

**Fișa de verificare a îndeplinirii standardelor minime necesare și obligatorii pentru conferirea abilității**  
**Comisia Ingineria Mediului**  
**Candidat, Conf. Dr. Delia-Maria GLIGOR**

Nr.crt.	Domeniu activităților	Tipul activităților	Categorii și restricții	Subcategorii	Indicatori	Punctaj
0	1	2	3	4	5	6
1	Activitatea didactică și profesională (A1)	1.1. Cărți/Capitole în cărți de specialitate /Monografii (cu ISBN)	<b>Profesor: minim 4</b>	internaționale	40 pct./100 pag.	
					<b>Delia Maria Gligor, Andra Măicăneanu, Applications of clay minerals in electrochemistry and wastewater treatment, In Clay: Types, Properties and Uses; Editors: Justin P. Humphrey and Daniel E. Boyd; Nova Science Publishers, Inc., New York, 2011, pp. 1-62. (ISBN 978-1-61324-449-4).</b>	<b>24,8</b>
				naționale	20 pct./100 pag.	
					1. Mihaela Ligia Ungureșan, Lorentz Jäntschi, <b>Delia Maria Gligor, Aplicații educaționale de chimie pe calculator</b> , Editura Mediamira, Cluj-Napoca, 2004, 247 pag. (ISBN 973-713-031-6).	<b>49,4</b>
					2. <b>Delia Maria Gligor, Mihaela Ligia Ungureșan, Noțiuni de electrochimie</b> , Editura Galaxia Gutenberg, Cluj-Napoca, 2009, 183 pag. (ISBN 978-973-141-208-5).	<b>36,6</b>
					3. Mihaela Ligia Ungureșan, <b>Delia Maria Gligor, General chemistry</b> , Editura Galaxia Gutenberg, Cluj-Napoca, 2012, 488 pag. (ISBN 978-973-141-448-5).	<b>97,6</b>
					4. <b>Delia Maria Gligor, Phenothiazine modified electrodes for mediated oxidation of NADH</b> , Editura Galaxia Gutenberg, Cluj-Napoca, 2012, 101 pag. (ISBN 978-973-141-446-1).	<b>20,2</b>
					5. <b>Delia Maria Gligor, Cristina Roșu, Elemente fundamentale de chimia mediului</b> , Editura Galaxia Gutenberg, Cluj-Napoca, 2012, 170 pag. (ISBN 978-973-141-503-1).	<b>34</b>
				<b>Total punctaj A1.1.</b>		<b>262,6</b>
		1.2. Manuale/Suport didactic			10 pct./100 pag. I. C. Popescu, L. Mureșan, A. Nicoară, G. L. Turdean, P. Illea, <b>D. Gligor, Lucrări practice de electrochimie</b> , Litografia Universității Babeș-Bolyai 2006, 50 pag.	<b>5</b>
				<b>Total punctaj A1.2.</b>		<b>5</b>
				<b>Total punctaj A1</b>		<b>267,6</b>

Nr.crt.	Domeniul activităților	Tipul activităților	Categorii și restricții	Subcategori	Indicatori	Factor de impact în anul publicării
0	1	2	3	4	5	6
2	Activitatea de cercetare (A2)	2.1. Articole <i>in extenso</i> în reviste cotate ISI Thomson Reuters		Profesor $40 \times \sum_i^n FI \geq 400$ cu $n \geq 11$	<p>1. Raluca C. Crețu, <b>Delia M. Gligor</b>, Laura Mureșan, Ionel Cătălin Popescu, Liana M. Mureșan, <i>Kinetic characterization of Prussian Blue-modified graphite electrodes for amperometric detection of hydrogen peroxide</i>, Journal of Applied Electrochemistry, <b>2006</b>, 36, 1327-1332.</p> <p>2. Vasilica Lates, <b>Delia Gligor</b>, Mircea Dărăbanțu, Liana M. Mureșan, <i>Electrochemical behavior of a new s-triazine based dendrimer</i>, Journal of Applied Electrochemistry, <b>2007</b>, 37, 631-636.</p> <p>3. Codruța Varodi, <b>Delia Gligor</b>, Liana M. Mureșan, <i>Carbon paste electrodes modified with Methylene Blue immobilized on a synthetic zeolite</i>, Revue Roumaine de Chimie, <b>2007</b>, 52, 81-88.</p> <p>4. Ossi Horovitz, <b>Delia Gligor</b>, Ionel Cătălin Popescu, <i>Correlations between electrochemical activity of phenothiazine derivatives modified graphite electrodes and some structural and molecular characteristics</i>, Revue Roumaine de Chimie, <b>2007</b>, 52, 823-828.</p> <p>5. <b>Delia Gligor</b>, Liana M. Mureșan, Anca Dumitru, Ionel Cătălin Popescu, <i>Electrochemical behavior of carbon paste electrodes modified with Methylene Green immobilized on two different X type zeolites</i>, Journal of Applied Electrochemistry, <b>2007</b>, 37, 261-267.</p> <p>6. Codruța Varodi, <b>Delia Gligor</b>, Andra Măicăneanu, Liana M. Mureșan, <i>Carbon paste electrode incorporating calcium-exchanged zeolite modified with Methylene Blue for amperometric detection of NADH</i>, Revista de Chimie, <b>2007</b>, 58, 890-894.</p> <p>7. <b>Delia Gligor</b>, Yusuf Dilgin, Ionel Cătălin Popescu, Lo Gorton, <i>Photoelectrocatalytic oxidation of NADH at a graphite electrode modified with a new polymeric phenothiazine</i>, Electroanalysis, <b>2009</b>, 21, 360-367</p> <p>8. <b>Delia Gligor</b>, Florina Bălaj, Andra Măicăneanu, Radu Gropeanu, Ion Grosu, Liana Mureșan, Ionel Cătălin Popescu, <i>Carbon paste electrodes modified with a new phenothiazine derivative adsorbed on zeolite and on mineral clay for NADH oxidation</i>, Materials Chemistry and Physics, <b>2009</b>, 11, 283-289.</p> <p>9. <b>Delia Gligor</b>, Yusuf Dilgin, Ionel Cătălin Popescu, Lo Gorton, <i>Poly-phenothiazine derivative-modified glassy carbon electrode for NADH electrocatalytic oxidation</i>, Electrochimica Acta, <b>2009</b>, 54, 3124-3128.</p> <p>10. Codruța Varodi, <b>Delia Gligor</b>, Levente Abodi, Liana Mureșan, <i>Comparative study of carbon paste electrodes modified with Methylene Blue- and Methylene Green-adsorbed on zeolite as amperometric sensors for H<sub>2</sub>O<sub>2</sub> detection</i>, Studia Universitas "Babeș-Bolyai", Chemia, <b>2009</b>, 3, 255-263.</p> <p>11. Alexia Bonnifet, <b>Delia Gligor</b>, Castelia Cristea, Liana M. Mureșan, <i>Electrochemical behavior and applications of phenothiazine derivatives based on bis-(10Hphenothiazin-3-yl)-methane</i>, Studia Universitas "Babeș-Bolyai", Chemia, <b>2009</b>, 1, 243-251.</p> <p>12. Castelia Cristea, Gabriela Cormos, <b>Delia Gligor</b>, Iudit Filip, Liana Muresan, Ionel Cătălin Popescu, <i>Electrochemical characterization of bis-(10Hphenothiazin-3-yl)-methane derivatives obtained by microwave assisted organic synthesis</i>, Journal of New Materials for Electrochemical Systems, <b>2009</b>, 12, 233-238.</p>	1,409 1,417 0,262 0,262 1,417 0,261 2,630 2,015 3,325 0,086 0,086 0,876

				<b>13.</b> Mihaela Ligia Ungureşan, <b>Delia Maria Gligor</b> , Numerical modelling and simulation of Koutecky-Levich equation for NADH electrocatalytic oxidation at graphite electrodes modified with a new polymeric phenothiazine, Indian Journal of Chemistry, <b>2009</b> , 48A, 206-210.	0,617
				<b>14.</b> Mihaela Ligia Ungureşan, <b>Delia Maria Gligor</b> , Francisc Dulf, Tiberiu Coloş, Analogical modelling and numerical simulation of the adsorption process for poly-phenothiazine formaldehyde on graphite electrodes, International Journal of Chemical Reactor Engineering, <b>2009</b> , 7.	0,733
				<b>15.</b> Mihaela Ligia Ungureşan, <b>Delia Maria Gligor</b> , Comparison between the experimentally and numerically modelled and simulated kinetic parameters corresponding to Michaelis - Menten equation, for NADH sensors based on polymeric phenothiazine modified electrodes, Asian Journal of Chemistry, <b>2010</b> , 22(1), 475-482.	0,247
				<b>16.</b> <b>Delia Gligor</b> , Izabell Crăciunescu, Ionel Cătălin Popescu, Lo Gorton, Influence of the electrode material on the electrochemical behavior of carbon paste electrodes modified with Meldola Blue and Methylene Green adsorbed on a synthetic zeolite, Electroanalysis, <b>2010</b> , 22(5), 509-512.	2,721
				<b>17.</b> <b>Delia Gligor</b> , Andrade Măicăneanu, Alain Walcarus, Iron-enriched natural zeolite modified carbon paste electrode for H <sub>2</sub> O <sub>2</sub> detection, Electrochimica Acta, <b>2010</b> , 55, 4050–4056.	3,650
				<b>18.</b> Didem Giray Dilgin, <b>Delia Gligor</b> , H. İsmet Gökçel, Zekerya Dursun, Yusuf Dilgin, Photoelectrocatalytic oxidation of NADH in a flow injection analysis system using a poly-hematoxylin modified glassy carbon electrode, Biosensors and Bioelectronics, <b>2010</b> , 26(2), 411–417.	5,361
				<b>19.</b> <b>Delia Gligor</b> , Codruţa Varodi, Liana Muresan, Graphite electrode modified with a new phenothiazine derivative and with carbon nanotubes for NADH electrocatalytic oxidation, Chemical and Biochemical Engineering Quarterly, <b>2010</b> , 24(2), 159-166.	0,483
				<b>20.</b> <b>Delia Maria Gligor</b> , Mihaela Ligia Ungureşan, Numerical modelling and simulation of Laviron treatment for poly-phenothiazine derivative-modified glassy carbon electrodes, Journal of Mathematical Chemistry, <b>2010</b> , 47(4), 1476-1482.	1,259
				<b>21.</b> <b>Delia Gligor</b> , Codruţa Varodi, Andrade Măicăneanu, Liana Maria Mureşan, Carbon nanotubes-graphite paste electrode modified with Cu(II)-exchanged zeolite for H <sub>2</sub> O <sub>2</sub> detection, Studia Universitas "Babeş-Bolyai", Chemia, <b>2010</b> , XLV, 2, TOM II, 293-302.	0,231
				<b>22.</b> Codruţa Varodi, Ocsana Axuc, Sorina Cioceră, <b>Delia Gligor</b> , Ionel Cătălin Popescu, Liana Maria Mureşan, Biosensor based on ascorbate oxidase for ascorbic acid determination, Revue Roumaine de Chemie, <b>2010</b> , 55(11-12), 859-864.	0,311
				<b>23.</b> Dan Rusu, Oana Băban, Ioan Hauer, <b>Delia Gligor</b> , Leontin David, Mariana Rusu, Synthesis and characterization of the potassium 11-tungstovanado (IV) phosphate, Revue Roumaine de Chimie, <b>2010</b> , 55(11-12), 843-850.	0,311
				<b>24.</b> Vasilica Lateş, <b>Delia Gligor</b> , Liana M. Mureşan, Ionel Cătălin Popescu, Comparative investigation of NADH electrooxidation at graphite electrodes modified with two new phenothiazine derivatives, Journal of Electroanalytical Chemistry, <b>2011</b> , 661, 192–197.	2,905
				<b>25.</b> Didem Giray Dilgin, <b>Delia Gligor</b> , H. İsmet Gökçel, Zekerya Dursun, Yusuf Dilgin, Glassy carbon electrode modified with poly-Neutral Red for photoelectrocatalytic oxidation of NADH, Microchimica Acta, <b>2011</b> , 173(3-4), 469-476.	3,033
				<b>26.</b> Yusuf Dilgin, Didem Giray Dilgin, Zekerya Dursun, H. İsmet Gökçel, <b>Delia Gligor</b> , Burcu Bayrak, Bensu Ertek, Photoelectrocatalytic determination of NADH in a flow injection system with electropolymerized Methylene Blue, Electrochimica Acta, <b>2011</b> , 56(3), 1138-1143.	3,832

				<p><b>27.</b> Mihaela-Ligia Ungureşan, Andrada Măicăneanu, Francisc-Vasile Dulf, Eva-Henrietta Dulf, <b>Delia Maria Gligor</b>, <i>Application of linear regression analysis for iron and copper removal process using natural zeolites</i>, Journal of Thermal Analysis and Calorimetry, <b>2012</b>, 110, 1293–1297.</p> <p><b>28.</b> <b>Delia Gligor</b>, Liviu Cosmin Cotet, Virginia Danciu, <i>Comparative study of two types of iron doped carbon aerogels for electrochemical applications</i>, Journal of New Materials for Electrochemical Systems, <b>2013</b>, 16, 97-101.</p> <p><b>29.</b> <b>Delia Gligor</b>, Alain Walcarius, <i>Glassy carbon electrode modified with a film of poly(Toluidine Blue O) and carbon nanotubes for nitrite detection</i>, Journal of Solid State Electrochemistry, <b>2014</b>, 18, 1519-1528.</p> <p><b>30.</b> Andrada Măicăneanu, Codruţa Varodi, Horea Bedlean, <b>Delia Gligor</b>, <i>Physical-chemical and electrochemical characterization of Fe-exchanged natural zeolite applied for obtaining of hydrogen peroxide amperometric sensors</i>, Geochemistry, <b>2014</b>, <i>o</i>f hydrogen peroxide amperometric sensors. Chemie der Erde – Geochemistry, (2014), <a href="http://dx.doi.org/10.1016/j.chemer.2014.02.005">http://dx.doi.org/10.1016/j.chemer.2014.02.005</a>.</p> <p><b>31.</b> Adrian Woiczchowski-Pop, <b>Delia Gligor</b>, Attila Bende, Codruţa Varodi, Elena Bogdan, Anamaria Terec, Ion Grosu, <i>Synthesis, structure, electrochemical behavior and electrochemical investigations on the assembling with pyrene of a novel C<sub>3</sub> cryptand</i>, Supramolecular Chemistry, <b>2014</b>, DOI: 10.1080/10610278.2014.904868.</p>	1,982
				<b>Total factor de impact</b>	<b>47,43</b>
				<b>Total punctaj A2.1.</b>	<b>1897,2</b>
<b>2.2.</b>	<b>Brevete de inventie</b>	Internaţional		FI echiv = 5,0	0
		năţional		FI echiv = 0,5 <b>1.</b> <b>Delia Maria Gligor</b> , Codruţa Mihaela Varodi, Sanda Andrada Măicăneanu, Liana Maria Mureşan, <i>Procedeu de obţinere a unui senzor amperometric pentru detecţia apei oxigenate, pe bază de electrod pastă de cărbune modificat cu un zeolit natural îmbogăţit cu cupru</i> , Brevet naţional nr. 128064/2013, OSIM	20
				<b>Total punctaj A2.2.</b>	<b>20</b>
<b>2.3.</b>	Articole în reviste şi volumele unor manifestări ştiinţifice, indexate în baze de date internaţionale ISI proceedings	<b>Profesor: minim 16</b>	5 puncte/lucrare	<p><b>1.</b> Mihaela Ungureşan, <b>Delia Gligor</b>, L. Jantschi, <i>Desulfurarea gazelor reziduale rezultate din procese industriale. Metode electrochimice</i>, Analele Univ. Oradea, Chimie, <b>2001</b>, VIII, 25-30.</p> <p><b>2.</b> Mihaela Ungureşan, <b>Delia Gligor</b>, L. Jantschi, <i>Desulfurarea gazelor reziduale rezultate din procese industriale. Metode chimice</i>, Analele Univ. Oradea, Chimie, <b>2001</b>, VIII, 19-24.</p> <p><b>3.</b> Lorentz Jantschi, <b>Delia Gligor</b>, Mihaela Ligia Ungureşan, <i>Acid-base titration numerical simulator</i>, Studia Univ. "Babeş-Bolyai", Phys., <b>2003</b>, XLVIII, 1, 278-284.</p> <p><b>4.</b> <b>Delia Gligor</b>, Liana Mureşan, Liviu Boboş, Ionel Cătălin Popescu, <i>Electrodeposition of CdS thin films</i>, Studia Univ. "Babeş-Bolyai", Chem., <b>2004</b>, XLIX, 2, 137-144.</p> <p><b>5.</b> <b>Delia Gligor</b>, Liana Mureşan, Ionel Cătălin Popescu, <i>Carbon paste electrodes incorporating methylene green-modified zeolite</i>, Acta Univ. Cibiniensis, Seria F Chemia, <b>2004</b>, 7, 29-35.</p> <p><b>6.</b> <b>Delia Gligor</b>, Lorentz Jäntschi, <i>Periodic system of elements database and it's applications</i>, Analele Univ. Oradea, Chimie, <b>2005</b>, XII, 180-194.</p> <p><b>7.</b> Vasilica Lateş, <b>Delia Gligor</b>, Liana Mureşan, I. C. Popescu, R. Gropeanu, I. Grosu, <i>Graphite electrodes modified with 3,7-di(m-aminophenyl)-10-ethyl-phenothiazine</i>, Studia Universitas "Babeş-Bolyai", Chemia, <b>2007</b>, LII, 1, 11-17.</p>	5

				<i>Recunoscut ISI</i>	
				<b>8.</b> Codruța Varodi, <b>Delia Gligor</b> , Liana M. Mureșan, <i>Modified carbon paste electrodes incorporating synthetic zeolites for amperometric detection of ascorbic acid</i> , Studia Universitas "Babeș-Bolyai", Chemia, <b>2007</b> , LII, 1, 109-117. Recunoscut ISI	5
				<b>9.</b> Castelia Cristea, Gabriela Cormoș, Luiza Găină, Luminița Silaghi-Dumitrescu, <b>Delia Gligor</b> , Liana Mureșan, Ionel Cătălin Popescu, <i>Microwave-assisted synthesis and electrochemical behaviour of phenothiazine-formaldehyde polymer derivative</i> , Studia Universitas "Babeș-Bolyai", Chemia, <b>2007</b> , 4, 23-31. Recunoscut ISI	5
				<b>10.</b> <b>Delia Gligor</b> , Elisabeth Csöregi, Ionel Cătălin Popescu, <i>Amperometric biosensor for ethanol based on a phenothiazine derivative modified carbon paste electrode</i> , Studia Universitas "Babeș-Bolyai", Chemia, <b>2008</b> , 1, 55-62. Recunoscut ISI	5
				<b>11.</b> <b>Delia Gligor</b> , Liana Mureșan, Ionel Cătălin Popescu, Castelia Cristea, Gabriela Cormoș, <i>Synthesis and electrochemical behaviour of bis-(10-ethylphenothiazinyl)-phenylmethane</i> , Studia Universitas "Babeș-Bolyai", Chemia, <b>2008</b> , 1, 15-21. Recunoscut ISI	5
				<b>12.</b> Mihaela Ligia Ungureșan, <b>Delia Gligor</b> , Francisc Dulf, <i>Numerical modelling and simulation of Lavor treatment for some phenothiazine modified graphite electrodes</i> , Proceeding ISI, IEEE Catalog Number: CFP08AQT-PRT, Mediamira Publishing House, <b>2008</b> , 16, 235-237.	5
				<b>13.</b> <b>Delia Gligor</b> , Mihaela Ligia Ungureșan, Francisc Dulf, <i>Systemic approach for numerical modelling and simulation of Koutecky-Levich equation for NADH electrocatalytic oxidation at graphite electrodes modified with a new polymeric phenothiazine</i> , Proceeding ISI, IEEE Catalog Number: CFP08AQT-PRT, Mediamira Publishing House, <b>2008</b> , 16, 238-241.	5
				<b>14.</b> Mihaela Ligia Ungureșan, <b>Delia Maria Gligor</b> , Francisc Dulf, Iulian O. Maga, Tiberiu Colosi, Mihail Abrudean, <i>Theoretical preliminaries associated to analogical modelling and numerical simulation of the adsorption process for poly-phenothiazine formaldehyde on graphite electrodes</i> , Proceedings CSCS-17, 17 <sup>th</sup> International Conference on Control Systems and Computer Science, București, 26-29 mai 2009, Editura Politehnica Press, <b>2009</b> , 2, 27-32	5
				<b>15.</b> Mihaela Ligia Ungureșan, Francisc-Vasile Dulf, Andra Măicăneanu, <b>Delia-Maria Gligor</b> , <i>Iron exchange on natural zeolites. Comparison of linear and non-linear regression analysis methods</i> , Proceeding ISI, IEEE Catalog Number: CFP010AQT-PRT, Mediamira Publishing House, <b>2010</b> , 435-438.	5
				<b>16.</b> Mihaela Ligia Ungureșan, <b>Delia-Maria Gligor</b> , <i>Effect of light irradiation and immobilization of carbon nanotubes on kinetic parameters corresponding to Michaelis - Menten equation, for NADH sensors based on phenothiazine graphite modified electrodes</i> , Proceeding ISI, IEEE Catalog Number: CFP010AQT-PRT, Mediamira Publishing House, <b>2010</b> , 429-434.	5
				<b>Total punctaj A2.3.</b>	<b>80</b>
<b>2.4.</b>	<b>Granturi/ proiecte câștigate prin competiție</b>	<i>Director/ responsabil Profesor minimum 2 (grant/ proiect/ contract)</i>	Internaționale 15 punkte/5000 Euro	<b>1.</b> <i>Modified electrodes for NADH electrocatalytic and photoelectrocatalytic oxidation</i> , proiect de cooperare bilaterală România-Turcia, ANCS, 2008-2010, 28676 RON = 6716 Euro.	20,148

				năționale 10 puncte/5000 Euro	<p><b>1.</b> Studiul comportării electrochimice a unor electrozi modificați cu derivați fenotiazinici, folosiți pentru obținerea de biosenzori amperometrici, ANSTI 2000-2001, 29750000 ROL.</p> <p><b>2.</b> Investigarea electrochimică a reacției de oxidare a NADH pe electrozi modificați cu derivați fenotiazinici adsorbii pe fosfat de zirconiu, CNCSIS AT 2002-2003, CNCSIS, 32400000 ROL.</p> <p><b>3.</b> Materiale de electrod avansate constituite din mediatori redox imobilizati pe schimbători de ioni solizi, CNCSIS AT, 66-2006, CNCSIS, 18000 RON.</p> <p><b>4.</b> Electrozi modificați cu zeoliți și argile pentru detecția bioelectrocatalitică a unor compuși de interes medical, CEEEX ET, cod 50/2006-2008, CNCSIS, 140000 RON.</p> <p><b>5.</b> Nanomateriale cu aplicații în electrocataliza mediată pe electrozi modificați, IDEI, ID_512 / 2007-2010, CNCSIS, 738380 RON.</p> <p>Total echivalent = 222792 Euro</p>	445,584
					<b>Total punctaj A2.4.</b>	<b>465,732</b>
					<b>Total punctaj A2</b>	<b>2462,932</b>
3	Recunoașterea și impactul activității	3.1. Citări în reviste ISI Thomson Reuters și BDI	<b>Profesor – minimum 30 30 citări</b>	3 puncte / citare	157 citări conform ISI Web of Knowledge la data de 28.05.2014	<b>471</b>
					<b>Total punctaj A3</b>	<b>471</b>

2. Condiții minime (Ai)			Punctaj obținut de candidat
Nr. crt.	Categorie	Profesor universitar	
1	Activitatea didactică / profesională (A1)	Minimum 210 puncte	<b>267,6 puncte</b>
2	Activitatea de cercetare (A2)	Minimum 500 puncte	<b>2462,932 puncte</b>
3	Recunoașterea impactului activității (A3)	Minimum 90 puncte	<b>471 puncte</b>
<b>TOTAL</b>		Minimum 800 puncte	<b>3201,532 puncte</b>

28.05.2014

Candidat,  
Conf. Dr. GLIGOR T. Delia-Maria