

LISTA DE LUCRĂRI COMPLETĂ

perioada 1998-2017

1. TEZĂ DE DOCTORAT

1. **Duțeanu Narcis**, Studii asupra performanțelor pilelor de combustie metanol/aer (oxigen) și borohidruură/aer (oxigen) echipate cu electrolit polimer solid, 2007

2. CĂRȚI, CAPITOLE DE CARTE ȘI ÎNDRUMĂTOARE PUBLICATE

- 1.- K. Scott, EH. Yu, MM. Ghangrekar, B. Erable, **Duțeanu Narcis**, Comprehensive Renewable Energy – Chapter: Biological and Microbial Fuel Cells, Editura Elsevier, 2012, ISBN 9780080878720.
2. **Duțeanu Narcis**, Adriana Balasoiu, Prita Chatterjee, Makarand Ghangrekar, Chapter 1: A basic overview of fuel cells, in book Organic - Inorganic Composite Polymer Electrolyte Membranes: Preparation, Properties and Fuel Cells Applications, Springer, In press
- 3.- **Duțeanu Narcis**, Pile de combustie directă a metanolului echipate cu electrolit polimer solid, Editura "Politehnica" din Timisoara, 2008, ISBN 978-973-625-780-3.

3. ARTICOLE ȘTIINȚIFICE / STUDII PUBLICATE ÎN REVISTE

a. Articole științifice publicate în reviste de specialitate de circulație internațională indexate în Thomson Reuters

1. Gabor, A., C.M. Davidescu, A. Negrea, M. Ciopec, I. Grozav, P. Negrea, and **Duțeanu Narcis**, Optimizing the lanthanum adsorption process onto chemically modified biomaterials using factorial and response surface design. Journal of environmental management, 2017. In press.

2. Vaida, M., **Duțeanu Narcis**, and I. Grozescu, The effects of doping on the structural, optical and electric properties of Zn₄Sb₃ material. Journal of the Serbian Chemical Society, 2016. 81(3): p. 323-332.
3. Hulka, I., V.A. Serban, D. Utu, **Duțeanu Narcis**, A. Pascu, I. Roata, and I. Maior, WEAR RESISTANCE OF LASER CLADDING NiCrBSi COMPOSITE COATINGS. Revista Romana De Materiale-Romanian Journal of Materials, 2016. 46(1): p. 49-54.
4. Gabor, A., C.M. Davidescu, A. Negrea, M. Ciopec, C. Muntean, **Duțeanu Narcis**, and P. Negrea, Sorption properties of Amberlite XAD 7 functionalized with sodium beta-glycerophosphate. Pure and Applied Chemistry, 2016. 88(12): p. 1143-1154.
5. Voicu, A., **Duțeanu Narcis**, A. Raduta, and N. Vaszilcsin, Influence of Electrochemical Treatment over Cellular Adherence onto the Surface of Titanium Surgical Implants. International Journal of Electrochemical Science, 2015. 10(7): p. 5624-5638.
6. Vaida, M., **Duțeanu Narcis**, and I. Grozescu, Preparation and characterization of the thermoelectric material Zn₄Sb₃. Journal of Optoelectronics and Advanced Materials, 2015. 17(7-8): p. 1021-1025.
7. Marian, E., T. Jurca, B. Tita, P. Sfirloaga, D. Tita, and **Duțeanu Narcis**, Comparative Study of Teophylline - Active Substance and Commercial Drug - Using the Physico-chemical Methods. Revista De Chimie, 2015. 66(4): p. 477-481.
8. Jurca, T., E. Marian, B. Tita, G. Bandur, D. Tita, and **Duțeanu Narcis**, Comparative Studies of Pentoxifylline - Active Substance and Tablets. Revista De Chimie, 2015. 66(8): p. 1155-1158.
9. Ion, V.A., O.C. Parvulescu, T. Dobre, **Duțeanu Narcis**, and S.G. Nitu, Modelling of Thermal Desorption of Volatile Organic Compounds from Activated Carbon. Revista De Chimie, 2015. 66(5): p. 703-706.
10. Hulka, I., V.A. Serban, D. Utu, **Duțeanu Narcis**, A. Pascu, and I.C. Roata, CORROSION RESISTANCE OF LASER CLADDED NiCrBSi COMPOSITE COATINGS. Studia Universitatis Babes-Bolyai Chemia, 2015. 60(4): p. 173-184.
11. Dan, M.L., N. Vaszilcsin, and **Duțeanu Narcis**, ELECTROCHEMICAL BEHAVIOR OF CaBaCo₂O₅ +/-delta IN NEUTRAL AQUEOUS SOLUTION. Studia Universitatis Babes-Bolyai Chemia, 2015. 60(4): p. 165-172.

12. Popa, A., M. Ciopec, A. Negrea, L. Lupa, P. Negrea, C.M. Davidescu, G. Ilia, and **Duțeanu Narcis**, Use of styrene-divinylbenzene grafted with aminoethylaminomethyl groups and various ionic liquids in the removal process of thallium and strontium. *Pure and Applied Chemistry*, 2014. 86(11): p. 1741-1753.
13. Marian, E., T. Jurca, and **Duțeanu Narcis**, Comparative Study of Metals in *Hypericum Perforatum*, *Hypericum Maculatum* and *Hypericum Tea* by Microwave Digestion-ICP-OES. *Revista De Chimie*, 2013. 64(2): p. 161-164.
14. Celik, I., M. Akkurt, H. Gezegen, M.M. Uremis, and **Duțeanu Narcis**, CCDC 961833: Experimental Crystal Structure Determination. *Cambridge Structural Database*, 2013.
15. Celik, I., M. Akkurt, H. Gezegen, M.M. Uremis, and **Duțeanu Narcis**, 2-[1-(4-Bromo-phen-yl)-3-hydroxy-3-(4-methoxy-phen-yl)prop-yl]cyclohexanol. *Acta crystallographica. Section E, Structure reports online*, 2013. 69(Pt 7): p. o1091-2.
16. Dan, M., N. Vaszilcsin, A. Kellenberger, and **Duțeanu Narcis**, ELECTROCHEMICAL BEHAVIOUR OF YBaCo4O7 IN NEUTRAL AQUEOUS SOLUTION. *Studia Universitatis Babes-Bolyai Chemia*, 2011. 56(1): p. 119-127.
17. Dan, M., V. Pralong, N. Vaszilcsin, A. Kellenberger, and **Duțeanu Narcis**, Electrochemical behaviour of YBaCo4O7 in alkaline aqueous solution. *Journal of Solid State Electrochemistry*, 2011. 15(6): p. 1227-1233.
18. Ghangrekar, M.M., V.B. Shinde, and **Duțeanu Narcis**, Effect of Wastewater Characteristics and Biomass Growth in Cathode Compartment on Performance of Membrane-less Microbial Fuel Cell. *Revista De Chimie*, 2010. 61(3): p. 272-280.
19. Ghangrekar, M.M., S.S.R. Murthy, M. Behera, and **Duțeanu Narcis**, EFFECT OF SULFATE CONCENTRATION IN THE WASTEWATER ON MICROBIAL FUEL CELL PERFORMANCE. *Environmental Engineering and Management Journal*, 2010. 9(9): p. 1227-1234.
20. Erable, B., **Duțeanu Narcis**, M.M. Ghangrekar, C. Dumas, and K. Scott, Application of electro-active biofilms. *Biofouling*, 2010. 26(1): p. 57-71.
21. **Duțeanu Narcis**, M.M. Ghangrekar, B. Erable, and K. Scott, MICROBIAL FUEL CELLS - AN OPTION FOR WASTEWATER TREATMENT. *Environmental Engineering and Management Journal*, 2010. 9(8): p. 1069-1087.

22. **Duțeanu Narcis**, B. Erable, S.M.S. Kumar, M.M. Ghangrekar, and K. Scott, Effect of chemically modified Vulcan XC-72R on the performance of air-breathing cathode in a single-chamber microbial fuel cell. *Bioresource Technology*, 2010. 101(14): p. 5250-5255.
23. Erable, B., **Duțeanu Narcis**, S.M.S. Kumar, Y.J. Feng, M.M. Ghangrekar, and K. Scott, Nitric acid activation of graphite granules to increase the performance of the non-catalyzed oxygen reduction reaction (ORR) for MFC applications. *Electrochemistry Communications*, 2009. 11(7): p. 1547-1549.
24. Scott, K., E. Yu, G. Vlachogiannopoulos, M. Shivare, and **Duțeanu Narcis**, Performance of a direct methanol alkaline membrane fuel cell. *Journal of Power Sources*, 2008. 175(1): p. 452-457.
25. Kellenberger, A., N. Vaszilcsin, **Duțeanu Narcis**, M.L. Dan, and W. Brandl, STRUCTURE, MORPHOLOGY AND ELECTROCHEMICAL PROPERTIES OF HIGH SURFACE AREA COPPER ELECTRODES OBTAINED BY THERMAL SPRAYING TECHNIQUES. *Studia Universitatis Babes-Bolyai Chemia*, 2008. 53(1): p. 89-96.
26. **Duțeanu Narcis**, A. Kellenberger, N. Vaszilcsin, and K. Scott, Studies on Sodium Borohydride Fuel Cells. *Revista De Chimie*, 2008. 59(12): p. 1361-1365.
27. Kellenberger, A., N. Vaszilcsin, W. Brandl, and **Duțeanu Narcis**, Kinetics of hydrogen evolution reaction on skeleton nickel and nickel-titanium electrodes obtained by thermal arc spraying technique. *International Journal of Hydrogen Energy*, 2007. 32(15): p. 3258-3265.
28. **Duțeanu Narcis**, G. Vlachogiannopoulos, M.R. Shivhare, E.H. Yu, and K. Scott, A parametric study of a platinum ruthenium anode in a direct borohydride fuel cell. *Journal of Applied Electrochemistry*, 2007. 37(9): p. 1085-1091.
29. **Duțeanu Narcis**, K. Scott, N. Vaszilcsin, and A. Kellenberger, Increasing of the performances of direct methanol combustion fuel cells. *Revista De Chimie*, 2007. 58(12): p. 1207-1211.
30. Dan Mircea, Kellenberger Andrea, Vaszilcsin Nicolae, **Duțeanu Narcis**, Voltametric Studies of YBaCo₂O₅ in alkaline aqueous solution, *Environmental Engineering and Management Journal Accepted* - In press.

b. Articole științifice publicate în reviste de specialitate de circulație internațională indexate în baze de date internaționale

1. Erimescu R., Kellenberger A., **Duțeanu Narcis**, Bratu D., Vaszilcsin N., Potentiostatic polarization analysis of some dental alloys, Proceedings of the 7th International Symposium on Metal Elements in Environment, Medicine and Biology, Timisoara, 05.11.2006, pag 121, ISBN 973 -620-238-0.
2. **Duțeanu Narcis**, N.V., A.Kellenberger, M.L.Dan, Skeleton nickel electrodes for anion exchange membrane fuel cells. Chem.Bull.Politeh. Univ.Timisoara, 2005. 50 (64)(1): p. 1 - 4.
3. N. Vaszilcsin, A.Kellenberger, M.Nemes, **Duțeanu Narcis**, M.L.Dan, Methanol Electrooxidation on Skeleton Ni Based Electrodes. Chem.Bull.Politeh. Univ.Timisoara , 2004. 49 (63)(1): p. 57 - 60.
4. M.Dan, N.V., A.Kellenberger, **Duțeanu Narcis**, Metal removal from dilute solutions using vibrating electrodes. II. Nickel removal. Analele Univ. "Aurel Vlaicu", Arad, Seria Chimie, 2004: p. 41 - 47.
5. **Duțeanu Narcis**, M.Ursulescu, N.Vaszilcsin, M.Dan, A.Kellenberger, Studii asupra fosfatarii electrochimice a otelului carbon, Analele Univ. "Aurel Vlaicu", Arad, Seria Chimie, 2004, 48 -55.
6. R. Sabou, **Duțeanu Narcis**, D. Bratu, N. Vaszilcsin, Comportamentul la coroziune in vitro al unor aliaje dentare nenobile pentru restaurari protetice fixe, Timisoara Medical Journal 2004, volume 54, 2004 , 25 - 33.
7. **Duțeanu Narcis**, P.Colinot, M.Pilloz, N.Vaszilcsin, S.Ignat, D.Grevey, Etudes de la corrosion des couches minces en acier inoxydable obtenues avec l'aide du laser, Simpozion Appl. Haute technologie, Universite de Bourgogne, Franta, 2002, pag.70.

c. Lucrări prezentate în cadrul unor conferințe:

1. Dan, M., Pralong, V., Vaszilcsin, N., Kellenberger, A., **Duțeanu Narcis**, Electrochemical Behaviour of YBaCo₄O₇ in alkaline aqueous solutions, Second Regional Symposium on Electrochemistry: South – East Europe, 6 - 10 June 2010, Belgrade , Serbia.

2. Dan, M., Vaszilcsin, N., Kellenberger, A., **Duțeanu Narcis**, Electrochemical Behaviour of YBaCo4O7 in neutral aqueous solutions , Second Regional Symposium on Electrochemistry: South – East Europe, 6 - 10 June 2010, Belgrade, Serbia.
3. **Duțeanu Narcis**, Scott K., Kellenberger A., Vaszilcsin N., Parametric study of direct methanol fuel cells, Journées d'Electrochimie, Sinaia, Roumanie, 6 -10 Juillet 2009.
4. Ghangrekar, M.M., S.S.R. Murthy, M. Behera, and **Duțeanu Narcis**, Effect of sulfate concentration in the wastewater on microbial fuel cell performance, Journées d'Electrochimie, Sinaia, Roumanie, 6 -10 Juillet 2009.
5. **Duțeanu Narcis**, Scott K., Vaszilcsin N., Parametric study of direct borohydride fuel cells with Nafion (N117) membrane, Solid State Chemistry Conference, Cancun 10 – 13 March 2008.
6. **Duțeanu Narcis**, Scott K., Kellenberger A., Vaszilcsin N., Parametric study of direct methanol fuel cells, Solid State Chemistry Conference, Cancun 10 – 13 March 2008.
7. **Duțeanu Narcis**, K. Scott, N. Vaszilcsin, Parametric study of direct borohydride fuel cells, Journées d'Electrochimie 2007, Lyon
8. **Duțeanu Narcis**, A.Kellenberger, K. Scott, Parametric study of direct methanol fuel cells, Journées d'Electrochimie 2007, Lyon
9. M.R. Shivhare, C.L. Jackson, **Duțeanu Narcis**, K. Scott, E.B. Martin, Direct Methanol Fuel Cell Performance Improvement Using Design of Experiments, H2Expo International Conference and Trade Fair on Hydrogen and Fuel Cell Technologies , October 25 – 26, 2006, Hamburg.
10. **Duțeanu Narcis** M.R. Shivhare, C.L. Jackson, K. Scott, Fuels for future, Nordic 2006 PEMFC Conference , September 25 – 27 2006.
11. A.Kellenberger, N.Vaszilcsin, **Duțeanu Narcis**, Investigations of thermal arc sprayed Ni and Cu based skeleton electrodes. Part I. Deposition of the precursor Ni -Al and Cu-Al coatings, Proceedings of the microCAD 2005 International Scientific Conference, University of Miskolc, 10 -11 March, 2005, 59 -64.
12. **Duțeanu Narcis**, M.Ursulescu, N.Vaszilcsin, M.Dan, A.Kellenberger, Studii asupra fosfatarii electrochimice a otelului carbon, Analele Univ. "Aurel Vlaicu", Arad, 8 – 10 nov. 2004.

13. M.Dan, N.Vaszilcsin, A.Kellenberger, **Duțeanu Narcis**, Metal removal from dilute solutions using vibrating electrode. III. Zinc removal , Metal Elements in Environment, Medicine and Biology, 6 -th International Symp. Timisoara, 8 -10 nov. 2004.
14. R. Sabou, **Duțeanu Narcis**, D. Bratu, N. Vaszilcsin, Comportamentul la coroziune in vitro al unor aliaje dentare nenobile pentru restaurari protetice fixe, 9th International Symposium "The Stomatological Days in Ban at" Milenium III esthetic stomatology. Timisoara, 20 – 22 mai, 2004.
15. **Duțeanu Narcis**, P.Colinot, M.Pilloz, N.Vaszilcsin, S.Ignat, D.Grevey , Etudes de la corrosion des couches minces en acier inoxydable obtenues avec l'aide du laser , Simpozion Appl. Haute te chnologie, Universite de Bourgogne, Franta, iunie 2002.

4. PROIECTE DE CERCETARE-DEZVOLTARE-INOVARE PE BAZĂ DE CONTRACT/GRANT

a. Proiecte de cercetare-dezvoltare-inovare obținute prin competiție, pe bază de contract/grant în străinătate

1. **FP7 Project 211517 – UNIQUE** – *“Integration of particulate abatement, removal of trace elements and tar reforming in one biomass steam gasification reactor yielding high purity syngas for efficient CHP and power plants”*, cât și în proiectul
2. **BS ERA.NET ID 31, contract de finanțare numărul 13084/19.09.2011** – Hysulfcel – *“Producerea hidrogenului din apa Mării Negre cu ajutorul pilelor de combustie cu sulfura”*, proiect în care am fost membru în echipa de management stabilită la nivelul partenerului UPT; de asemenea am fost membru în echipa de cercetarea a unui proiect
3. **FP6** – *“Biological and Microbial Fuel Cells”*, contract numărul MTKD -CT-2004-517215 - BMFC desfășurat în cadrul Newcastle University, Marea Britanie.

b. Proiecte de cercetare-dezvoltare-inovare obținute prin competiție, pe bază de contract/grant în țară

1. **Romanian Research Grant PNCDI2** – *“Management methods and innovative*

- technologies for hazardous waste detoxification and treatment of wastewaters containing toxic elements, resulting in heavy metals metallurgy*".
2. **Romanian Research Grant PNCDI2** – Program 4: Partnerships, partner of INCEMC Timișoara - *“Complex and eco -efficient exploitation of the bauxite by gallium extraction”*.
 3. **Romanian Research Grant CEEEX Partener of UMF Timișoara, Contract no. 111/2006**, - *“Determination of glicosfingolipids expression into the central nervous system by embedded poly-functional microchips devices coupled with high performance mass spectrometry”*.
 4. **Romanian Research Grant No 2-CEX-06-11.57 / 2006** - *“Modern technology used for fabrication of pirazin 2,3 – dicarboxylic acid used as intermediate in drug synthesis”*.
 5. **Romanian Research Grant CEEEX no.23/2006** – *“Development of nano - structured photoelectrochemical cells based on TiO₂ and dyes”*.
 6. **Romanian Research Grant CEEEX** – *“Technology and device used for chlorine production and its use in chlorination of drinking water by direct injection in the supply pipe”*.
 7. **Romanian Research Grant CEEEX** – *“Enhancement and strengthening the partnership at regional and European level concerning the usage of electrochemical methods to water control and depollution”*.
 8. **Romanian Research Grant A 58 GR / 2006, CNCSIS No. 337** - *“H₂ – O₂ (air) fuel cells equipped with anion exchange membrane and electrodes based on non-nobles metals”*.
 9. **Romanian Research Grant No. 40535/2003** - *“Direct methanol fuel cells equipped with the skeleton nickel electrodes obtained by electrical arc thermal spraying technique”*.
 10. **Romanian Research Grant No. 35501/2002** - *“Electrochemical processes into un-divided reactors”*.
 11. **PN-II-PT-PCCA-2013-4-1708**, contract 50/2014 „Instalație pilot mobilă pentru tratarea apelor reziduale cu ajutorul energiei solare (SOLWATCLEAN)”

c. Alte contracte de cercetare-dezvoltare-inovare (contracte cu terți)

1. Contract de cercetare **BC 27 /02.03.2016** incheiat intre **Universitatea Politehnica Timișoara** și **S.C. SYSTRONIC S.R.L Arad**, cu tema: *Realizarea serviciilor de execuție analize Microscopie Electronică de Scanning.*