

Lista de lucrări

Cărți editate

1. C. Apetrei, **Corn and Coconut Oil: Antioxidant Properties, Uses and Health Benefits**, ISBN: 978-1-63483-420-9, Nova Publishers, 2015.
2. Constantin Apetrei, **Bioactive compounds: natural sources, physicochemical characterization, applications**, Bentham Science Publishers, 2016, eISBN: 978-1-68108-341-4, ISBN: 978-1-68108-342-1, ISSN: 2468-6395.

Volum editat

1. International Conference on Colloids and Surfaces Chemistry (10; 2011; Galati). The 10th International Conference on Colloids and Surfaces Chemistry: June 9th - 10th 2011, Galați, Romania: [book of abstracts]. Eds. Monica Murărescu, Romică Crețu, Paula Popa, **Constantin Apetrei**, Cătălina Iticescu. Galati: Galați University Press (GUP), 2011. 154 p.; 30 cm. ISBN 978-606-8348-05-6.

Capitole în cărți

1. M.L. Rodríguez-Méndez, **C. Apetrei**, J.A. De Saja, *Electronic Tongues Purposely Designed for the Organoleptic Characterization of Olive Oils*. In: Victor R. Preedy and Ronald Ross Watson, editors, **Olives and Olive Oil in Health and Disease Prevention**. Oxford: Academic Press, 2010, pp. 525-532. ISBN: 978-0-12-374420-3
<http://www.sciencedirect.com/science/article/pii/B9780123744203000577>
2. M.L. Rodríguez-Méndez, **C. Apetrei**, C. Medina, R. Muñoz, J.A. de Saja, *Sensor arrays based on phthalocyanines: New developments on nanostructured and biomimetic electrochemical sensors*. Chapter 4, pages 139-180, In L. Lvova, D. Kirsanov, A. Legin, C. Di Natale, **Multisensor Systems for Chemical Analysis - Materials and Sensors**, Pan Stanford Publishing, 2013. ISBN hardcover: 9789814411158; ISBN ebook version: 9789814411165.
3. **C. Apetrei**, M. Ghasemi-Varnamkhasti, Biosensors in food PDO authentication, Chapter 11, in **Comprehensive Analytical Chemistry**, Volume 60 , 2013, Pages 279-297, **Food Protected Designation of Origin - Methodologies and Applications**, Ed. A. Gonzalvez and M. de la Guardia, Elsevier, ISBN: 9780444595621, <http://dx.doi.org/10.1016/B978-0-444-59562-1.00011-6>
<http://store.elsevier.com/Food-Protected-Designation-of-Origin/isbn-9780444595621/>
4. I. M. Apetrei, **C. Apetrei**, Y. El Rayess, Characterization of Red Wines Polyphenolics Employing Sensors and Biosensors (Chapter 2), pp. 41-70. in Wine: Phenolic Composition, Classification and Health Benefits, Editor Youssef El Rayess, 2014, ISBN: 978-1-63321-059-2, Nova Publishers,
https://www.novapublishers.com/catalog/product_info.php?products_id=50003&osCsid=647a25d9d412d07c8690696cea0ed681
5. I. M. Apetrei, **C. Apetrei**, Biosensor Based on Nanostructured Sensitive Material for the Detection of Epinephrine (Chapter 5), pp. 55-74. in **SENSING - MONITORING - TELEDIAGNOSIS FOR LIFE SCIENCES, Vol. II, FOOD AND ENVIRONMENT**, Editors L. Floroian, M. Badea, M. Moga, 2014, Editura Universității Transilvania din Brașov, ISBN: 978-606-19-0388-7 gen, ISBN: 978-606-19-0390-0 Vol. II
6. **C. Apetrei**, M. Ghasemi-Varnamkhasti, I. M. Apetrei, Olive oil and combined electronic nose and tongue (Chapter 27), In Electronic Nose and Tongue in Food Science, Editor M.L. Rodriguez-Mendez, Oxford: Academic Press; ISBN:978-0-12-800243-8, 2016, pp. 277-289.
7. **C. Apetrei**, I. M. Apetrei, Chemical composition of corn oil, chapter 1, In **Corn and Coconut Oil: Antioxidant Properties, Uses and Health Benefits**, Editor: Constantin Apetrei, ISBN: 978-1-63483-420-9, Nova Publishers, 2015, pp. 1-28.
8. I. M. Apetrei, **C. Apetrei**, Quality analyses and authentication of coconut oil, chapter 7, In **Corn and Coconut Oil: Antioxidant Properties, Uses and Health Benefits**, Editor: Constantin Apetrei, ISBN: 978-1-63483-420-9, Nova Publishers, 2015, pp. 131-158.

9. **Constantin Apetrei**, Wine: Biologic Active Compounds and Health Benefits (Chapter 2), in **Bioactive compounds: natural sources, physicochemical characterization, applications**, Editor C. Apetrei (Ed.) Bentham Science Publishers, 2016, pp. 32-68.
10. Maria Lisa Clodoveo, Tiziana Dipalmo, Pasquale Crupi, Bernardo C. de Gennaro, Carlo Franchini, Filomena Corbo, **Constantin Apetrei**, Extra Virgin Olive Oils: Bioactive Compounds and Health Benefits (Chapter 1), in **Bioactive compounds: natural sources, physicochemical characterization, applications**, Editor C. Apetrei (Ed.) Bentham Science Publishers, 2016, pp. 3-31.
11. **Apetrei, Constantin**, Mateus D. Maximino, Cibely S. Martin, Priscilla Alessio, Sensors Based on Conducting Polymers for the Analysis of Food Products (Chapter 27) in **Polymers for Food Applications**, Editors: Gutiérrez, Tomy (Ed.), eBook ISBN 978-3-319-94625-2, DOI 10.1007/978-3-319-94625-2, Hardcover ISBN 978-3-319-94624-5, Springer, 2018 pp. 757-792.
12. **Constantin Apetrei**, Alexandra Virginia Bouneagu. Electronic Noses and Traceability of Foods. In Reference Module in Food Science 2020. <https://doi.org/10.1016/B978-0-08-100596-5.22852-7>

Articole publicate în reviste ISI (Clarivate Analytics)

- 1 **Apetrei, C.**, Rodríguez-Méndez, M.L., Parra, V., Gutierrez, F., De Saja, J.A., 2004, Array of voltammetric sensors for the discrimination of bitter solutions, *Sensors and Actuators B: Chemical* 103, pp. 145-152, [doi:10.1016/j.snb.2004.04.047](https://doi.org/10.1016/j.snb.2004.04.047)
- 2 Arrieta, A.A., **Apetrei, C.**, Rodríguez-Méndez, M.L., De Saja, J.A., 2004, Voltammetric sensor array based on conducting polymer-modified electrodes for the discrimination of liquids, *Electrochimica Acta* 49, pp. 4543-4551, [doi:10.1016/j.electacta.2004.05.010](https://doi.org/10.1016/j.electacta.2004.05.010)
- 3 Casilli, S., De Luca, M., **Apetrei, C.**, Parra, V., Arrieta, A.A., Valli, L., Jiang, J., Rodríguez-Méndez, M.L., De Saja, J.A., 2005, Langmuir-Blodgett and Langmuir-Schaefer films of homoleptic and heteroleptic phthalocyanine complexes as voltammetric sensors:: Applications to the study of antioxidants, *Applied Surface Science* 246 (4), pp. 304-312, [doi:10.1016/j.apsusc.2004.11.002](https://doi.org/10.1016/j.apsusc.2004.11.002)
- 4 **Apetrei, C.**, Rodríguez-Méndez, M.L., De Saja, J.A., 2005, Modified carbon paste electrodes for discrimination of vegetable oils, *Sensors and Actuators, B: Chemical* 111-112, pp. 403-409, [doi:10.1016/j.snb.2005.03.041](https://doi.org/10.1016/j.snb.2005.03.041)
- 5 Parra, V., Arrieta, A.A., Fernández-Escudero, J.A., García, H., **Apetrei, C.**, Rodríguez-Méndez, M.L., Saja, J.A., 2006, E-tongue based on a hybrid array of voltammetric sensors based on phthalocyanines, perylene derivatives and conducting polymers: Discrimination capability towards red wines elaborated with different varieties of grapes, *Sensors and Actuators, B: Chemical* 115 (1), pp. 54-61, [doi:10.1016/j.snb.2005.08.040](https://doi.org/10.1016/j.snb.2005.08.040)
- 6 **Apetrei, C.**, Casilli, S., De Luca, M., Valli, L., Jiang, J., Rodríguez-Méndez, M.L., De Saja, J.A., 2006, Spectroelectrochemical characterisation of Langmuir-Schaefer films of heteroleptic phthalocyanine complexes. Potential applications, *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 284-285, pp. 574-582, [doi:10.1016/j.colsurfa.2005.10.069](https://doi.org/10.1016/j.colsurfa.2005.10.069)
- 7 **Apetrei, C.**, Apetrei, I.M., Nevares, I., del Alamo, M., Parra, V., Rodríguez-Méndez, M.L., De Saja, J.A., 2007, Using an e-tongue based on voltammetric electrodes to discriminate among red wines aged in oak barrels or aged using alternative methods. Correlation between electrochemical signals and analytical parameters, *Electrochimica Acta* 52 (7), pp. 2588-2594, [doi:10.1016/j.electacta.2006.09.014](https://doi.org/10.1016/j.electacta.2006.09.014)
- 8 Apetrei, C., Gutierrez, F., Rodríguez-Méndez, M.L., de Saja, J.A., 2007, Novel method based on carbon paste electrodes for the evaluation of bitterness in extra virgin olive oils, *Sensors and Actuators, B: Chemical* 121 (2), pp. 567-575, [doi:10.1016/j.snb.2006.04.091](https://doi.org/10.1016/j.snb.2006.04.091)
- 9 Rodríguez-Méndez, M.L., **Apetrei, C.**, Apetrei, I., Villanueva, S., De Saja, J.A., Nevares, I., Del Alamo, M., 2007, Combination of an electronic nose, an electronic tongue and an electronic eye for the Analysis of Red Wines aged with alternative methods, *IEEE International Symposium on Industrial Electronics*, art. no. 4375050, pp. 2782-2787, [doi:10.1109/ISIE.2007.4375050](https://doi.org/10.1109/ISIE.2007.4375050)
- 10 Rodríguez-Méndez, M.L., **Apetrei, C.**, de Saja, J.A., 2008, Evaluation of the polyphenolic content of extra virgin olive oils using an array of voltammetric sensors, *Electrochimica Acta* 53 (20), pp. 5867-5872, [doi:10.1016/j.electacta.2008.04.006](https://doi.org/10.1016/j.electacta.2008.04.006)
- 11 Rodríguez-Méndez, M.L., Parra, V., **Apetrei, C.**, Villanueva, S., Gay, M., Prieto, N., Martinez, J., De Saja, J.A., 2008, Electronic tongue based on voltammetric electrodes modified with materials showing complementary electroactive properties. Applications, *Microchimica Acta* 163 (1-2), pp. 23-31, DOI: 10.1007/s00604-007-0907-8
- 12 Rodríguez-Méndez, M.L., **Apetrei, C.**, Nieto, M., Hernandez, V., Navarrete, J.T.L., Effenberger, F., de Saja, J.A., 2009, Sensing properties of organised films based on a bithiophene derivative, *Sensors and Actuators, B: Chemical* 141 (2), pp. 625-633, [doi:10.1016/j.snb.2009.06.018](https://doi.org/10.1016/j.snb.2009.06.018)

- 13 Rodríguez-Méndez, M.L., Gay, M., **Apetrei, C.**, De Saja, J.A., 2009, Biogenic amines and fish freshness assessment using a multisensor system based on voltammetric electrodes. Comparison between CPE and screen-printed electrodes, *Electrochimica Acta* 54 (27), pp. 7033-7041, [doi:10.1016/j.electacta.2009.07.024](https://doi.org/10.1016/j.electacta.2009.07.024)
- 14 **Apetrei, C.**, Apetrei, I.M., Villanueva, S., de Saja, J.A., Gutierrez-Rosales, F., Rodriguez-Mendez, M.L., 2010, Combination of an e-nose, an e-tongue and an e-eye for the characterisation of olive oils with different degree of bitterness, *Analytica Chimica Acta* 663, pp. 91-97, [doi:10.1016/j.aca.2010.01.034](https://doi.org/10.1016/j.aca.2010.01.034)
- 15 Stoica, M., Cârâc, G., **Apetrei, C.**, Cantaragi, A.-M., 2010, Electrochemical study of stainless steel surfaces in biodegradable biocides, *Journal of Optoelectronics and Advanced Materials* 12, pp. 919-922, <http://joam.inoe.ro/index.php?option=magazine&op=view&idu=2435&catid=49>
- 16 Gay, M., **Apetrei, C.**, Nevares, I., del Alamo, M., Zurro, J., Prieto, N., De Saja, J. A., Rodríguez-Méndez, M.L., 2010, Application of an electronic tongue to study the effect of the use of pieces of wood and micro-oxygenation in the aging of red wine, *Electrochimica Acta* 55, pp. 6782–6788, [doi:10.1016/j.electacta.2010.05.090](https://doi.org/10.1016/j.electacta.2010.05.090)
- 17 **Apetrei, C.**, Alessio, P., Constantino, C.J.L., de Saja, J.A., Rodriguez-Mendez, M.L., Pavinatto, F.J., Fernandes, E.G. , Zucolotto, V., Oliveira, O.N., 2011, Biomimetic biosensor based on lipidic layers containing tyrosinase and lutetium bisphthalocyanine for the detection of antioxidants, *Biosensors and Bioelectronics* 26, pp. 2513-2519, [doi:10.1016/j.bios.2010.10.047](https://doi.org/10.1016/j.bios.2010.10.047)
- 18 Pavinatto, F.J., Fernandes E.G.R., Alessio P., Constantino C.J.L., de Saja J.A., Zucolotto V., **Apetrei C.**, Oliveira O.N. Jr., M.L. Rodriguez-Mendez, 2011, Optimized architecture for Tyrosinase-containing Langmuir-Blodgett films to detect pyrogallol, *Journal of Materials Chemistry*, 21: 4995-5003, <http://dx.doi.org/10.1039/c0jm03864d>
- 19 **Apetrei, C.**, Apetrei, I.M., De Saja, J.A., Rodriguez-Mendez M.L., 2011, Carbon paste electrodes made from different carbonaceous materials: application in the study of antioxidants, *Sensors*, 11, pp. 1328-1344, [doi:10.3390/s110201328](https://doi.org/10.3390/s110201328)
- 20 **Apetrei, C.**, Rodríguez-Méndez, M.L., de Saja, J.A., 2011, Amperometric tyrosinase based biosensor using an electropolymerized phosphate-doped polypyrrole film as an immobilization support. Application for detection of phenolic compounds, *Electrochimica Acta*, 56, pp. 8919-8925, [doi:10.1016/j.electacta.2011.07.127](https://doi.org/10.1016/j.electacta.2011.07.127)
- 21 **Apetrei, C.**, Nieto, M., Rodríguez-Méndez, M.L., de Saja, J.A., 2011, Development of lutetium bisphthalocyanine/carbon nanotube Langmuir-Blodgett films. Sensing properties, *Journal of Porphyrins & Phthalocyanines*, 15, pp. 908-917, [DOI No: 10.1142/S108842461100377X](https://doi.org/10.1142/S108842461100377X)
- 22 Ghasemi-Varnamkhasti, M., Rodríguez-Méndez M.L., Mohtasebi, S.S., **Apetrei, C.**, Lozano, J., Ahmadi, H., Razavi, S.H., de Saja, J.A., 2012, Monitoring the aging of beers using a bioelectronic tongue, *Food Control*, 25, pp. 216-224, [doi:10.1016/j.foodcont.2011.10.020](https://doi.org/10.1016/j.foodcont.2011.10.020)
- 23 Ghasemi-Varnamkhasti, M., Mohtasebi, S.S., Rodriguez-Mendez, M.L., Lozano, J., Razavi, S.H., Ahmadi, H., **Apetrei, C.**, 2012, Classification of non alcoholic beer based on aftertaste sensory evaluation by chemometric tools, *Expert Systems With Application*, 39, pp. 4315-4327, [doi:10.1016/j.eswa.2011.09.101](https://doi.org/10.1016/j.eswa.2011.09.101)
- 24 Apetrei, I.M., Rodríguez-Méndez M.L., **Apetrei, C.**, Nevares, I., del Alamo, M., de Saja, J.A., 2012, Monitoring of evolution during red wine aging in oak barrels and alternative method by means of an electronic panel test, *Food Research International*, 45 (1) , pp. 244-249, [doi:10.1016/j.foodres.2011.10.034](https://doi.org/10.1016/j.foodres.2011.10.034)
- 25 F. Matemadombo, **C. Apetrei**, T. Nyokong, M.L. Rodriguez-Méndez, J.A. de Saja, 2012, Comparison of carbon screen printed and disk electrodes in the detection of antioxidants using CoPc derivatives, *Sensors and Actuators, B: Chemical*, 166-167, pp. 457-466, <http://dx.doi.org/10.1016/j.snb.2012.02.088>
- 26 **Apetrei, C.**, 2012, Novel method based on polypyrrole-modified sensors and emulsions for the evaluation of bitterness in extra virgin olive oils, *Food Research International*, 48, pp. 673-680, <http://dx.doi.org/10.1016/j.foodres.2012.06.010>
- 27 **Apetrei, C.**, De Saja, J.A., Rodriguez-Mendez, M.L., 2012, Nanostructured vs. carbonaceous biosensors: Comparative studies for detection of phenolic compounds, *BIOVICES 2012 - Proceedings of the International Conference on Biomedical Electronics and Devices* , pp. 104-109, DOI: 10.5220/0003715701040109
- 28 **Apetrei, C.**; Saja, J.A.; Zurro, J.; Rodríguez-Méndez, M.L., 2012, Advantages of the Biomimetic Nanostructured Films as an Immobilization Method vs. the Carbon Paste Classical Method, *Catalysts*, 2, 517-531, doi:[10.3390/catal2040517](https://doi.org/10.3390/catal2040517)
- 29 Apetrei, I.M., Rodriguez-Mendez, M.L., **Apetrei, C.**, De Saja, J.A., 2013, Enzyme sensor based on carbon nanotubes/cobalt(II) phthalocyanine and tyrosinase used in pharmaceutical analysis, *Sensors and Actuators, B: Chemical*, 177 , pp. 138-144, <http://dx.doi.org/10.1016/j.snb.2012.10.131>
- 30 Apetrei, I.M., **Apetrei, C.**, 2013, Amperometric biosensor based on polypyrrole and tyrosinase for the detection of tyramine in food samples, *Sensors and Actuators B: Chemical*, 178, pp. 40-46, <http://dx.doi.org/10.1016/j.snb.2012.12.064>
- 31 N. Prieto, P. Oliveri, R. Leardi, M. Gay, **C. Apetrei**, M.L. Rodriguez-Méndez, J.A. de Saja, 2013, Application of a GA-PLS strategy for variable reduction of electronic tongue signals, *Sensors and Actuators B* 183, 52- 57, <http://dx.doi.org/10.1016/j.snb.2013.03.114>

- 32 I. M. Apetrei, M. L. Rodriguez-Mendez, **C. Apetrei**, J. A. de Saja, Fish Freshness Monitoring Using an E-tongue Based
on Polypyrrole Modified Screen-Printed Electrodes, IEEE Sensors Journal 13 (2013) 2548 - 2554;
<http://dx.doi.org/10.1109/JSEN.2013.2253317>
- 33 Irina Mirela Apetrei, **Constantin Apetrei**, Amperometric tyrosinase based biosensors for serotonin detection, Romanian
Biotechnological Letters 18(3) (2013) 8253-8262; <http://www.rombio.eu/vol18nr3/Content.html>
- 34 **C. Apetrei**, C. Medina, J.A. de Saja, M.L. Rodriguez-Mendez, *Electrochemical characterization of dilithium
phthalocyanine carbonaceous electrodes*, Journal of Porphyrins and Phthalocyanines 17 (2013) 522-528; DOI:
10.1142/S1088424613500430 <http://www.worldscientific.com/doi/abs/10.1142/S1088424613500430?journalCode=jpp>
- 35 Irina Mirela Apetrei, **Constantin Apetrei**, Voltammetric e-tongue for the quantification of total polyphenol content in olive
oils, Food Research International 54 (2013) 2075-2082; <http://dx.doi.org/10.1016/j.foodres.2013.04.032>
- 36 I. M. Apetrei, **C. Apetrei**, Biosensor based on tyrosinase immobilized in single-walled carbon nanotubes modified glassy
carbon electrode for epinephrine detection, International Journal of Nanomedicine 8 (2013) 4391-4398;
<http://dx.doi.org/10.2147/IJN.S52760>
- 37 X. Cetó, **C. Apetrei**, M. del Valle, M. L. Rodríguez-Méndez. Evaluation of red wines antioxidant capacity by means of a
voltammetric e-tongue with an optimized sensor array. Electrochimica Acta, 120 (2014) 180-186.
<http://dx.doi.org/10.1016/j.electacta.2013.12.079>
- 38 M. L. Rodriguez-Mendez, **C. Apetrei**, M. Gay, C. Medina-Plaza, J. A. de Saja, S. Vidal, O. Aagaard, M. Ugliano, J. Wirth,
V. Cheynier. Evaluation of oxygen exposure levels and polyphenolic content of red wines using an electronic panel
formed by an electronic nose and an electronic tongue. Food Chemistry, 155 (2014) 91-97.
<http://dx.doi.org/10.1016/j.foodchem.2014.01.021>
- 39 P. Alessio, **C. Apetrei**, R. J. G. Rubira, C. J. L. Constantino, C. Medina-Plaza, J. A. De Saja, M. L. Rodríguez-Méndez,
Structural and Electrochemical Properties of Lutetium Bis-Octachloro-Phthalocyaninate Nanostructured Films.
Application as Voltammetric Sensors. J. Nanosci. Nanotechnol. 14 (2014) 6754-6763.
<http://dx.doi.org/10.1166/jnn.2014.9355>
- 40 I. M. Apetrei, C. V. Popa (Ungureanu), **C. Apetrei**, D. Tutunaru, Biosensors based on graphene modified screen-printed
electrodes for the detection of catecholamines, Romanian Biotechnological Letters 19(5) (2014) 9801-9809,
<http://www.rombio.eu/vol19nr5/19.pdf>
- 41 I. M. Apetrei, **C. Apetrei**, Study of Different Carbonaceous Materials as Modifiers of Screen-Printed Electrodes for
Detection of Catecholamines, IEEE Sensors Journal 15 (2015) 3094 - 3101,
<http://dx.doi.org/10.1109/JSEN.2014.2335534>
- 42 I.M. Apetrei, **C. Apetrei**, Detection of virgin olive oil adulteration using a voltammetric e-tongue, Computers and
Electronics in Agriculture 108 (2014) 148–154, <http://dx.doi.org/10.1016/j.compag.2014.08.002>
- 43 I.M. Apetrei, **C. Apetrei**, The biocomposite screen-printed biosensor based on immobilization of tyrosinase onto the
carboxyl functionalised carbon nanotube for assaying tyramine in fish products, Journal of Food Engineering 149 (2015)
1-8, <http://dx.doi.org/10.1016/j.jfoodeng.2014.09.036>
- 44 I. M. Apetrei, C. Diaconu, **C. Apetrei**, C. Georgescu, Electrochemical biosensor based on carbon nanofibers and diamine
oxidase for detection of norepinephrine, Romanian Biotechnological Letters 21(1) (2016) 11092-11102.
- 45 I. M. Apetrei, **C. Apetrei**, Biosensing Application of Hybrid Thin Film Layers Based Biosensors, IEEE Sensors Journal 15
(2015) 6926 - 6932, <http://dx.doi.org/10.1109/JSEN.2015.2473796>
- 46 Irina Mirela Apetrei, **Constantin Apetrei**, Amperometric Biosensor Based on Diamine Oxidase/Platinum
Nanoparticles/Graphene/Chitosan Modified Screen-Printed Carbon Electrode for Histamine Detection, Sensors 2016,
16(4), 422; doi:10.3390/s16040422
- 47 I. M. Apetrei, **C. Apetrei**, Voltammetric determination of melatonin at a graphene based sensor from pharmaceutical
products, International Journal of Nanomedicine 2016: 11, 1859-1866. <http://dx.doi.org/10.2147/IJN.S104941>
- 48 I.M. Apetrei, **C. Apetrei**, Application of voltammetric e-tongue for the detection of ammonia and putrescine in beef
products, Sensors and Actuators B: Chemical, 234 (2016) 371-379. <http://dx.doi.org/10.1016/j.snb.2016.05.005>
- 49 I. M. Apetrei, **C. Apetrei**, O. Dumitriu Buzia, Ordered mesoporous carbon based sensor for sensitive detection of vitamin
B₆ in pharmaceuticals, Farmacia, 2016, Vol. 64, 4, 544-548, <http://www.revistafarmacia.ro/201604/issue42016art11.html>
- 50 I. M. Apetrei, **C. Apetrei**, Highly sensitive voltamperometric determination of pyritinol using carbon nanofiber/gold
nanoparticle composite screen-printed carbon electrode. International Journal of Nanomedicine 2017: 12, 5177-5188.
<https://doi.org/10.2147/IJN.S138978>
- 51 I. M. Apetrei, A. A. Bejinaru, M. Boev, **C. Apetrei**, O. Dumitriu Buzia, Determination of ibuprofen based on screen-printed
electrodes modified with carbon nanofibers. Farmacia 2017, Vol. 65, 5, 790-795.
<http://www.revistafarmacia.ro/201705/issue52017art22.html>

- 52 J. Lozano, **C. Apetrei**, M. Ghasemi-Varnamkhasti, D. Matatagui, J. P. Santos, Sensors and Systems for Environmental Monitoring and Control, Journal of Sensors, Volume 2017, Article ID 6879748, 2 pages, <https://doi.org/10.1155/2017/6879748>
- 53 I. M. Apetrei, **C. Apetrei**, A modified nanostructured graphene-gold nanoparticle carbon screen-printed electrode for the sensitive voltammetric detection of rutin. Measurement 2018; 114, 37–43. <http://dx.doi.org/10.1016/j.measurement.2017.09.020>
- 54 Mahdi Ghasemi-Varnamkhasti, **Constantin Apetrei**, Jesus Lozano, Amarachukwu Anyogu, Potential use of electronic noses, electronic tongues and biosensors as multisensor systems for spoilage examination in foods, Trends in Food Science & Technology, 80 (2018) 71-92. <https://doi.org/10.1016/j.tifs.2018.07.018>
- 55 Irina Mirela Apetrei, **Constantin Apetrei**. Development of a Novel Biosensor Based on Tyrosinase/Platinum Nanoparticles/Chitosan/Graphene Nanostructured Layer with Applicability in Bioanalysis, Materials 2019, 12(7), 1009; <https://doi.org/10.3390/ma12071009>
- 56 **C. Apetrei**, C. Iticescu, L.P. Georgescu. Multisensory System Used for the Analysis of the Water in the Lower Area of River Danube, *Nanomaterials*. 2019; 9(6): 891. <https://doi.org/10.3390/nano9060891>
- 57 Aurel Tabacaru, Valentina Colombo, **Constantin Apetrei**. Development of Sensor based on Copper(II) Thiocyanate Pyridine Polymeric Complex for Detection of Catechol. IEEE Sensors Journal 2019, 19, (22) 10198-10206, DOI: <https://doi.org/10.1109/JSEN.2019.2927283>
- 58 Elisabeta-Irina Geana, Corina Teodora Ciucure, **Constantin Apetrei**, Victoria Artem. Application of Spectroscopic UV-Vis and FT-IR Screening Techniques Coupled with Multivariate Statistical Analysis for Red Wine Authentication: Varietal and Vintage Year Discrimination. *Molecules* 2019, 24, 4166; <https://doi.org/10.3390/molecules24224166>
- 59 Oana-Maria Dragostin, Rodica Tatia, Sangram Keshari Samal, Anca Oancea, Alexandra Simona Zamfir, Ionut, Dragostin, Elena-Lacramioara Lisa, **Constantin Apetrei**, Carmen Lacramioara Zamfir. Designing of Chitosan Derivatives Nanoparticles with Antiangiogenic Effect for Cancer Therapy. *Nanomaterials* 2020, 10, 698; <https://doi.org/10.3390/nano10040698>
- 60 Dinu, A.; **Apetrei, C.** A Review on Electrochemical Sensors and Biosensors Used in Phenylalanine Electroanalysis. *Sensors* 2020, 20, 2496. <https://doi.org/10.3390/s20092496>
- 61 **Constantin Apetrei**, Maria Luz Rodriguez-Mendez, Mihaela Badea, Cecilia Cristea. Editorial: Electrochemical Sensors and Biosensors in Medical and Pharmaceutical Bioanalysis. *Front. Bioeng. Biotechnol* 8:533. <https://doi.org/10.3389/fbioe.2020.00533>
- 62 Bounegru, A. V.; **Apetrei, C.** Voltammetric Sensors Based on Nanomaterials for Detection of Caffeic Acid in Food Supplements. *Chemosensors* 2020, 8 (2), 41. <https://doi.org/10.3390/chemosensors8020041>
- 63 Bounegru, A. V.; **Apetrei, C.** Carbonaceous Nanomaterials Employed in the Development of Electrochemical Sensors Based on Screen-Printing Technique—A Review. *Catalysts* 2020, 10 (6), 680. <https://doi.org/10.3390/catal10060680>
- 64 Elisabeta-Irina Geană, Corina Teodora Ciucure, Victoria Artem, Constantin Apetrei. Wine varietal discrimination and classification using a voltammetric sensor array based on modified screen-printed electrodes in conjunction with chemometric analysis, *Microchemical Journal*, 159, 2020, 105451. <https://doi.org/10.1016/j.microc.2020.105451>
- 65 Geană E-I, Ciucure CT, Apetrei C. Electrochemical Sensors Coupled with Multivariate Statistical Analysis as Screening Tools for Wine Authentication Issues: A Review. *Chemosensors*. 2020; 8(3):59. <https://doi.org/10.3390/chemosensors8030059>
- 66 Gunache (Roșca), R.O.; Apetrei, C. Estimation of Active Compounds Quantity from Pharmaceuticals Based on Ginkgo biloba. *Chemosensors* 2020, 8, 110. <https://doi.org/10.3390/chemosensors8040110>
- 67 Dinu, A.; Apetrei, C. Voltammetric Determination of Phenylalanine Using Chemically Modified Screen-Printed Based Sensors. *Chemosensors* 2020, 8, 113. <https://doi.org/10.3390/chemosensors8040113>
- 68 Bounegru, A.V.; Apetrei, C. Development of a Novel Electrochemical Biosensor Based on Carbon Nanofibers–Gold Nanoparticles–Tyrosinase for the Detection of Ferulic Acid in Cosmetics. *Sensors* 2020, 20, 6724. <https://doi.org/10.3390/s20236724>
- 69 Bounegru, A.V.; Apetrei, C. Voltamperometric Sensors and Biosensors Based on Carbon Nanomaterials Used for Detecting Caffeic Acid—A Review. *Int. J. Mol. Sci.* 2020, 21, 9275. <https://doi.org/10.3390/ijms21239275>
- 70 Geană, E.-I, Artem, V., Apetrei, C. Discrimination and classification of wines based on polypyrrole modified screen-printed carbon electrodes coupled with multivariate data analysis. *Journal of Food Composition and Analysis*, 96, 2021, 103704, <https://doi.org/10.1016/j.jfca.2020.103704>
- 71 Dăscălescu, D.; Apetrei, C. Nanomaterials Based Electrochemical Sensors for Serotonin Detection: A Review. *Chemosensors* 2021, 9, 14. <https://doi.org/10.3390/chemosensors9010014>
- 72 Munteanu, I.G.; Apetrei, C. Analytical Methods Used in Determining Antioxidant Activity: A Review. *Int. J. Mol. Sci.* 2021, 22, 3380. <https://doi.org/10.3390/ijms22073380>

- 73 Bounegru AV, Apetrei C. Laccase and Tyrosinase Biosensors Used in the Determination of Hydroxycinnamic
Acids. International Journal of Molecular Sciences. 2021; 22(9):4811. <https://doi.org/10.3390/ijms22094811>
- 74 Gunache, R.O.; Apetrei, C. Determination of Diosmin in Pharmaceutical Products with Chemically Modified Voltammetric Sensors. Int. J. Mol. Sci. 2021, 22, 7315. <https://doi.org/10.3390/ijms22147315>
- 75 Dinu, A.; Apetrei, C. Development of Polypyrrole Modified Screen-Printed Carbon Electrode Based Sensors for Determination of L-Tyrosine in Pharmaceutical Products. Int. J. Mol. Sci. 2021, 22, 7528. <https://doi.org/10.3390/ijms22147528>
- 76 Dinu, A.; Apetrei, C. Development of a Novel Sensor Based on Polypyrrole Doped with Potassium Hexacyanoferrate (II) for Detection of L-Tryptophan in Pharmaceuticals. Inventions 2021, 6, 56. <https://doi.org/10.3390/inventions6030056>
- 77 Munteanu, I.-G.; Apetrei, C. Electrochemical Determination of Chlorogenic Acid in Nutraceuticals Using Voltammetric Sensors Based on Screen-Printed Carbon Electrode Modified with Graphene and Gold Nanoparticles. Int. J. Mol. Sci. 2021, 22, 8897. <https://doi.org/10.3390/ijms22168897>
- 78 Bounegru, A.V.; Apetrei, C. Development of a Novel Electrochemical Biosensor Based on Carbon Nanofibers–Cobalt Phthalocyanine–Laccase for the Detection of p-Coumaric Acid in Phytoproducts. Int. J. Mol. Sci. 2021, 22, 9302. <https://doi.org/10.3390/ijms22179302>
- 79 Gunache, R.O.; Bounegru, A.V.; Apetrei, C. Determination of Atorvastatin with Voltammetric Sensors Based on Nanomaterials. Inventions 2021, 6, 57. <https://doi.org/10.3390/inventions6030057>
- 80 Dăscălescu, D.; Apetrei, C. Voltammetric Determination of Levodopa Using Mesoporous Carbon—Modified Screen-Printed Carbon Sensors. Sensors 2021, 21, 6301. <https://doi.org/10.3390/s21186301>
- 81 Bounegru, A.V.; Apetrei, C. Evaluation of Olive Oil Quality with Electrochemical Sensors and Biosensors: A Review. Int. J. Mol. Sci. 2021, 22, 12708. <https://doi.org/10.3390/ijms222312708>
- 82 Munteanu, I.G.; Apetrei, C. A Review on Electrochemical Sensors and Biosensors Used in Chlorogenic Acid Electroanalysis. Int. J. Mol. Sci. 2021, 22, 13138. <https://doi.org/10.3390/ijms222313138>
- 83 Dinu, A.; Apetrei, C. A Review of Sensors and Biosensors Modified with Conducting Polymers and Molecularly Imprinted Polymers Used in Electrochemical Detection of Amino Acids: Phenylalanine, Tyrosine, and Tryptophan. Int. J. Mol. Sci. 2022, 23, 1218. <https://doi.org/10.3390/ijms23031218>
- 84 Dinu, A.; Apetrei, C. Quantification of Tyrosine in Pharmaceuticals with the New Biosensor Based on Laccase-Modified Polypyrrole Polymeric Thin Film. Polymers 2022, 14, 441. <https://doi.org/10.3390/polym14030441>
- 85 Munteanu, I.G.; Apetrei, C. A Review on Electrochemical Sensors and Biosensors Used in Assessing Antioxidant Activity. Antioxidants 2022, 11, 584. <https://doi.org/10.3390/antiox11030584>
- 86 Munteanu, I.G.; Apetrei, C. Tyrosinase-Based Biosensor—A New Tool for Chlorogenic Acid Detection in Nutraceutical Formulations. Materials 2022, 15, 3221. <https://doi.org/10.3390/ma15093221>
- 87 Dinu, A.; Apetrei, C. Determination of Ascorbic Acid in Pharmaceuticals and Food Supplements with the New Potassium Ferrocyanide-Doped Polypyrrole-Modified Platinum Electrode Sensor. Chemosensors 2022, 10, 180. <https://doi.org/10.3390/chemosensors10050180>
- 88 Bounegru, A.V.; Apetrei, C. Simultaneous Determination of Caffeic Acid and Ferulic Acid Using a Carbon Nanofiber-Based Screen-Printed Sensor. Sensors 2022, 22, 4689. <https://doi.org/10.3390/s22134689>
- 89 Munteanu, I.G.; Apetrei, C. Assessment of the Antioxidant Activity of Catechin in Nutraceuticals: Comparison between a Newly Developed Electrochemical Method and Spectrophotometric Methods. Int. J. Mol. Sci. 2022, 23, 8110. <https://doi.org/10.3390/ijms23158110>
- 90 Dăscălescu, D.; Apetrei, C. Development of a Novel Electrochemical Biosensor Based on Organized Mesoporous Carbon and Laccase for the Detection of Serotonin in Food Supplements. Chemosensors 2022, 10, 365. <https://doi.org/10.3390/chemosensors10090365>
- 91 M. Calmuc, V.A. Calmuc, M. Arseni, I.A. Simionov, A. Antache, C. Apetrei, P.L. Georgescu, C. Iticescu. 2022, Identification and Characterization of Plastic Particles Found in the Lower Danube River. Scientific Papers. Series E. Land Reclamation, Earth Observation & Surveying, Environmental Engineering, Vol. XI, Print ISSN 2285-6064, 332-337.
- 92 Bounegru, A.V.; Apetrei, C. Studies on the Detection of Oleuropein from Extra Virgin Olive Oils Using Enzymatic Biosensors. Int. J. Mol. Sci. 2022, 23, 12569. <https://doi.org/10.3390/ijms232012569>
- 93 Munteanu, I.G.; Grădinaru, V.R.; Apetrei, C. Sensitive Detection of Rosmarinic Acid Using Peptide-Modified Graphene Oxide Screen-Printed Carbon Electrode. Nanomaterials 2022, 12, 3292. <https://doi.org/10.3390/nano12193292>
- 94 Munteanu, I.G.; Grădinaru, V.R.; Apetrei, C. Development of a Chemically Modified Sensor Based on a Pentapeptide and Its Application for Sensitive Detection of Verbascoside in Extra Virgin Olive Oil. Int. J. Mol. Sci. 2022, 23, 15704. <https://doi.org/10.3390/ijms232415704>
- 95 Munteanu, I.G.; Apetrei, C. Classification and Antioxidant Activity Evaluation of Edible Oils by Using Nanomaterial-Based Electrochemical Sensors. Int. J. Mol. Sci. 2023, 24, 3010. <https://doi.org/10.3390/ijms24033010>

- 96 Bounegru, A.V.; Apetrei, C. Tyrosinase Immobilization Strategies for the Development of Electrochemical Biosensors—A
Review. *Nanomaterials* 2023, 13, 760. <https://doi.org/10.3390/nano13040760>
- 97 Geana, E.-I.; Ciucure, C.T.; Apetrei, I.M.; Clodoveo, M.L.; Apetrei, C. Discrimination of Olive Oil and Extra-Virgin Olive Oil
from Other Vegetable Oils by Targeted and Untargeted HRMS Profiling of Phenolic and Triterpenic Compounds
Combined with Chemometrics. *Int. J. Mol. Sci.* 2023, 24, 5292. <https://doi.org/10.3390/ijms24065292>
- 98 Roșca, R.O.; Bounegru, A.V.; Apetrei, C. Quantification of Statins in Pharmaceutical Products Using Screen-Printed
Sensors Based of Multi-Walled Carbon Nanotubes and Gold Nanoparticles. *Inventions* 2023, 8, 111.
<https://doi.org/10.3390/inventions8050111>

Data
11.03.2024

Semnătura
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