

LISTA DE LUCRĂRI

Prof.dr.ing. Ion PENCEA

I. TEZA (E) DE DOCTORAT (T)

T1. *Contribuții la caracterizarea stărilor structurale ale carbonului din diferite materiale*, Univesitatea POLITEHNICA din Bucuresti, 17.02.1997.

II. Lista lucrari relevante

1. **Pencea, I.** *Multiconvolutional Approach to Treat the Main Probability Distribution Functions Used to Assess the Uncertainties of Metallurgical Tests*, capitolul 6 in *Metallurgy - Advances in Materials and Processes*, Editura InTech, ISBN 978-953-51-0736-1, 2012, 186 pg, DOI: 10.5772/2852.

2. **Pencea, I.** „*Bazele Incercarilor Spectrochimice de Emisie Optica prin Scanteie si Arc Electric*”, Editura Printech, ISBN 978-718-657-7, București, 2007, 280 pg. , cod CNCSIS 54

3. **Pencea, I.** “*Bazele analizei structurale a materialelor*”, Editura: Printech 2001, ISBN 973-652-462-0, București, 2001, 251 pg. , cod CNCSIS 54

4. **Pencea, I.**, “*Materiale abrazive si materiale carbonice*”, capitolul 26.2 în “*Tratat de Știința și Ingineria Materialelor*”, vol. III, intitulat: “*Bazele științei materialelor*”, Editura Agir, ISBN 978-973-720-391-5, Bucuresti, 2009, pag. 1104-1150. CNCSIS 140

5. **I. Pencea**, “*Metode si tehnici instrumentale de analiza elementală a materialelor*”, capitolul 8.2. în “*Tratat de Știința și Ingineria Materialelor*”, vol. 5, intitulat: “*Tehnologii de procesare finala a materialelor metalice*”, Editura Agir, ISBN 978-973-720-391-5, Bucuresti, 2011, pag. 1057-1152. CNCSIS 140

6. Matei A. A., **Pencea, I***, Branzei M., Tranca D.E., Tepes G., Sfat C., Ciovica E., Gherghilescu A., Stanciu G. A., „*Corrosion Resistance Appraisal of TiN, TiCN And TiAlN Coatings Deposited By CAE-PVD Method On WC-Co Cutting Tools Exposed To Artificial Sea Water*”, APPLIED SURFACE SCIENCE, Vol: 358, p. 572-578, 2015, DOI: 10.1016/j.apsusc.2015.08.041, (***corresponding author**), Cotata ISI Thomson Reuters, Accession Number: WOS:000366220500010, Factor Impact: 3.15, ISSN: 0169-4332, e ISSN: 1873-5584.

7. A. A. Matei, **I. Pencea***, S.G. Stanciu, R. Hristu, I. Antoniac, E. Ciovica, C.E. Sfat, G.A. Stanciu, „*Structural characterization and adhesion appraisal of TiN and TiCN coatings deposited by CAE-PVD technique on a new carbide composite cutting tool*”, JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, Vol: 29, p. 2576-2589, 2015, DOI: 10.1080/01694243.2015.1075857, (***corresponding author**), Cotata ISI Thomson Reuters, Accession Number: WOS:000360620800006, Factor Impact: 0.863, ISSN: 0169-4243, eISSN: 1568-5616

8) Mihai Branzei, **Ion Pencea**, Alecs Andrei Matei, Catalin Eugen Sfat, Iulian Vasile Antoniac, Ramona Nicoleta Turcu , Victor Manoliu, *Influence of high temperature exposure on the adhesion of a micro-composite refractory*

enamel to a Ni-18Cr-12W superalloy, JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, (*corresponding author), Volume: 31 Issue: 23 Pages: 2555-2570, 2017, WOS:000408668200003, ISSN: 0169-4243, eISSN: 1568-5616, FI: 1,21 (2018), Q3

9. **Ion Pencea**, Mihai Branzei*, Mihai Ovidiu Cojocaru, Ramona Nicoleta Turcu, Cristian Predescu, Andrei Berbecaru, Alina Popescu Arges, Brindus Comanescu, *A New Robust Top-Down Method for Measurement Uncertainty Estimation of the ED(P)- XRFs Outcomes Carried on a Fluorescence Glass*, REVISTA DE CHIMIE, Vol.:69; Issue:9, Pgs:2487-2493,2018, WOS:000449628400038, ISSN: 0034-7752, FI:1.605 (2018), Q3

10) Dan Gheorghe, **Ion Pencea** *, Iulian Vasile Antoniac, Ramona-Nicoleta Turcu, Investigation of the Microstructure, Hardness and Corrosion Resistance of a New 58Ag24Pd11Cu2Au2Zn1.5In1.5Sn Dental Alloy, MATERIALS, (*corresponding author), Vol.:12; Issue:24, Pgs: 1-13, 2019, WOS:000507308200177, PubMed ID: 31847262, eISSN: 1996-1944, FI=2.97 (2018), Q2

III. CĂRȚI PUBLICATE (C)

1.1. Cărți și capitole în cărți de specialitate în edituri recunoscute

1.1.1.1 Cărți și capitole în cărți de specialitate [autor, edituri internaționale]

1) **I. Pencea**, Chapter 6 , “Multiconvolutional Approach to Treat the Main Probability Distribution Functions Used to Assess the Uncertainties of Metallurgical Tests, Chapters published in Metallurgy - Advances in Materials and Processes, Publisher: InTech (Book), 2012 , [CC BY 3.0 license](#), DOI: 10.5772/2852, ISBN 978-953-51-0736-119,

1.1.1 Cărți/capitole ca autor (naționale)

1. N.Popescu, R.Șaban, D.Bunea, **I.Pencea**. “Știința materialelor pentru ingineria mecanică - materiale comerciale metalice, nemetalice și compozite” Editura: Fair Partners, București, ISBN 973 - 98724 - 4 - 1, cod CNCSIS 243, 241 pagini.

2. F. Barca, **I. Pencea**, G. Colțatu, G. Gherghișor, O. Drăgulin “*Elemente de radioactivitate, tehnică și ecologie nucleară*” Editura: Printech 1999, București, ISBN 973 - 9475 - 17 – 5, cod CNCSIS 54, 182 pagini

3. C. Dumitrescu, **I. Pencea**, F. Barca, C. Berar, V. Olteanu, N. Marinescu, G. Paraschivescu: “*Precursori solizi ai produselor carbonice – obținere, caracteristici, implicații ecologice*” Editura: Printech 1999, București, ISBN 973 - 652 - 017 - x, cod CNCSIS 54, 261 pagini.

4. **I. Pencea**, “*Elemente de analiză structurală aplicată*”, Editura: Printech 2001, București, ISBN 973 - 652 – 461-2, cod CNCSIS 54, 166pg.

5. **I. Pencea**, *Bazele Incercarilor Spectrochimice de Emisie Optica prin Scanteie si Arc Electric*, Editura Printech, 2007, București, ISBN 978-718-657-7, cod CNCSIS 54, 280 pagini

6. **I. Pencea**. “*Materiale abrazive si materiale carbonice*”, capitolul 26,2 în “Tratat de Știința și Ingineria Materialelor”, vol. III, intitulat: “*Bazele științei materialelor*”, pag. 1104-1150, Editura Agir, cod CNCSIS 140, 2009, 47 pagini

7. E.C. Sfăt, **I.Pencea**, Aliaje de aluminiu amorphe si nanostructurate. Studiu de caz : Al-8Fe-2V-1Si, Editura: Printech, București, 2009, ISBN 978 - 606 – 521-366-1, cod CNCSIS 54, 163 pg.

8) **I. Pencea**, ‘Analiza structurala a materialelor prin difractia radiatiilor X, capitolul 8.3. în *Tratat de Știința și Ingineria Materialelor*, vol. 5, intitulat: *Tehnologii de procesare finala a materialelor metalice*, Editura Agir, 2011, cod CNCISIS 140, Bucuresti, pag. 1153-1239, 87 pagini

1.2.1 Manuale didactice/ monografii, inclusiv electronice

1. N.Popescu, R.Șaban, D.Bunea, **I.Pencea**. “Știința materialelor pentru ingineria mecanica - alcătuirea, generarea și comportarea structurii materialelor metalice. Aliaje fier - carbon.”,1999, Editura: Fair Partners, București, ISBN 973 - 98724 - 2 - 5, cod CNCISIS 243, 270 pagini.

2. **I. Pencea**, “*Bazele analizei structurale a materialelor*”, Editura: Printech 2001, București, ISBN 973 - 652 – 462-0, cod CNCISIS 54, 251 pagini

3. **I. Pencea**, “*Metode si tehnici instrumentale de analiza elementală a materialelor*”, capitolul 8, în “*Tratat de Știința și Ingineria Materialelor*”, vol. 5, intitulat: “*Tehnologii de procesare finala a materialelor metalice*”, , Editura Agir, cod CNCISIS 140, 2011, pag. 1057-1239, 183 pagini

4. **I.Pencea**, *Elemente de Grafica Inginereasca*, Editura Printech, 2007, București, cod CNCISIS 54, 148 pg.

1.2.2 Îndrumare de laborator / aplicații

1. **I. Pencea**, D. Bojin, R. Paunescu, “*Metode de analiza a structurii prin difractia radiatiilor X*”, Editura Printech, 1999, cod CNCISIS 54, 124 pagini

2. D. Bunea, **I. Pencea**, V.Antoniac, D.Drăgulin, O.Trante, G.Gheorghisor, R.Păunescu “*Știința materialelor - Culegere de probleme*” Editura: Printech 1999, București ISBN 973 - 9475 - 44 - 2, cod CNCISIS 54, 141 pagini.

3. C.Necșulescu, A. Necșulescu, D. Coșmeleață, **I.Pencea**, “*Introducere în informatică*”, Îndrumar de laborator, Partea I, Editura Printech, 2006, București, ISBN 973-718-471-8, cod CNCISIS 54, 106 pagini

III. A.2.1. Articole în reviste cotate ISI Th. R. web of science Core Collection[FI]și în volume indexate ISI proceedings-Web of science[2]

1) Dan Gheorghe, **Ion Pencea** *, Iulian Vasile Antoniac, Ramona-Nicoleta Turcu, Investigation of the Microstructure, Hardness and Corrosion Resistance of a New 58Ag24Pd11Cu2Au2Zn1.5In1.5Sn Dental Alloy, MATERIALS, (*corresponding author), Vol.:12; Issue:24, Pgs: 1-13, 2019, WOS:000507308200177, PubMed ID: 31847262, eISSN: 1996-1944, **FI=2.97 (2018)**, Q2

2) **Pencea, I**; Turcu, RN ; Miculescu, F; Predescu, C.; Comanescu, B., Studies Concerning the Usage of the Intrinsic Morphological and Chemical Features of Some Common and Document Paper Types as Security Items, REVISTA DE CHIMIE, Vol. 69 Issue: 11, 2018, Pgs: 3090-3096, WOS:000451931500028, ISSN: 0034-7752, **FI:1.605 (2018)**, Q3

3) **Ion Pencea**, Mihai Branzei*, Mihai Ovidiu Cojocaru, Ramona Nicoleta Turcu, Cristian Predescu, Andrei Berbecaru, Alina Popescu Arges, Brindus Comanescu, *A New Robust Top-Down Method for Measurement Uncertainty Estimation of the ED(P)- XRFs Outcomes Carried on a Fluorescence Glass*, REVISTA DE CHIMIE, Vol.:69; Issue:9, Pgs:2487-2493,2018, WOS:000449628400038, ISSN: 0034-7752, **FI:1.605 (2018)**, Q3

4) **Pencea, I.**, Branzei, M, Turcu, R. N., Sfat, C. E., *New Approach for Chemical Homogeneity Analysis of an AISI 316L Stainless Steel Bar Batch*, REVISTA DE CHIMIE; Vol.:69; Issue:5; Pgs.:1079-1083; 2018, WOS:000434954100010; ISSN: 0034-7752, **FI=1,605 (2018)**, Q3

50*1,605/4=20,06

5) Mihai Branzei, **Ion Pencea**, Alecs Andrei Matei, Catalin Eugen Sfat, Iulian Vasile Antoniac, Ramona Nicoleta Turcu , Victor Manoliu, *Influence of high temperature exposure on the adhesion of a micro-composite refractory enamel to a Ni–18Cr–12W superalloy*, JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, (*corresponding author), Volume: 31 Issue: 23 Pages: 2555-2570, 2017, WOS:000408668200003, ISSN: 0169-

4243, eISSN: 1568-5616, **FI: 1,21 (2018), Q3**

6) A Maidaniuc, F. Miculescu, S.I. Voicu, C. Andronescu, M. Miculescu, E. Matei, A.C. Mocanu, **I. Pencea**, I.Csaki, T. Machedon-Pisu, L.T. Ciocan, *Induced wettability and surface-volume correlation of composition for bovine bone derived hydroxyapatite particles*, Applied Surface Science, Vol. 438, pag. 158-166, DOI:10.1016/j.apsusc.2017.07.074; Web of Science Categories: Materials Science, Coatings & Films, **WOS:000425731200017**, ISSN: 0169-4332, **FI=5.155 (2018), Q1**

7) Matei, A. A.; **Pencea I**; Branzei, M.; Tranca, D. E. Tepes, G. Sfat, C. E. Ciofica (Coman), E. Gherghilescu, A. I., Stanciu, G. A.” Corrosion Resistance Appraisal of TiN, TiCN and TIAIN Coatings Deposited by CAE-PVD Method on WC-Co Cutting Tools Exposed to Artificial Sea Water” Proceeding of the 9th International Conference on Materials Science and Engineering (BRAMAT) APPLIED SURFACE SCIENCE Volume: 358 Pages: 572-578 Part: B Published: DEC 15 2015, **Accession Number: WOS:000366220500010** ISSN: 0169-4332 eISSN: 1873-5584, **FI=5.155 (2018), Q1**

8) Matei, A. A.; **Pencea, I.**; Stanciu, S. G. Hristu, R, Antoniac, I.; Ciofica (Coman), E.; Sfat, C. E.; Stanciu, G. A., „*Structural Characterization and Adhesion Appraisal of TiN and TiCN Coatings Deposited by CAE-PVD Technique on a New Carbide Composite Cutting Tool*” JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, Volume: 29 Issue: 23 Pages: 2576-2589 Published: DEC 2 2015, DOI: 10.1080/01694243.2015.1075857 **Accession Number: WOS:000360620800006**, ISSN: 0169-4243 **eISSN: 1568-5616, FI= 1.21 (2018)**

9) Branzei M.; Mihailescu B.; **Pencea I.** „Lead/Lead-Free Solder Alloys Shear Tests Correlations With Structure at Different Temperatures”, Proceeding of the 37th International Spring Seminar on Electronics Technology (ISSE) - Advances in Electronic System INTEGRATION, Book Series: INTERNATIONAL SPRING SEMINAR ON ELECTRONICS TECHNOLOGY ISSE Pages: 256-259 Published:2014, **WOS:000346580500051**, ISBN:978-1-4799-4455-2 ISSN: 2161-2528, **FI: 0.0**

10) **Pencea, I**; Tiriba, G „*Multiconvolutional Approach for Uncertainty Estimation of the Residual Stresses Measured by XRD SIN2 psi Method*”, University Politehnica of Bucharest SCIENTIFIC BULLETIN-SERIES A- Applied Mathematics And Physics, Volume: 75 Issue: 4 Pages: 275-284 Published:2013, Accession Number: **WOS:000328301900024**, ISSN: 1223-7027, **FI=0.478 (2018), Q4**

11) Miculescu, F, Miculescu, M, Ciocan, LT, **Pencea I**, Ernuteanu, A, Matei, E „, *Correlation of Spectrometric Methods in Hard Tissue Heavy Elements Concentration Study*” University Politehnica of Bucharest Scientific Bulletin-Series A-Applied Mathematics and Physics, Volume: 75 Issue: 1 Pages: 233-242 Published:2013, **WOS:000315547300022**, ISSN: 1223-7027, **FI=0.478 (2018)**

12) Branzei, Mihai; **Pencea, Ion**; Plotog, Ioan; Miculescu, F; Cristea, I; Thumm, A., *THE MISCHMETAL AND BI94ZN6 EFFECT ALLOYING ON SACX 0307*” Conference: 36th International Spring Seminar on Electronics Technology Location: Alba Iulia, ROMANIA Date: MAY 08-12, 2013; Proceedings Of The 36th International Spring Seminar On Electronics Technology (ISSE) Book Series: International Spring Seminar on Electronics Technology ISSE Pages: 24-29 Published: 2013, **WOS:000374113900005**, ISBN:978-1-4799-0036-7, ISSN: 2161-2528, **FI= 0.0**

13) **Pencea, Ion**; Plotog, Ioan; Branzei, Mihai; Bibis, A ; Svasta, P „, *MULTICONVOLUTIONAL APPROACH FOR UNCERTAINTY ESTIMATION OF THE THERMAL DIFFUSIVITY MEASURED BY FLASH METHOD*” , Proceeding of the 36th International Spring Seminar on Electronics Technology (ISSE), Book Series: International Spring Seminar on Electronics Technology ISSE Pages: 195-201 Published:2013, **WOS:000374113900037**, ISBN:978-1-4799-0036-7 ISSN: 2161-2528, **FI=0.0**

14) Miculescu, F.; Ciocan, LT; Miculescu M.; Ernuteanu, A; Antoniac, I; Matei, E.; **Pencea I.** „, *A STUDY ON TRACE ELEMENTS CONCENTRATION IN BONE PARTICLES BY XRF ANALYSIS*” Proceeding of the 4th International Conference on Advanced Materials and Structures (AMS 2011) Book Series: SOLID STATE

PHENOMENA Volume: 188 Pages: 37-40 Published: 2012, DOI: 10.4028/www.scientific.net/SSP.188.37,
Accession Number: WOS:000308047400007, ISSN: 1012-0394, **FI=0.0**

15) Miculescu, F; Miculescu, M; Ciocan, LT; Ernuteanu, A; Antoniac, I; **Pencea I**; Matei, E „*Comparative studies regarding heavy elements concentration in human cortical bone*” Digest Journal of Nanomaterials and Biostructures, Vol: 6 (3),Pages: 1117-1127, 2011, **WOS:000297986100026**, ISSN: 1842-3582, **FI=0.638 (2018)**

16) Popescu, Ion V.; **Pencea I**; Anghelina, V. F.; Branzei, M.; Miculescu, F; Macris, C; Petre, C „, *New Proves Concerning Streamer Mechanism of Vaporization and Sputtering of a Stainless Steel During Sparking for Optical Emission Spectroscopic Analysis*”, ROMANIAN REPORTS IN PHYSICS Volume: 63 Issue: 3 Pages: 823-838, 2011, **WOS:000293992000019**, ISSN: 1221-1451, **FI=1.94 (2018)**

17) Plotog, I; Mihailescu, B; **Pencea, I**; Branzei, M; Svasta, P.; Cucu, T; Tarcolea, M. „*METHODS FOR PADS THERMOPHYSICAL PARAMETERS ASSESSMENT IN TERMS OF 4P SOLDERING MODEL*”, Proceedings of the 34th International Spring Seminar on Electronics Technology, Book Series: International Spring Seminar on Electronics Technology ISSE, Pages: 320-326 ; Published: 2011, **WOS:000374108800063**, ISBN:978-1-4577-2110-6 , ISSN: 2161-2528, **FI=0.0**

18) **Pencea, I**; Anghelina, V F; Sfat, CE; Popescu, IV „, *WAXD and SEM characterization of Two PAN Candidates as Carbon Fiber Precursors*”, MATERIALE PLASTICE Volume: 47 Issue: 2 Pages: 199-204 Published: JUN 2010, **Accession Number: WOS:000281051300016**, ISSN: 0025-5289, **FI=1.393 (2018)**

19) **Pencea, I**; Sfat, C E; Anghelina, V F „, *Uncertainty Estimation for SDAR-OES Internal Standard Method*” , University Politehnica Of Bucharest Scientific Bulletin-Series A-Applied Mathematics And Physics, Volume: 72 Issue: 1 Pages: 103-112 Published:2010, **WOS:000275788700013**, ISSN: 1223-7027, **FI=0.478 (2018)**

20) **Pencea I.**; Sfat, C. E.; Pencea, M. „*New approach of classification for the competence of spectrochemical analysis laboratories based on obtained results in a Round Robin scheme*” , JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 11 Issue: 5 Pages: 722-727 Published: MAY 2009, **WOS:000267212600026** ISSN: 1454-4164, **FI= 0.588 (2018)**

21) **Pencea I**, Miculescu, M.; Pencea, M.; Sfat, CE; Branzei, M; Manoliu, V „, *Thermal Barrier Effect Estimation of a New Refractory Enamel*”, Optoelectronics And Advanced Materials-Rapid Communications, Volume: 3 Issue: 5 Pages: 439-445 Published: MAY 2009, **WOS:000268622300011**, ISSN: 1842-6573, **FI= 0.452 (2018)**

22) **Pencea, I**; Stefanescu, DM; Ruxanda, R; Anghelina, VF „*NEW ASPECTS REGARDING THE WAXD INVESTIGATION OF SPHEROIDAL CAST IRON INCLUSIONS*”, Proceeding of the 20th International Danube-Adria-Association-for-Automation-and-Manufacturing Symposium , Book Series:Annals of DAAAM and Proceedings Volume: 20 Pages:1667-1668, 2009, **WOS:000282335600834**, ISBN:978-3-901509-70-4 ; ISSN: 1726-9679, **FI= 0.0**

23) **Pencea, I.**; Branzei, M.; Miculescu, F.; Pencea, M; Trante, O; Miculescu, M „, *The Matrix Effect on Spectrochemical Analysis Accuracy of AISI 316 Biomaterial Grades*”, Proceeding of the 2nd International Conference on Biomaterials and Medical Devices „JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 9 Issue: 11 Pages: 3411-3414 Published: NOV 2007, **WOS:000251435200026**, ISSN: 1454-4164, **FI= 0.588 (2018)**

24) **Pencea I**; Manoliu, V; Vasiliu, F; Britchi, M; Olteanu, M „, *SEM, EDS and WAXD Microstructural Characterization of a New Enamel Used as a Protective and Thermal Barrier*”, INTERNATIONAL JOURNAL OF MATERIALS & PRODUCT TECHNOLOGY Volume: 16 Issue: 6-7 Pages: 658-668 Published: 2001, **WOS:000170488500012**; ISSN: 0268-1900, **FI=0.674 (2018)**

25) Britchi, M; Olteanu, M; **Pencea, I** „, *Optical Microscopy and Microhardness Tests on a Secondary Aluminium Alloy*”, INTERNATIONAL JOURNAL OF MATERIALS & PRODUCT TECHNOLOGY Volume: 14 Issue: 1 Pages: 17-27, 1999, **WOS:000081254200002**; ISSN: 0268-1900, **FI= 0.674 (2018)**

26) Britchi, M; Momirlan, M; **Pencea, I** „, *Surface Coatings with Special Properties Obtained by Titanium Diffusion and Powder Plasma Technique on ARMCO Iron and Steels*”, INTERNATIONAL JOURNAL OF MATERIALS & PRODUCT TECHNOLOGY Volume: 13 Issue: 3-6 Pages: 400-410,1998, **WOS:000078734500017** ; ISSN:

0268-1900, **FI= 0.674 (2018)**

27) Vasiliu, F; **Pencea, I**; Manoliu, V; Dinca, I. Sarbu, C ., *Thermal-Stability of Plasma-Sprayed Zirconia Coatings as Related to Substrate Selection*”, AMERICAN CERAMIC SOCIETY BULLETIN Volume: 64 Issue: 9 Pages: 1268-1271 Published: 1985, **WOS:A1985AQJ6100014**; ISSN: 0002-7812, **FI=1.121 (2018)**

28) Costache, B; **Pencea, I**; Funar, SP ., *WASTE AND ENVIRONMENT PROTECTION MANAGEMENT OF THE TYPICAL GERMAN SMALL AND MEDIUM-SIZED FOUNDRIES*” Annals Of Daaam For 2007 & Proceedings Of The 18th International Daaam Symposium: Intelligent Manufacturing & Automation: Focus On Creativity, Responsibility, And Ethics Of Engineers Pages: 173-174, Published: 2007, **WOS:000252067400087**, ISBN:978-3-90150-958-2, **FI=0.0**

A.1.2.Articole in reviste si volumele unor manifestari stiintifice indexate in alte Baze de Date Internationale [BDI]

1)Turcu, R.N., Matei, A.A., **Pencea, I.**, Cojocaru, M.O., *NEW APPROACH FOR WHEAT GRAIN ELEMENTAL ANALYSIS BASED ON ED(P)-XRFS METHOD*, (2017) UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 79 (4), pp. 253-260, Document Type: Article, Source: **Scopus**

2) **Pencea, I.**, Sfat, C.E., Branzei, M., Plotog, I., *NEW APPROACH FOR MEASURING THE SURFACE TENSION OF SNAGCU305 MOLTEN ALLOY*, (2012) 2012 IEEE 18th International Symposium for Design and Technology of Electronics Packages,SIITME 2012 – Conference Proceedings, art. No. 6384367, pp. 157-161., DOI: 10.1109/SIITME.2012.6384367 Document Type: Conference Paper, Source: **Scopus**

3) Miculescu, M., **Pencea, I.**, Miculescu, F., Ciocan, L.T., Ernuteanu, A., Matei, E, *EDPXRF ANALYSIS OF HEAVY ELEMENTS IN HUMAN HARD TISSUE*, (2011) 24th European Conference on Biomaterials – Annual Conference of the European Society for Biomaterials, 1 p. Document Type: Conference Paper, Source: Scopus

4) **Pencea, I.**, Rebrisoreanu, M.T.I., Traista, E., Dumitrescu, I., *NEW APPROACH FOR LOWERING THE ENVIRONMENT IMPACT OF METALLURGICAL COKE*, (2010) Annals of DAAAM and Proceedings of the International DAAAM Symposium, pp. 523-524.Document Type: Conference Paper Source: Scopus

5) Rebrisoreanu, M.T.I., **Pencea, I.**, Dumitrescu, I., Traista, E., Nimara, C., Postolache, M., *New Convolutional Approach of Estimation of Uncertainty of Compressive Strength Test Results on Some Rocks*, (2010) Annals of DAAAM and Proceedings of the International DAAAM Symposium, pp. 521-522., Document Type: Conference Paper Source: Scopus

6) **Pencea, I.**, Sfat, C., Pencea, M., Vasiliu, F., Martinov, D., Ion, N., Parvu, S. ., *SEM, WAXD and EDP-XRFS Characterization of a Biomass Precursor Active Carbon*”, (2008) UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 70 (3), pp. 65-76. Document Type: Article Source: Scopus,

7) **Pencea, I.**, Sfat, C.E., Pencea, M., Gheorghe, A., Martinov, M.D., Calota, I.V, *New Approach of Classification for the Competence of Spectrochemical Analysis Laboratories Based on Obtained Results In A Round Robin Scheme*, (2008) AMUEM 2008 – IEEE Workshop on Advanced Methods for Uncertainty Estimation Measurement Proceedings, art. No. 4589941, pp. 90-95., DOI: 10.1109/AMUEM.2008.4589941, Document Type: Conference Paper, Source: Scopus

8) Barca, F., **Pencea, I.**, Bracman, C., Morărescu, M., *-An Unified Way of Evaluation of the CO2 Pollution Caused by Romanian Coke and Caustobolite Fuels Used in Metallurgy and Power Plants*, (2001) UPB SCIENTIFIC BULLETIN, Series B: Chemistry and Materials Science, 63 (4), pp. 85-90., Document Type: Article, Source: Scopus

9) Dumitrescu, C., **Pencea, I.**, Klaar, H.-J., Herwartz, C., *NEW Aspects Regarding THE Morphology and Structure of the Metastable Al3Ti Phases into Al-Li-Cu-Mg-Ti Alloys*, (1999) UPB SCIENTIFIC BULLETIN, Series B: Chemistry and Materials Science, 61 (3-4), pp. 115-125. Document Type: Article Source: Scopus

10) M. Petrescu, M. Britchi, E.M. Anghel, **I. Pencea**, M. Danescu, *Microstructural and Microhardness Changes*

Upon Isothermal Annealing of a Rapidly Solidified Al-Si Alloy With Ultra-High Silicon Content, University Politehnica Of Bucharest SCIENTIFIC BULLETIN, Series B: Chemistry And Materials Science, Vol: 58-59(1-4), p. 71-76, 1997, Indexata SCOPUS, ISSN: 1454-2331.

11) N. Petrescu, M. Britchi, M. Petrescu, E.M. Anghel, **I. Pencea**, *Effect of Increasing the Cooling Rate Upon Solidification on the Microstructure and Microhardness of a Hypereutectic Al-Si Alloy Containing 29 WT. % Si*, University Politehnica of Bucharest SCIENTIFIC BULLETIN, Series B: Chemistry And Materials Science, Vol: 58-59(1-4), p. 77-84, 1997, Indexata SCOPUS, ISSN: 1454-2331

IV. A.2.4 Granturi/proiecte de cercetare câștigate prin competitie/Contracte cu agenti economici min 10,000 echivalent Euro încasați

1) PN-III-P2-2.1-BG-2016-0338, Tehnologie Spectrala Pentru Securizarea Avansata A Documentelor, 2016-2018, Trasabilitate: Raport Cecetare, poz. 1 Anexa,

2) POC-G-A1.2.3. CF 130/23.09,16 ID P-40-253, Eco Nano tehnologii de depoluare a apelor si valorificarea deseurilor, 2016-2020 **membrii Trasabilitate poz 2 Anexa 1**

3) UPB- BIOMAT, Program IDEI, AMCSIT, contract nr. 153/12.06.2008, „Aparat de vedere pe timp de noapte cu senzor CCD ultra sensibil, cu performanțe îmbunătățite-AVNCMOS”, , Parteneriat OPTOELECTRONICA 2001 SA-UPB-BIOMAT- Trasabilitate: Fisa Financiara, poz. 3 Anexa **responsabil proiect**

4) UPB- BIOMAT, Program IDEI, AMCSIT , contract nr. 16/20.07.2007, „Echipament cu sursa de lumina policromatica cu banda larga pentru investigatii criminalistice”, din cadrul Contractului de finanțare nr. 16/ 20.09.2007, durata 2007-2009,, Parteneriat OPTOELECTRONICA 2001 SA-UPB-BIOMAT-: Trasabilitate:Deviz, poz. 4 Anexa

5) UPB, nr. 287/2006 CEEEX, “Tehnologii avansate de mediu pentru reducerea poluării rezultate din deversarea efluenților specifici industriei energetice, utilizând materiale carbonice active cu precursori indigeni” Trasabilitate: Protocol Finalizare, poz. 5 Anexa

6) UPB-BIOMAT, Program CEEEX, contract nr. 2148 -2006, “Echipament laser și tehnologii de realizare a înscrisurilor pe suporturi din diferite materiale” Parteneriat OPTOELECTRONICA 2001 SA-UPB-BIOMAT; Trasabilitate:Contract Deviz, poz. 6 Anexa

7) UPB-BIOMAT, Program –INFRAS-Modulul IV, contract nr. 164, ”Laborator de Evaluare a conformitatii materialelor si produselor prin incercari spectrochimice de emisie in UV-VIZ (OES) si fluorescenta a radiatiilor X (XRF) –“LECOMP-SPECTRO”, Trasabilitate: Plan Financiar, poz. 7 Anexa

8) UPB-BIOMAT, Program CNMP-INFOSOC, 158 B/2005(CEEEX) “Sistem informational privind asigurarea climatului de incredere si a confidentialitatii documentelor-managementul identitatii” (SI-MI), , Parteneriat OPTOELECTRONICA 2001 SA-UPB-BIOMAT- Trasabilitate: Contract, poz. 8 Anexa

9) UPB-BIOMAT, Program Relansin , Contract nr 1953/2004; Tehnologii modernizate de productie a conservelor, in conformitate cu cerintele si exigentele pietii UE, Parteneriat SC. CCAI SA-UPB Biomat; Trasabilitate Contract, poz. 9 Anexa

10) UPB, Grant CNCISIS Cod 477, ”Sistem Expert De Analiza Elementala Rapida A Otelurilor Biocompatibile Din Clasa Aisi 316 Aflate In Curs De Elaborare Si Post Procesare”, Trasabilitate Raport Final, poz. 10 Anexa

11) UPB-BIOMAT, Program RELANSIN, contract nr. 1704/2003” Tehnologii noi de obtinere a etaloanelor spectrometrice” Acronim ESOA, Parteneriat ICEM SA-UPB-CEMS, Trasabilitate Deviz, poz. 11 Anexa

- 12) UPB-BIOMAT, Program RELANSIN, contract nr. 1771/2003 ” Laborator mobil pentru determinarea amprentei termice IR”, Parteneriat OPTOELECTRONICA 2001 SA-UPB-BIOMAT, Trasabilitate contract, poz. 11 Anexa
- 13) UPB-CNCSIS Grant nr. 7072/anul 2001, tema nr. B 24, « Cercetari privind realizarea de acoperiri carbonice biocompatibile pentru proteze metalice », 2001-2002.- Trasabilitate: PV Avizare, poz. 13 Anexa, **Director proiect**
- 14) UPB- si Ministerul Ed. Nat, contract nr. 3042/1998, tema Bifurcatii in mecanica materialelor composite hipoeutectice, 2001 , Trasabilitate: Deviz, poz 14 Anexa
- 15)UPB-CEMS, Program ORIZONT 2000,(MCT), contract nr 836, „Studii si cercetari privind perfectionarea metodelor optoelectronice de investigare a structurii fine a materialelor metalice” , Trasabilitate: PV Avizare, poz 15 Anexa
- 16) UPB-CEMS, Program ORIZONT 2000,(MCT), contract nr 355/1996 „Cercetari privind formarea si evolutia clusterilor de carbon din oteluri si fonte in vederea maririi duratei lor de exploatare” Trasabilitate: PV Avizare, poz 16 Anexa
- 17) UPB-CEMS, Program ORIZONT 2000,(MCT), contract nr. 619/ 1996 „Cercetari privind realizarea unor straturi de protectie ceramice”, prin tehnologii neconventionale, pentru echipamente industriale, , Trasabilitate: Deviz, poz 17 Anexa
- 18) UPB-CEMS, Program ORIZONT 2000,(MCT), contract 621/1996, „Studii si cercetari privind realizarea si caracterizarea unor noi material composite armate cu fibre metalice(amorfe), ceramic sau de carbon din clasa materialelor metaloceramice”, Trasabilitate: Deviz, poz 18 Anexa Perioada 1995-1998, - **responsabil proiect**
- 19) UPB-, si Ministerul Ed. Nat. , contract nr. 7001/1997, tema nr 137/1554 „Cercetari privind realizarea unui sistem integrat software-hardware destinat caracterizarii structurii fine a materialelor mezomorfe utilizand metode de modelare si simulare a spectrelor de difractie cu raze X si electroni”, Trasabilitate: PV Avizare, poz 19 Anexa
20. UPB-CEMS ORIZONT 2000,(MCT), Contract 711/1996 tema A 19 Cercetari privind realizarea unei instalatii mobile pentru determinarea tensiunilor interne remanente utilizand metoda difractiei cu radiatii X. Trasabilitate: PV Avizare, poz 20 Anexa
21. UPB-CEMS ORIZONT 2000,(MCT), Contract 711/1996 tema A 19 Cercetari privind imbunatatirea si caracterizarea complexa a unor materiale compozite cu proprietati acustice controlkate pentru uz industrial, Trasabilitate: Nota evaluare, poz 20 Anexa
22. . UPB-CEMS ORIZONT 2000,(MCT), Contract 836/1996 tema A 16 //A Ad/712/1997 tema A 19 Cercetari privind elaborarea si modernizarea metodelor fotonoice de obtinere a straturilor subtiri aplicate in electrotehnica si electronice. Responsabil tema S.L. dr. Ing Marius Vasilescu , Trasabilitate: Nota de fundamentare,poz 23 Anexa,
23. UPB-CEMS ORIZONT 2000,(MCT), Contract 510B/ tema B33/1995 / Studii privind determinarea tensiunilor internein straturi subtiri prin metoda difractiei cu radiatii X Reponsabil tema As Univ. G. Tiriba. (Trasabilitate: Fisa. Anexa poz.24)
24. UPB-CEMS - MCT, Contract 619/1996 tema B11 //1999. Cercetari privind realizarea unor straturi de protectie ceramice, prin tehnologii neconventionale pentru echipamente industriale, tema (Trasabilitate: Deviz 2001. Anexa poz.24)
25. UPB-CEMS - MCT, Contract 836/1996 tema A105 //A.Ad 712/III/1997 Cercetari privnd adaptarea la standardele internationalea metodelor de elaborare si caracterizare a materialelor compozite cu aplicatii in electrotehnica si electronica. Director proiect prof. D, Bunea (Trasabilitate: Nota Evaluare. Anexa poz.25

26. UPB-CEMS-ICPE Bucuresti-Contact terti: nr22/1996. Studiu de fundamentare a metodeide difractie la unghiuri mici SAXS, Responsabil tema (Trasabilitate: Contract. Anexa poz.26)
27. UPB-CEMS, Program ORIZONT 2000,(MCT), contract nr 355/1996 tema B1 „Cercetari privind obtinerea unor materiale carbonice active performante pentru ecologie si aplicatii conexe” Trasabilitate: Deviz . Anexa poz.27
28. CNC SIS-BM-UPB: Metode de analiza si program de pregatire privind protectia mediului in sectoarele metalurgice, Director proiect Prof. C. Dumitrescu, Trasabilitate: Referat Necesitate- Anexa poz.28
- 29.MCT –SC ICMAv SA contract nr N-2246/1992; Determinarea parametrilor structurali ai fibrelor de carbon si ai precursorilor acestora prin investigatii de difractie cu raze X Responsabil tema (Trasabilitate: Fisa. Anexa poz.29)
30. .MCT –INCREST contract nr 1-V-094/1984. Expertizare piese IAR-95 incercate la standul de probe, Trasabilitate: Fisa. Anexa poz.30 ,
- 31) INCREST, Program SIAR 93 B1, Cercetări privind interactiunea campului ultrasonor cu lichidele hidraulice in vederea modificării regimului de curgere” Trasabilitate: Fisa. Anexa poz.31
- 32) SC ICMAv SA—Cod N 1168/1991Caracterizarea cristalografica prin difrac’ie de raze X si microstructurala a fibrelor precursoare poliacrilonitrilice. Trasabilitate: Fisa. Anexa poz. 32
- 33. INCREST, N5020, 1990 Cercetari asupra aliajelor de aluminiu,(Nastura, Dimensiuni, si distributia compusilor intermetalici)** Trasabilitate: Fisa. Anexa poz.33
- 34) INCREST, Cod: ITI-V-001, Cercetari privind asimilarea unor tehnologii de protectie la temperaturi ridicate pentru anumite componente ale MTR-DF 1983, Trasabilitate: Fisa. poz.34. Anexa
35. POC-CDI –UPB Contract 130/2016-Proiect tip C –SC Quar SRL-Tehnologie de valorificare aluminotermic[a deseurilor, Trasabilitate: Contract. poz.35. Anexa

Data,

31.03.2020

Semnătura,

Prof.dr.ing. Ion Pencea