

## Îndeplinirea criteriilor de ABILITARE/ PROFESOR, domeniul CHIMIE

Conf. dr. APETREI CONSTANTIN

### 1. Activitatea didactică și profesională (A1)

1	Activitatea didactică și profesională (A1)	1.1 Cărți sau capitole de carte	Profesor minim 3 ; Conferențiar minim 1	1.1.1. Profesor minim 1 prim autor	3
---	--	---------------------------------	---	------------------------------------	---

#### 1.1 Cărți sau capitole de carte (A1.1)

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. In L. Lvova, D. Kirsanov, A. Legin, C. Di Natale, **Multisensor Systems for Chemical Analysis - Materials and Sensors**, Pan Stanford Publishing, 2013, pp. 139-179.

ISBN hardcover: 9789814411158; ISBN ebook version: 9789814411165.

<http://www.panstanford.com/books/9789814411158.html>

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. Gonzalez 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](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**, Editori 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, In **Electronic Nose and Tongue in Food Science**, Editor M. L. Rodriguez-Mendez, Elsevier, 2015 (invitat, *in press*).

7. C. Apetrei, I. M. Apetrei, Chemical composition of corn oil, In **Corn and Coconut Oil: Antioxidant Properties, Uses and Health Benefits**, Editor C. Apetrei, Nova Publishers, 2015 (invitat, *in press*).

8. I. M. Apetrei, C. Apetrei, Quality analyses and authentication of coconut oil, In **Corn and Coconut Oil: Antioxidant Properties, Uses and Health Benefits**, Editor C. Apetrei, Nova Publishers, 2015 (invitat, *in press*).

3 capitole - prim autor

A1=8×3=24      Criteriu îndeplinit

## 2. Activitatea de cercetare (A2)

2	Activitatea de cercetare (A2)	2.1 Articole în reviste cotate ISI Thomson Reuters	Minim 35 articole pentru Profesor / CS I dintre care 23 în reviste internaționale *)	Factorul de impact cumulativ al articolelor publicate, minim 40 și autor principal/corespondent pe minim 10 articole		1	
			Minim 18 articole pentru Conferențiar / CS II din care 12 în reviste internaționale	Factorul de impact cumulativ al articolelor publicate, minim 18			
		Brevete de invenție și inovație	Brevete **) ***)	2.3.1	***) internaționale	10	
				2.3.2	***) naționale	1	
		2.2 Granturi/proiecte câștigate prin competiție	2.3.1	Director responsabil pentru Profesor / CS I - Minim 1	2.3.1.1	naționale	4
			2.3.2	Membri în echipă pentru Profesor / CS I - Minim 1; pentru Conferențiar/CSII - Minim 1	2.4.2.1	naționale	2

### 2.1 Articole în reviste cotate ISI Thomson Reuters

Nr. crt		FI
1*	<b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.snb.2004.04.047">doi:10.1016/j.snb.2004.04.047</a>	3,84
2	Arrieta, A.A., <b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.electacta.2004.05.010">doi:10.1016/j.electacta.2004.05.010</a>	4,086
3	Casilli, S., De Luca, M., <b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.apsusc.2004.11.002">doi:10.1016/j.apsusc.2004.11.002</a>	2,538
4*	<b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.snb.2005.03.041">doi:10.1016/j.snb.2005.03.041</a>	3,84
5	Parra, V., Arrieta, A.A., Fernández-Escudero, J.A., García, H., <b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.snb.2005.08.040">doi:10.1016/j.snb.2005.08.040</a>	3,84
6*	<b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.colsurfa.2005.10.069">doi:10.1016/j.colsurfa.2005.10.069</a>	2,354
7*	<b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.electacta.2006.09.014">doi:10.1016/j.electacta.2006.09.014</a>	4,086
8*	<b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.snb.2006.04.091">doi:10.1016/j.snb.2006.04.091</a>	3,84

9	Rodríguez-Méndez, M.L., <b>Apetrei, C.</b> , 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, <i>IEEE International Symposium on Industrial Electronics</i> , art. no. 4375050, pp. 2782-2787, doi: <a href="https://doi.org/10.1109/ISIE.2007.4375050">10.1109/ISIE.2007.4375050</a>	0
10	Rodríguez-Méndez, M.L., <b>Apetrei, C.</b> , de Saja, J.A., 2008, Evaluation of the polyphenolic content of extra virgin olive oils using an array of voltammetric sensors, <i>Electrochimica Acta</i> 53 (20), pp. 5867-5872, doi: <a href="https://doi.org/10.1016/j.electacta.2008.04.006">10.1016/j.electacta.2008.04.006</a>	4,086
11	Rodríguez-Méndez, M.L., Parra, V., <b>Apetrei, C.</b> , Villanueva, S., Gay, M., Prieto, N., Martínez, J., De Saja, J.A., 2008, Electronic tongue based on voltammetric electrodes modified with materials showing complementary electroactive properties. Applications, <i>Microchimica Acta</i> 163 (1-2), pp. 23-31, DOI: <a href="https://doi.org/10.1007/s00604-007-0907-8">10.1007/s00604-007-0907-8</a> , <a href="http://link.springer.com/article/10.1007%2Fs00604-007-0907-8">http://link.springer.com/article/10.1007%2Fs00604-007-0907-8</a>	3,719
12	Rodríguez-Méndez, M.L., <b>Apetrei, C.</b> , 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, <i>Sensors and Actuators, B: Chemical</i> 141 (2), pp. 625-633, doi: <a href="https://doi.org/10.1016/j.snb.2009.06.018">10.1016/j.snb.2009.06.018</a>	3,84
13	Rodríguez-Méndez, M.L., Gay, M., <b>Apetrei, C.</b> , 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, <i>Electrochimica Acta</i> 54 (27), pp. 7033-7041, doi: <a href="https://doi.org/10.1016/j.electacta.2009.07.024">10.1016/j.electacta.2009.07.024</a>	4,086
14*	<b>Apetrei, C.</b> , 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, <i>Analytica Chimica Acta</i> 663, pp. 91-97, doi: <a href="https://doi.org/10.1016/j.aca.2010.01.034">10.1016/j.aca.2010.01.034</a>	4,517
15	Stoica, M., Cârâc, G., <b>Apetrei, C.</b> , Cantaragiu, A.M., 2010, Electrochemical study of stainless steel surfaces in biodegradable biocides, <i>Journal of Optoelectronics and Advanced Materials</i> 12, pp. 919-922, <a href="http://joam.inoe.ro/index.php?option=magazine&amp;op=view&amp;idu=2435&amp;catid=49">http://joam.inoe.ro/index.php?option=magazine&amp;op=view&amp;idu=2435&amp;catid=49</a>	0,563
16	Gay, M., <b>Apetrei, C.</b> , 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, <i>Electrochimica Acta</i> 55, pp. 6782–6788, doi: <a href="https://doi.org/10.1016/j.electacta.2010.05.090">10.1016/j.electacta.2010.05.090</a>	4,086
17*	<b>Apetrei, C.</b> , 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, <i>Biosensors and Bioelectronics</i> 26, pp. 2513-2519, doi: <a href="https://doi.org/10.1016/j.bios.2010.10.047">10.1016/j.bios.2010.10.047</a>	6,451
18	Pavinatto, F.J., Fernandes E.G.R., Alessio P., Constantino C.J.L., de Saja J.A., Zucolotto V., <b>Apetrei C.</b> , Oliveira O.N. Jr., M.L. Rodriguez-Mendez, 2011, Optimized architecture for Tyrosinase-containing Langmuir-Blodgett films to detect pyrogallol, <i>Journal of Materials Chemistry</i> , 21: 4995-5003, <a href="http://dx.doi.org/10.1039/c0jm03864d">http://dx.doi.org/10.1039/c0jm03864d</a>	6,626
19*	<b>Apetrei, C.</b> , 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, <i>Sensors</i> , 11, pp. 328-1344, doi: <a href="https://doi.org/10.3390/s110201328">10.3390/s110201328</a>	2,048
20*	<b>Apetrei, C.</b> , 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, <i>Electrochimica Acta</i> , 56, pp. 8919-8925, doi: <a href="https://doi.org/10.1016/j.electacta.2011.07.127">10.1016/j.electacta.2011.07.127</a>	4,086
21*	<b>Apetrei, C.</b> , Nieto, M., Rodríguez-Méndez, M.L., de Saja, J.A., 2011, Development of lutetium bisphthalocyanine/carbon nanotube Langmuir-Blodgett films. Sensing properties, <i>Journal of Porphyrins &amp; Phthalocyanines</i> , 15, pp. 908-917, DOI No: <a href="https://doi.org/10.1142/S108842461100377X">10.1142/S108842461100377X</a>	1,364
22	Ghasemi-Varnamkhasti, M., Rodríguez-Méndez M.L., Mohtasebi, S.S., <b>Apetrei, C.</b> , Lozano, J., Ahmadi, H., Razavi, S.H., de Saja, J.A., 2012, Monitoring the aging of beers using a bioelectronic tongue, <i>Food Control</i> , 25, pp. 216-224, doi: <a href="https://doi.org/10.1016/j.foodcont.2011.10.020">10.1016/j.foodcont.2011.10.020</a>	2,819
23	Ghasemi-Varnamkhasti, M., Mohtasebi, S.S., Rodriguez-Mendez, M.L., Lozano, J., Razavi, S.H., Ahmadi, H., <b>Apetrei, C.</b> , 2012, Classification of non alcoholic beer based on aftertaste sensory evaluation by chemometric tools, <i>Expert Systems With Application</i> , 39, pp. 4315-	1,965

	4327, <a href="https://doi.org/10.1016/j.eswa.2011.09.101">doi:10.1016/j.eswa.2011.09.101</a>	
24*	Apetrei, I.M., Rodríguez-Méndez M.L., <b>Apetrei, C.</b> , 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, <a href="https://doi.org/10.1016/j.foodres.2011.10.034">doi:10.1016/j.foodres.2011.10.034</a>	3,05
25	F. Matemadombo, <b>C. Apetrei</b> , T. Nyokong, M.L. Rodríguez-Méndez, J.A. de Saja, 2012, Comparison of carbon screen printed and disk electrodes in the detection of antioxidants using CoPc derivatives, <i>Sensors and Actuators, B: Chemical</i> , 166-167, pp. 457-466, <a href="http://dx.doi.org/10.1016/j.snb.2012.02.088">http://dx.doi.org/10.1016/j.snb.2012.02.088</a>	3,84
26*	<b>Apetrei, C.</b> , 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, <a href="http://dx.doi.org/10.1016/j.foodres.2012.06.010">http://dx.doi.org/10.1016/j.foodres.2012.06.010</a>	3,05
27*	<b>Apetrei, C.</b> , De Saja, J.A., Rodriguez-Mendez, M.L., 2012, Nanostructured vs. carbonaceous biosensors: Comparative studies for detection of phenolic compounds, BIODEVICES 2012 - Proceedings of the International Conference on Biomedical Electronics and Devices , pp. 104-109, <a href="http://www.scitepress.org/DigitalLibrary/Index/DOI/10.5220/0003716701040109">http://www.scitepress.org/DigitalLibrary/Index/DOI/10.5220/0003716701040109</a>	0
28*	<b>Apetrei, C.</b> ; 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, <i>Catalysts</i> , 2, 517-531, doi: <a href="https://doi.org/10.3390/catal2040517">10.3390/catal2040517</a>	0
29*	Apetrei, I.M., Rodriguez-Mendez, M.L., <b>Apetrei, C.</b> , De Saja, J.A., 2013, Enzyme sensor based on carbon nanotubes/cobalt(II) phthalocyanine and tyrosinase used in pharmaceutical analysis, <i>Sensors and Actuators, B: Chemical</i> , 177 , pp. 138-144, <a href="http://dx.doi.org/10.1016/j.snb.2012.10.131">http://dx.doi.org/10.1016/j.snb.2012.10.131</a>	3,84
30*	Apetrei, I.M., <b>Apetrei, C.</b> , 2013, Amperometric biosensor based on polypyrrole and tyrosinase for the detection of tyramine in food samples, <i>Sensors and Actuators B: Chemical</i> , 178, pp. 40-46, <a href="http://dx.doi.org/10.1016/j.snb.2012.12.064">http://dx.doi.org/10.1016/j.snb.2012.12.064</a>	3,84
31	N. Prieto, P. Oliveri, R. Leardi, M. Gay, <b>C. Apetrei</b> , M.L. Rodríguez-Méndez, J.A. de Saja, 2013, Application of a GA-PLS strategy for variable reduction of electronic tongue signals, <i>Sensors and Actuators B</i> 183, 52- 57, <a href="http://dx.doi.org/10.1016/j.snb.2013.03.114">http://dx.doi.org/10.1016/j.snb.2013.03.114</a>	3,84
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, <i>IEEE Sensors Journal</i> 13 (2013) 2548 - 2554; <a href="http://dx.doi.org/10.1109/JSEN.2013.2253317">http://dx.doi.org/10.1109/JSEN.2013.2253317</a>	1,852
33*	I.M. Apetrei, <b>C. Apetrei</b> , Amperometric tyrosinase based biosensors for serotonin detection, <i>Romanian Biotechnological Letters</i> 18(3) (2013) 8253-8262; <a href="http://www.rombio.eu/vol18nr3/Content.html">http://www.rombio.eu/vol18nr3/Content.html</a>	0,351
34*	<b>C. Apetrei</b> , C. Medina, J.A. de Saja, M.L. Rodriguez-Mendez, 2013, Electrochemical characterization of dilithium phthalocyanine carbonaceous electrodes, <i>Journal of Porphyrins and Phthalocyanines</i> 17 (2013) 522-528; DOI: 10.1142/S1088424613500430 <a href="http://www.worldscientific.com/doi/abs/10.1142/S1088424613500430?journalCode=jpp">http://www.worldscientific.com/doi/abs/10.1142/S1088424613500430?journalCode=jpp</a>	1,364
35*	I. M. Apetrei, <b>C. Apetrei</b> , Voltammetric e-tongue for the quantification of total polyphenol content in olive oils, <i>Food Research International</i> 54 (2013) 2075-2082; <a href="http://dx.doi.org/10.1016/j.foodres.2013.04.032">http://dx.doi.org/10.1016/j.foodres.2013.04.032</a>	3,05
36*	I. M. Apetrei, <b>C. Apetrei</b> , <i>Biosensor based on tyrosinase immobilized in single-walled carbon nanotubes modified glassy carbon electrode for epinephrine detection</i> , <i>International Journal of Nanomedicine</i> 8 (2013) 4391-4398; <a href="http://dx.doi.org/10.2147/IJN.S52760">http://dx.doi.org/10.2147/IJN.S52760</a>	4,195
37	X. Cetó, <b>C. Apetrei</b> , 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. <i>Electrochimica Acta</i> , 120 (2014) 180-186. <a href="http://dx.doi.org/10.1016/j.electacta.2013.12.079">http://dx.doi.org/10.1016/j.electacta.2013.12.079</a>	4,086
38	M. L. Rodriguez-Mendez, <b>C. Apetrei</b> , M. Gay, C. Medina-Plaza, J. A. de Saja, S. Vidal, O. Aagaard, M. Ugliano, J. Wirth, V. Cheyner. Evaluation of oxygen exposure levels and polyphenolic content of red wines using an electronic panel formed by an electronic nose and an electronic tongue. <i>Food Chemistry</i> , 155 (2014) 91-97. <a href="http://dx.doi.org/10.1016/j.foodchem.2014.01.021">http://dx.doi.org/10.1016/j.foodchem.2014.01.021</a>	3,259
39	P. Alessio, <b>C. Apetrei</b> , 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. <i>J. Nanosci. Nanotechnol.</i> 14 (2014) 6754-6763. <a href="http://dx.doi.org/10.1166/jnn.2014.9355">http://dx.doi.org/10.1166/jnn.2014.9355</a>	1,339
40*	I. M. Apetrei, C. V. Popa (Ungureanu), <b>C. Apetrei</b> , D. Tutunaru, Biosensors based on graphene modified screen-printed electrodes for the detection of catecholamines, <i>Romanian</i>	0,351

	Biotechnological Letters 19(5) (2014) 9801-9809, <a href="http://www.rombio.eu/vol19nr5/19.pdf">http://www.rombio.eu/vol19nr5/19.pdf</a>	
41*	I. M. Apetrei, <b>C. Apetrei</b> , Study of Different Carbonaceous Materials as Modifiers of Screen-Printed Electrodes for Detection of Catecholamines, IEEE Sensors Journal 15 (2015) 3094-3101, <a href="http://dx.doi.org/10.1109/JSEN.2014.2335534">http://dx.doi.org/10.1109/JSEN.2014.2335534</a>	1,852
42*	I.M. Apetrei, <b>C. Apetrei</b> , Detection of virgin olive oil adulteration using a voltammetric e-tongue, Computers and Electronics in Agriculture 108 (2014) 148–154, <a href="http://dx.doi.org/10.1016/j.compag.2014.08.002">http://dx.doi.org/10.1016/j.compag.2014.08.002</a>	1,486
43*	I.M. Apetrei, <b>C. Apetrei</b> , 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, <a href="http://dx.doi.org/10.1016/j.jfoodeng.2014.09.036">http://dx.doi.org/10.1016/j.jfoodeng.2014.09.036</a>	2,576
	<b>43 articole ISI din care 40 în reviste internaționale</b>	<b>43</b>
	<b>Factorul de impact (JCR 2014) cumulativ al articolelor publicate</b>	<b>125,901</b>
	<b>Autor principal* (număr articole)</b>	<b>25</b>

### Criteriu îndeplinit

## 2.2 Granturi/proiecte

### *Manager de proiect*

#### 1. MANAGER PROIECT INDIVIDUAL DE CERCETARE

TITLUL PROIECTULUI INDIVIDUAL: „Study of food freshness by means of multisensor systems”

SURSA DE FINANȚARE: Universidad de Valladolid, Scholarship for researchers from other Universities in Valladolid University, Spain

DURATA: 3.07.2008-3.09.2008

BUGET: 3600 €

#### 2. MANAGER PROIECT INDIVIDUAL DE CERCETARE

TITLUL PROIECTULUI INDIVIDUAL: „Biosensors based on nanostructured hybrid materials with applications in food industry and for environment quality monitoring ”

SURSA DE FINANȚARE: Uniunea Europeană

Contract POSDRU/89/1.5/S/52432, “ORGANIZAREA ȘCOLII POSTDOCTORALE DE INTERES NAȚIONAL "BIOTEHNOLOGII APLICATE" CU IMPACT ÎN BIOECONOMIA ROMÂNEASCĂ” (SPD-BIOTECH)

DURATA: 1.04.2011-31.12.2011

BUGET: 13000 €

#### 3. MANAGER PROIECT DE CERCETARE

TITLUL PROIECTULUI: „Development of an electronic system based on electrochemical sensors and biosensors for the control of biogenic amines”

SURSA DE FINANȚARE: UEFISCDI

TIPUL DE PROIECT: PN-II-ID-PCE-2011-3, Contract numărul 39/2011

DURATA: 1.01.2012-30.06.2015

BUGET: 1200255 lei

### *Membri în proiect*

Proiecte europene

1. TITLUL PROIECTULUI: "Integrated sensor system for the organoleptic characterisation of wine (Wine Panel Test)".

SURSA DE FINANȚARE: Project CRAFT-1999-70722. Programme de "Quality of Life and Management of living resources"

DURATA: 1.06.2002-2.06.2004

2. TITLUL PROIECTULUI: "Food Safety and Quality monitoring with Microsystems (GOODFOOD)"

SURSA DE FINANȚARE: Commission European. Information Society Technologies (IST)

Contract Nr. IST-1-508774-1 P. VI Marco Program.

DURATA: 1.01.2006-30.06.2006

Proiecte naționale (Spania)

1. TITLUL PROIECTULUI: "Diseno y construction de un sistema de sensores de olor, sabor y color para el analisis sensorial del aceite de oliva virgen"  
SURSA DE FINANȚARE: CICYT (AGL2001-2104-C02-01)  
DURATA: 1.07.2002-30.07.2004
2. TITLUL PROIECTULUI: "Influencia de las levaduras autoctonas en la vinificacion y crianza de vinos de D.O. Ribera del Duero: desarrollo de una metodologia analitica electronica para su evaluacion sensorial"  
SURSA DE FINANȚARE: INIA VIN02/006/C2/1  
DURATA: 1.07.2002-30.07.2005
3. TITLUL PROIECTULUI: "Aplicacion de un panel de cata electronico en la caracterizacion de vinos tintos tratados con sistemas alternatives a las barricas de roble"  
SURSA DE FINANȚARE: Junta de Castilla y Leon. ITA CyL (VA-16/2005-02-08).  
DURATA: 1.02.2005-30.07.2006
4. TITLUL PROIECTULUI: "Analisis sensorial y fisico-quimico de la presencia de piojillo y acaros en jamones"  
FUNDING ORGANIZATION: Centro Tecnologico CARTIF (Valladolid)  
DURATA: 1.06.2005-30.07.2006
5. TITLUL PROIECTULUI: "Diseno de un metodo analitico para la evaluacion de la frescura de peces (Tencas)"  
SURSA DE FINANȚARE: Junta de Castilla y Leon. ITA CyL (VA-052A06)  
DURATA: 18.07.2006-31.12.2008
6. TITLUL PROIECTULUI: "Estudio de sistemas amortiguadores basadas en espumas metalicas"  
SURSA DE FINANȚARE: ADE/J.C y L./ FEDER, Mecanizados Gines. Miranda de Ebro (Burgos), Spain  
DURATA: 1.06.2004-30.06.2005
7. TITLUL PROIECTULUI: "Componentes estructurales aeronauticos basados en espumas metalicas (diseno, fabricacion y ensayo)"  
SURSA DE FINANȚARE: ADE/JC y U PROFIT FIT-100100-2003-11, Mecanizados Gines.  
Miranda de Ebro (Burgos)  
DURATA: 1.07.2005-31.12.2005
8. TITLUL PROIECTULUI: "Evaluacion de vinos tratados con sistemas alternatives a la barrica de roble. Estudio de su evolucion organoleptica, mediante un panel de cata electronico"  
SURSA DE FINANȚARE: MEC AGL2006-05501/ALI  
DURATA: 1.10.2006-30.09.2009
9. TITLUL PROIECTULUI: "Desarrollo de una lengua bioelectronica especifica para el analisis de la maduracion de uvas"  
SURSA DE FINANȚARE: Spanish Ministry of Science (Code AGL2012-33535)  
DURATA: 1.01.2013-31.12.2015

Proiecte naționale (România)

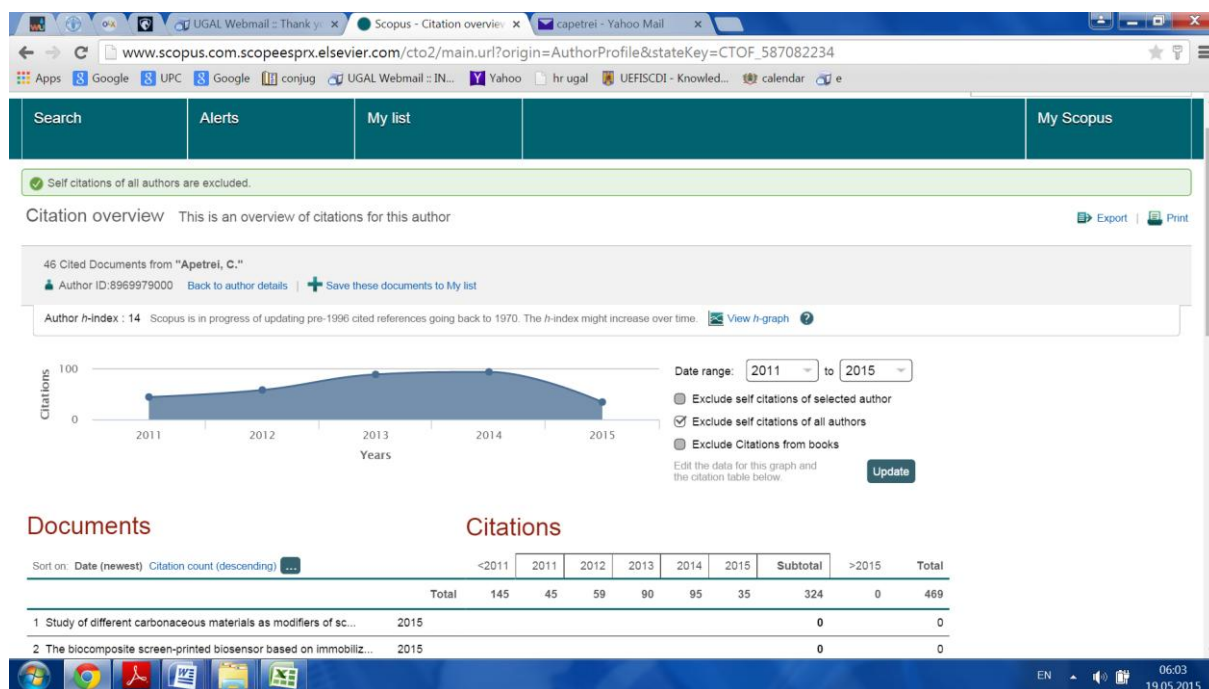
1. TITLUL: „Development of a novel class of light nanostructured polymeric composites with electrical and magnetic properties with applications in aero-spatial industry"  
SURSA DE FINANȚARE: Grant CNCSIS tip A COD 514 / theme 1/ 2006  
DURATA: 1.07.2006-31.12.2006
2. TITLE: „Obtaining of nickel nanowires electrodeposited on anodized nano-size cells structure of alumina"  
SURSA DE FINANȚARE: Grant CNCSIS, IDEI, ID\_2290/2008  
DURATA: 21.01.2009-31.12.2009

$$A2 = 43 \times 1 + (3 \times 4 + 13 \times 2) = 81$$

**Criteriu îndeplinit**

### A3. Citări in reviste ISI și BDI

3	Recunoașterea și impactul activității (A3)	3.1 Citări in reviste ISI și BDI	Minim 100 citari pentru Profesor / CS I ; Minim 30 citari pentru Conferentiar/CSII	3.1.1	ISI	0,5
				3.1.2	BDI	0,5



469 Citări - cu excluderea autotitarilor tuturor autorilor ([www.scopus.com](http://www.scopus.com)), 19.05.2015

$$A3=469 \times 0,5=234,5$$

**Criteriu îndeplinit**

3. Condiții minimale (A <sub>3</sub> )*					
Nr. crt.	Categoria				
	Domeniul de activitate	Condiții Conferentiar	Condiții CS II	Condiții Profesor	Condiții CS I
1	Activitatea didactică / profesională (A1) **	3	0	9	0
2	Activitatea de cercetare (A2)	Minim 20 puncte	Minim 20 puncte	Minim 41 puncte	Minim 41 puncte
3	Recunoașterea impactului activității (A3)	Minim 15 puncte	Minim 15 puncte	Minim 50 puncte	Minim 50 puncte
TOTAL		38 puncte	35 puncte	100 puncte	91 puncte

$$\text{Total } 24+81+234,5=339,5$$

**Criteriu îndeplinit**