurjiu, "Radiation-induced fragmentation of fullerenes", *Phys. Rev. B* 83, 024103 (2011).

24. T. A. Beu, "Simulation of the flow of aqueous solutions through carbon nanotubes", *Comput. Phys. Commun.*, 182, 2009 (2011).

23. T. A. Beu, "Introduction to Numerical Programming: A Practical Guide for Scientists and Engineers Using Python and C/C++"(CRC Press / Taylor & Francis, 2015) 674 pp., ISBN 9781466569676.

22. O. G. Piringer, T. A. Beu, "Transport Equations and Their Solutions", in *Plastic Packaging: Interactions with Food and Pharmaceuticals*, Second Edition, Editors O.-G. Piringer and A.L. Baner (Wiley-VCH, Weinheim, New York, 2008) pp. 195-246.

21. T. A. Beu, "Numerical solutions of the diffusion equation", in *Plastic Packaging Materials for Food: Barrier Function, Mass Transport, Quality Assurance, and Legislation*, Editors O.-G. Piringer and A.L. Baner, (Wiley-VCH Verlag GmbH, Weinheim, 2007) pp. 221-238.

20. T. A. Beu, "Numerical Calculus in C, Third Edition", (MicroInformatica, Cluj-Napoca, 2004) 372 pp. (in Romanian) . ISBN 973-9443-92-3.

19. Emil Vințeler, Nicoleta-Florina Stan, Raluca Luchian, Călin Căinap, João P. Prates-Ramalho, Vasile Chiș, Conformational landscape and low lying excited states of imatinib, *Journal of Molecular Modeling*, 2015, 21, 84

18. Rares Stiufiuc, Cristian Iacovita, Gabriela Stiufiuc, Ede Bodoki, Vasile Chiș, Constantin M. Lucaciu, Surface mediated chiral interactions between cyclodextrins and propranolol enantiomers: a SERS and DFT study, *Physical Chemistry Chemical Physics*, 2015, 17, 1281-1289.

17. István Sz. Tódor, László Szabó, Oana T. Marișca, Vasile Chiș, Nicolae Leopold, Gold nanoparticle assemblies of controllable size obtained by hydroxylamine reduction at room temperature, *Journal of Nanoparticle Research*, 16 (2014) 2740

- 
16. Coman, C., Leopold, L.F., Rugină, O.D., Barbu-Tudoran, L., Leopold, N., Tofană, M., Socaciu, C., Green synthesis of gold nanoparticles by *Allium sativum* extract and their assessment as SERS substrate, *Journal of Nanoparticle Research*, 2014, 16
  15. Vlad, I.E., Marisca, O.T., Vulpoi, A., Simon, S., Leopold, N., Anghel, S.D., Simple approach for gold nanoparticle synthesis using an Ar-bubbled plasma setup, *Journal of Nanoparticle Research*, 2014, 16, 1-11
  14. Nicoleta E. Mircescu, Haibo Zhou, Nicolae Leopold, Vasile Chiş, Natalia P. Ivleva, Reinhard Niessner, Towards a receptor-free immobilization and SERS detection of urinary tract infections causative pathogens, *Analytical and Bioanalytical Chemistry*, 406 (2014) 3051-3058
  13. Csilla Müller, Leontin David, Vasile Chiş, Simona Cintă Pînzaru, Detection of thiabendazole applied on citrus fruits and bananas using surface enhanced Raman scattering, *Food Chemistry*, 145 (2014) 814-820
  12. Müller, C., Glamuzina, B., Pozniak, I., Weber, K., Cialla, D., Popp, J., Cinta Pinzaru, S., Amnesic shellfish poisoning biotoxin detection in seawater using pure or amino-functionalized Ag nanoparticles and SERS, *Talanta*, 2014, 130, 108-115
  11. Yang, D., Mircescu, N.E., Zhou, H., Leopold, N., Chiş, V., Oltean, M., Ying, Y., Haisch, C., DFT study and quantitative detection by surface-enhanced Raman scattering (SERS) of ethyl carbamate, *Journal of Raman Spectroscopy*, 44 (2013) 1491-1496
  10. Leopold, N., Chiş, V., Mircescu, N.E., Marişca, O.T., Buja, O.M., Leopold, L.F., Socaciu, C., Braicu, C., Irimie, A., Berindan-Neagoe, I., One step synthesis of SERS active colloidal gold nanoparticles by reduction with polyethylene glycol, 2013, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 436, 133-138
  9. Muntean, C.M., Leopold, N., Halmagyi, A., Valimareanu, S., Surface-enhanced Raman scattering assessment of DNA from leaf tissues adsorbed on silver colloidal nanoparticles, 2013, *Journal of Raman Spectroscopy*, 44, 817-822
  8. Stiufiuc, R., Iacovita, C., Lucaciu, C.M., Stiufiuc, G., Dutu, A.G., Braescu, C., Leopold, N., SERS-active silver colloids prepared by reduction of silver nitrate with short-chain polyethylene glycol, 2013, *Nanoscale Research Letters*, 8, 1-5
  7. Mircescu, N.E., Oltean, M., Chis, V., Leopold, N., FTIR, FT-Raman, SERS and DFT study on melamine, 2012, *Vibrational Spectroscopy*, 62, 165-171
  6. Lekprasert, B., Korolkov, V., Falamas, A., Chis, V., Roberts, C.J., Tendler, S.J., Nottingher, I., Investigations of the supramolecular structure of individual diphenylalanine nano- and microtubes by polarized Raman microspectroscopy., 2012, *Biomacromolecules*, 13, 2181-2187
  5. Muntean, C.M., Leopold, N., Halmagyi, A., Valimareanu, S., Surface-enhanced Raman spectroscopy of genomic DNA from in vitro grown plant species, 2011, *Journal of Raman Spectroscopy*, 42, 1925-1931
  4. Herman, K., Szabó, L., Leopold, L.F., Chiş, V., Leopold, N., In situ laser-induced photochemical silver substrate synthesis and sequential SERS detection in a flow cell, 2011, *Analytical and Bioanalytical Chemistry*, 400, 815-820

- 
3. Muntean, C.M., Leopold, N., Halmagyi, A., Valimareanu, S., Surface-enhanced Raman spectroscopy of DNA from leaves of in vitro grown apple plants, 2011, *Journal of Raman Spectroscopy*, 42, 844-850
  2. Leopold, N., Cîntă-Pînzaru, S., Szabó, L., Ileşan, D., Chiş, V., Cozar, O., Kiefer, W., Raman and SERS study of metoclopramide at different pH values, 2010, *Journal of Raman Spectroscopy*, 41, 248-255
  1. Leopold, N., Lendl, B., On-column silver substrate synthesis and surface-enhanced Raman detection in capillary electrophoresis, 2010, *Analytical and Bioanalytical Chemistry*, 396, 2341-2348