

Autorul tezei de abilitare: Conf. Dr. Dr. Monica Florescu

Titlul tezei de abilitare: Abordări inovatoare pentru noi metodologii de diagnostic și terapie

Domeniul: Medicină

LISTA DE LUCRĂRI

LUCRĂRI RELEVANTE

1. N. Sandu, C. G. Chilom, M. David, **M. Florescu***, Evaluation of the interaction of levothyroxine with bovine serum albumin using spectroscopic and molecular docking studies, *Journal of Biomolecular Structure & Dynamics*, 2022. DOI: 10.1080/07391102.2020.1822919. FI. 5.235.
2. N. Cazacu, C. G. Chilom, M. David, **M. Florescu***, Conformational changes in the BSA-LT4 complex induced by the presence of vitamins: spectroscopic approach and molecular docking, *International Journal of Molecular Sciences*, 2022, 23, 4215. DOI: 10.3390/ijms23084215. FI. 6.208.
3. M. David, A. Serban, T.A. Enache, **M. Florescu***, Electrochemical quantification of levothyroxine at disposable screen-printed electrodes, *Journal of Electroanalytical Chemistry*, 2022, 911, 116240. DOI: 10.1016/j.jelechem.2022.116240. FI. 4.464.
4. N. Sandu, C. G. Chilom, **M. Florescu***, Molecular insights into binding mechanism of rutin to bovine serum albumin–Levothyroxine complex: Spectroscopic and molecular docking approaches, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 2022, 264, 120261. DOI: 10.1016/j.saa.2021.120261. FI. 4.098.
5. C. G. Chilom, M. David, **M. Florescu***, Monitoring biomolecular interaction between folic acid and bovine serum albumin, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2020, 230, 118074. DOI: 10.1016/j.saa.2020.118074. FI. 2.931.
6. M. David, A. Serban, C. Radulescu, A.F. Danet, **M. Florescu***, Bioelectrochemical evaluation of plant extracts with antioxidant capacity using gold nanozyme-based sensors, *Bioelectrochemistry*, 129, 2019, 124-134. DOI: 10.1016/j.bioelechem.2019.05.011. FI. 4.474.
7. M. David, A. Serban, C.V. Popa, **M. Florescu***, A Nanoparticle-Based Label-Free Sensor for Screening the Relative Antioxidant Capacity of Hydrosoluble Plant Extracts, *Sensors* 2019, 19(3), 590-605. DOI: 10.3390/s19030590. FI. 3.031.
8. C. G. Chilom, M. Bacalum, M. M. Stanescu, **M. Florescu***, Insight into the interaction of human serum albumin with folic acid: A biophysical study, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2018, 204, 648–656. DOI: 10.1016/j.saa.2018.06.093. FI. 2.931.
9. M. David, M. M. Barsan, C. M.A. Brett, and **M. Florescu***, Improved Glucose Label-Free Biosensor with Layer-by-Layer Architecture and Conducting Polymer poly(3,4-ethylenedioxythiophene), *Sensors and Actuators B: Chemical*, 255 (2018) 3227–3234. DOI: 10.1016/j.snb.2017.09.149. FI. 6.393.
10. **M. Florescu***, M. David, Tyrosinase-based biosensor for selective dopamine detection, *Sensors* 2017, 17, 1314-1329; DOI:10.3390/s17061314. FI. 2.677.

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Monica Florescu: Metode biofizice de detecție a substanțelor biologice active, Universitatea din București, 2007.

Monica Moldovan (Florescu): Contribuții la dezvoltarea unor bioinstrumente și aplicațiile lor în medicină, Universitatea Transilvania din Brașov, 2019.

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Cereri de brevet

1. M. Florescu, M. David, A. Serban, "Nanostructured electrochemical sensory platform, platform calibration method and method of use for portable, sensitive and selective detection of thyroxine content". RO135256/29.10.2021 (OSIM+EPO).
2. M. Florescu, M. David, A. Serban, "Process for electrochemical determination of the total antioxidant capacity of water-soluble vegetal extracts using a portable electrochemical platform with gold nanoparticles". RO133102/28.02.2019 (OSIM+EPO).

CĂRȚI / CAPITOLE DE CĂRȚI

Cărți

BOOKS

Cărți în edituri naționale - autor/coautor

1. **M. Florescu**, *Metode Biofizice de Analiza – Senzori si Biosenzori*, Editura Universitatii „Transilvania”, Brasov, 2008, ISBN 978-973-598-270-6. Nr. Pag. 114.
2. **M. Florescu**, A. Armaselu, N. Dihoiu, *Fizica Moleculara si Caldura*, Editura Universitatii „Transilvania”, Brasov, 2007, ISBN 978-973-598-069-6.
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1. **M. Florescu (Editor)**, *Biophysics for Biomedical and Environmental Sciences*, Transilvania University Press, Brasov, 2016, ISBN 978-606-19-0768-7.
2. **M Florescu (Editor)**, *Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences: Proceedings of IC-ANMBES 2010*, Transilvania University Press, Brasov, ISBN: 978-973-598-722-0.
3. M. Badea, **Florescu M., (Editors)**, *My first book on bioanalytical methods*, Ed. Universitatii Transilvania din Brasov, Brasov, 2010, 204 pg. ISBN 978-973-598-743-5.
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7. **M. Florescu**, C. Stihi, **(Editors)**, *Methods and techniques used in forest fires and environmental monitoring*, Transilvania University Press, Brasov, 2007, ISBN 978-973-598-156-3 (pp: 9-12, 29-43, 48-51, 56-74, 75-81, 82-92,). Nr. Pag. 120.

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2. **M Florescu**, V Raicu, I. Turcu (**Editors**), *Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences: Brasov, IC-ANMBES 2018*, Transilvania University Press, Brasov, ISSN 2360-3461, ISSN-L 2360-3461.
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Capitole de cărți

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4. V. Veregut, **M. Florescu**, M. Badea, Classic and modern methods for detection of serotonin, in *Sensing in Electroanalysis*. Volume 7 (K. Kalcher, R. Metelka, I. Švancara, K. Vytrás; Eds.). pp. 97-106, 2012, University Press Centre, Pardubice, Czech Republic. ISBN 978-80-7395-563-2 (printed); 978-80-7395-564-9 (on-line).

5. V Buzea, **M Florescu**, M Badea, Detection of heavy metals in biological samples through anodic stripping voltammetry, in *Sensing in Electroanalysis*. Volume 7 (K. Kalcher, R. Metelka, I. Švancara, K. Vytřas; Eds.). pp. 97–106, 2012, University Press Centre, Pardubice, Czech Republic. ISBN 978-80-7395-563-2 (printed); 978-80-7395-564-9 (on-line).
6. **M. Florescu**, Label free biosensors in human molecular diagnostics of diseases, pag. 135-147, in *Diagnostic Methods in Human Pathology*, Edited by Antonella Chesca, Transilvania University Press, Brasov, ISBN 978-606-19-0059-6, 2012.
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10. **M. Florescu**, Mass sensitive sensors and EQCM application in life sciences in *Bioanalytical Methods for Life Sciences. Chromathography. Sensors and Biosensors*, Eds. M. Badea, M. Florescu, Transilvania University Press, 2010. ISBN 978-973-598-723-7.
11. Švancara, **M. Florescu**, L. Baldrianová, E. Svobodová, M. Stočes, M. Badea, Carbon Paste Electrodes Modified with a Hydrolytic Product Obtained from an Antimony (III) Salt, in: *Sensing in Electroanalysis*, Vol. 5, Eds: K. Vytras, K. Kalcher, I. Svancara, University Press Centre, Pardubice, Czech Republic, 2010. ISBN 978-80-7395-348-5 (printed); 978-80-7395-349-2 (on-line).
12. **M. Florescu**, Dielectric spectroscopy and dielectrophoretic separation methods used in biomedical applications, in *Bioanalytical Methods for Life Sciences. Chromathography. Sensors and Biosensors*, Eds. M. Badea, M. Florescu, Transilvania University Press, 2010. ISBN 978-973-598-723-7.
13. M. Badea, **M. Florescu**, Gh. Coman, N. Taus, J.-L. Marty, Characterisation of electrochemical sensors and enzymatic methods used for ascorbic acid detection, in: *Sensing in Electroanalysis*, Vol. 4, Eds: K. Vytras, K. Kalcher, I. Svancara, University Press Centre, Pardubice, Czech Republic, 2009. ISBN 978-80-7395-9.
14. M. Badea, **M. Florescu**, Gh. Coman, A. Chesca, J.-L. Marty, Comparative Studies for Pollutants Detection Using Electrochemical Sensors and Enzyme-Based Biosensors in: *Sensing in Electroanalysis*, Vol. 4, Eds: K. Vytras, K. Kalcher, I. Svancara, University of Pardubice, 2009. ISBN 978-80-7395-9.
15. M. Badea, **M. Florescu**, Ghe. Coman, „Immunofluorescence” in *Analytical biotechnology. Principles and applications*, Editura Universitatii Transilvania Brasov, 2004, ISSN 1584-0506, ISBN 973-635-393-1. Nr. Pag. 7.

ARTICOLE ÎN REVISTE

Nr. Crt.	Articole în reviste cotate ISI Web of Science - Autor Principal	Factor de impact
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1	M. Florescu and A. Katerkamp, <i>Optimisation of a polymer membrane used in optical oxygen sensing</i> , Sensors and Actuators B 97 (2004) 39–44, DOI: 10.1016/S0925-4005(03)00603-8	2.083
2	M. Florescu and C.M.A. Brett, <i>Development and characterization of cobalt hexacyanoferrate modified carbon electrodes for electrochemical biosensors</i> , Analytical Letters Vol. 37, No. 5, pp. 871–886, 2004, DOI: 10.1081/AL-120030284	1.165
3	M. Florescu and C.M.A. Brett, <i>Development and evaluation of electrochemical enzyme biosensors based on carbon film electrodes</i> , Talanta 65 (2005) 306–312, doi: 10.1016/j.talanta.2004.07.003	2.391
4	M. Florescu , M. Barsan, R. Pauliukaite, C. M.A. Brett, <i>Development and application of oxysilane sol–gel electrochemical glucose biosensors based on cobalt hexacyanoferrate modified carbon film electrodes</i> , Electroanalysis 19, 2007, No. 2-3, 220 – 226, DOI: 10.1002/elan.200603714	2.949
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6	M. Florescu and C.M.A. Brett, <i>Nanostructured biosensors development for environmental measurements</i> , Journal of Optoelectronics and Advanced Materials Vol. 10, No. 3, March 2008, 713 - 716. WOS:000254588800050	0.577
7	M. Florescu , M. Badea, Untitled, Editorial Material, <i>Analytical Letters</i> , 2011, 44(8), 2841-2842. WOS:000298081200001	1.150
8	M. Florescu* , <i>Third International Conference: Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences (IC-ANMBES 2014) June 13-15, 2014, Brasov, Romania</i> , Analytical Letters , VOL. 49,(3), 2016, 331-334. DOI: 10.1080/00032719.2015.1070167	1.150
9	M. Florescu , W. Hu, <i>Evaluation of Si nanowire as biosensing device</i> , Journal of optoelectronics and advanced materials , Vol. 17, No. 7-8, July – August 2015, p. 1092 - 1098, ISSN: 1454 – 4164, eISSN: 1841-7132. WOS:000359967600030	0.383
10	C. Rădulescu, C. Stihî, M. Ilie, D. Lazurcă, R. Gruia, O. T. Olaru, O. Bute, I. D. Dulamă, R. Ştirbescu, S. Teodorescu, M. Florescu* , <i>Characterization of Phenolics in Lavandula angustifolia</i> , Analytical Letters , VOL. 50,(17), 2017, 2839–2850. http://dx.doi.org/10.1080/00032719.2016.1264409	1.150
11	M. Florescu* , <i>4th International Conference on Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences, IC-ANMBES 2016: June 29-July 1, 2016, Brasov - Romania</i> (http://icanmbes.unitbv.ro), Analytical Letters , VOL. 50 (17), 2017, 2661-2664. https://doi.org/10.1080/00032719.2017.1354869	1.206
12	M. Florescu* , M. David, <i>Tyrosinase-based biosensor for selective dopamine detection</i> , 2017, Sensors Journal , 2017, 17, 1314; doi:10.3390/s17061314.	2.677
13	M. Florescu* , C. Stihî, C. Rădulescu, I. D. Dulamă, O. Bute, R. Ştirbescu, S. Teodorescu, A. Serban, <i>Mineral composition of lavandula angustifolia flowers and hippophae rhamnoides fruits extracts</i> , Journal of Science	0.000

	and Arts , 4(41), 2017, 789-794. WOS:000418405300020	
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15	M. David, M. Badea, M. Florescu* , <i>Development and evaluation of sol-gel-based biosensors for cadmium ions detection</i> , Environmental Engineering and Management Journal , 17(2), 2018. WOS:000427084800008	1.186
16	C. G. Chilom, M. Bacalum, M. M. Stanescu, M. Florescu* , <i>Insight into the interaction of human serum albumin with folic acid: A biophysical study</i> , Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy , 2018, 204, 648–656. DOI: 10.1016/j.saa.2018.06.093	2.931
17	M. David, A. Serban, C. V. Popa, M. Florescu* , <i>A Nanoparticle-Based Label-Free Sensor for Screening the Relative Antioxidant Capacity of Hydrosoluble Plant Extracts</i> , Sensors 2019, 19(3), Article Number: 590. DOI: 10.3390/s19030590	3.031
18	M. David, A. Serban. C. Radulescu, A. F. Danet, M. Florescu* , <i>Bioelectrochemical evaluation of plant extracts and gold nanozyme-based sensors for total antioxidant capacity determination</i> , Bioelectrochemistry , 2019, 129, 124-134. DOI: 10.1016/j.bioelechem.2019.05.011	4.474
19	M. Florescu , L. Rogozea, <i>Comment from the Editors on the Special Issue: Advanced Analytical Methods in Clinical Diagnosis and Therapy</i> , Journal of Clinical Medicine , 2019, 8(11), DOI: 10.3390/jcm8111936	4.242
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6	L. Floroian, F. Sima, M. Florescu , M. Badea, A.C. Popescu, N. Serban, I.N. Mihailescu, <i>Double layered nanostructured composite coatings with bioactive silicate glass and polymethylmetacrylate for biomimetic implant application</i> , Journal of Electroanalytical Chemistry 648 (2010) 111–118, doi: 10.1016/j.jelechem.2010.08.005	2.733

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8	Barsan, M.M., David, M., Florescu, M. , Țugulea, L., Brett, C.M.A. <i>A new self-assembled layer-by-layer glucose biosensor based on chitosan biopolymer entrapped enzyme with nitrogen doped graphene</i> , Bioelectrochemistry , 99, pp. 46-52, 2014, Publisher: Elsevier, ISSN: 1567-5394. DOI: 10.1016/j.bioelechem.2014.06.004	4.172
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