DOSAR DE CANDIDATURĂ

pentru funcţia de

Director

la

Școala doctorală de Științe Exacte și Științele Naturii
Universitatea de Vest din Timişoara

Prof. Univ. Dr. Habil. Mihail LUNGU

Aprilie 2024

Prezentul dosar conţine:

- Declarația de candidatură
- Curriculum Vitae
- Fișa de autoevaluare CNATDCU
- Programul managerial
- Declaraţia pe proprie raspundere

Type text here

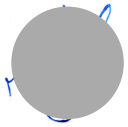
DECLARAŢIE DE CANDIDATURĂ

Subsemnatul Prof. Univ. Dr. habil. **Mihail LUNGU**, îmi exprim dorinţa de a candida pentru funcţia de **DIRECTOR** al Școalii Doctorale de Științe Exacte și Științele Naturii, **mandatul 2024-2029.**

Doresc acest lucru pentru a-mi aduce contribuţia la dezvoltarea studiilor de doctorat la Univesitatea de Vest Timişoara.

Timişoara,
04.04.2024

Prof. Univ. Dr. habil. Mihail LUNGU



Curriculum vitae Europass

Informaţii personale

Nume/Prenume	**Lungu Mihail**
Adresa	I.L. Banateanu nr. 16, 300354 Timişoara, România
Telefon	0256/288262 0745604078
E-mail	mihail.lungu@e-uvt.ro, lmihaister@gmail.com
Cetăţenia	română
Data naşterii	4 mai 1962
Sex	masculin

Experienţa profesională

Perioada	**Prezent**
Funcţia sau postul ocupat	Profesor universitar, Facultatea de FIZICA , Universitatea de Vest Timisoara
Perioada	**2022 - 2024**
Funcţia sau postul ocupat	Profesor universitar, Decan Facultatea de FIZICA , Universitatea de Vest Timisoara
Perioada	**2020 - 2022**
Funcţia sau postul ocupat	Conferentiar universitar, Decan Facultatea de FIZICA , Universitatea de Vest Timisoara
Perioada	**2016 - 2020**
Funcţia sau postul ocupat	Conferentiar universitar, Director Departament Fizica, Facultatea de FIZICA , Universitatea de Vest
Perioada	**2013-2022**
Funcţia sau postul ocupat	Vicepresedinte SRF, Sectiunea Fizica si Educatie
Perioada	**2012- 2016**
Funcţia sau postul ocupat	Conferentiar universitar, Prodecan Facultatea de FIZICA , Universitatea de Vest
Principalele activităţi şi responsabilităţi	Coordonarea şi implementarea activităţilor de seminar ale studenţilor de la specialzarea fizică; Coordonarea activităţilor de practică de specialitate ale studenţilor de la fizică; Elaborarea şi implementarea de activităţi de cercetare în domeniul fizicii Proiectarea, coordonarea şi evaluarea activităţii de formare la nivelul grupelor de studenți
Numele şi adresa angajatorului	Universitatea de Vest Timișoara, Facultatea de Fizică str.Vasile Parvan, nr. 4 Timisoara, Romania
Tipul activităţii sau sectorul de activitate	Învățământ universitar: Didactică şi cercetare
Perioada	**1995-2012**
Funcţia sau postul ocupat	Lector universitar
Principalele activităţi şi responsabilităţi	Coordonarea şi implementarea activităţilor de seminar ale studenţilor de la specialzarea fizică; Coordonarea activităţilor de practică de specialitate ale studenţilor de la fizică; Elaborarea şi implementarea de activităţi de cercetare în domeniul fizicii Proiectarea, coordonarea şi evaluarea activităţii de formare la nivelul grupelor de studenți
Numele şi adresa angajatorului	Universitatea de Vest Timișoara, Facultatea de Fizică str.Vasile Parvan, nr. 4 Timisoara, Romania
Tipul activităţii sau sectorul de activitate	Învățământ universitar: Didactică şi cercetare
Perioada	**1991-1995**
Funcţia sau postul ocupat	Asistent universitar

Principalele activităţi şi responsabilităţi	Coordonarea şi implementarea activităţilor de seminar ale studenţilor de la specialzarea fizică; Coordonarea activităţilor de practică de specialitate ale studenţilor de la fizică; Elaborarea şi implementarea de activităţi de cercetare în domeniul fizicii Proiectarea, coordonarea şi evaluarea activităţii de formare la nivelul grupelor de studenți
Numele şi adresa angajatorului	Universitatea de Vest Timișoara, Facultatea de Fizică str.Vasile Parvan, nr. 4 Timisoara, Romania
Tipul activităţii sau sectorul de activitate	Învățământ universitar: Didactică şi cercetare
Perioada	**1986-1991**
Funcţia sau postul ocupat	Profesor fizică
Principalele activităţi şi responsabilităţi	Proiectarea, coordonarea şi evaluarea activităţii de formare la nivelul clasei de elevi
Numele şi adresa angajatorului	Liceul Industrial Nr. 2 (actual Liceul Teoretic „Tata Oancea”), Bocșa, Jud. Caraș-Severin
Tipul activităţii sau sectorul de activitate	Învățământ preuniversitar

Educaţie şi formare

Perioada	**2018**
Calificarea / diploma obţinută	Atestat de abilitare nr 3366/22.03.2018
Domenii principale studiate / competente dobândite	Studii universitare de doctorat domeniul Fizică
Perioada	**11.02- 14.02.2011**
Calificarea / diploma obţinută	Certificat CNFPA cod COR 241919
Domenii principale studiate / competente dobândite	Manager proiect
Numele şi tipul instituţiei de învăţământ / furnizorului de formare	SC KAIZEN Training & Consulting SRL, Nr. Ord. Reg. Com. /an: J16/1106/2009, CUI: 25957489 Adresa: Str. Doljului, nr 47, bl K2, ap 8, Craiova, Dolj
Perioada	**2003-2005**
Calificarea / diploma obţinută	Studii de master
Domenii principale studiate / competente dobândite	Modelare matematică în economie şi ştiinţă
Numele şi tipul instituţiei de învăţământ / furnizorului de formare	Universitatea de Vest Timișoara, Facultatea de Matematică și Informatică str. Vasile Pârvan, nr. 4 Timişoara, România
Perioada	**1992-1998**
Calificarea / diploma obţinută	Doctor în Fizică
Domenii principale studiate / competente dobândite	Fizica materiei condensate
Numele şi tipul instituţiei de învăţământ / furnizorului de formare	Universitatea de Vest Timișoara, Facultatea de Fizică str. Vasile Pârvan, nr. 4 Timişoara, România
Perioada	**1989**
Calificarea / diploma obţinută	Definitivat învăţământ preuniversitar
Domenii principale studiate / competente dobândite	Fizică
Numele şi tipul instituţiei de învăţământ / furnizorului de formare	Universitatea din Timișoara, Facultatea de Științe ale naturii, Secția Fizică str. Vasile Pârvan, nr. 4 Timişoara, România
Perioada	**15.09.1982-15.06.1986**
Domenii principale studiate / competente dobândite	Fizica materiei condensate
Numele şi tipul instituţiei de învăţământ / furnizorului de formare	Universitatea din Timișoara, Facultatea de Științe ale naturii, Secția Fizică str. Vasile Pârvan, nr. 4 Timişoara, România

Aptitudini şi competente personale

Limba maternă **Română**

Limbi străine cunoscute

	Comprehensiune		Vorbit		Scris
Autoevaluare	Abilităţi de ascultare	Abilităţi de citire	Interacţiune	Exprimare	
Nivel european (*)					
Limba engleza	B2 Utilizator experimentat	B2 Utilizator experimentat	B2 Utilizator experimentat	B2 Utilizator experimentat	B2 Utilizator experimentat
Limba franceza	B2 Utilizator experimentat	B2 Utilizator experimentat	B1 Utilizator independent	B1 Utilizator independent	B1 Utilizator independent
Limba germană	B1 Utilizator independent	B1 Utilizator independent	B1 Utilizator independent	B1 Utilizator independent	B1 Utilizator independent

(*) Cadrului european de referinţă pentru limbi

Competenţe şi abilităţi sociale

Abilități de comunicare, provenite din activitățile didactice și din lucrul direct cu studenții;
Abilități de ascultare, provenite din activitățile didactice și din lucrul direct cu studenții;
Spirit de echipă;

Competenţe şi aptitudini organizatorice

Experienţă în planificare şi coordonarea activităţilor didactice, activităţi şi programe specifice domeniului
Coordonez lucrări de licenţă, disertaţie, grad I, doctorat;
Coordonez şi gestionez activitatea de cercetare în domeniile: electrohidrodinamica sistemelor nanometrice disperse (în cadrul Facultăţii de Fizică) şi optimizarea cu unde sonore a proceselor de ardere) în colaborare cu firma de incinerare deşeuri SC ProAir Clean SA Timişoara.

Competenţe şi cunoştinţe de utilizare a calculatorului

Cunoștinte avansate de utilizare a Microsoft Office (Word, Excel and PowerPoint, Publisher);
Prelucrarea automată a datelor fizice (Microcal Origin, Table Curve)
Folosirea limbajelor programare orientate obiect (achizitii de date şi procesare cu LabView);
Modelarea matematică a fenomenelor fizice prin calculul cu elemente finite și rezolvări numerice (Quick Field, Comsol).

Permis de conducere

Categoria B

Informaţii suplimentare

Activitate de cercetare: membru în 5 contracte de cercetare, 26 articole în reviste cotate ISI din care 14 cu AIS>0.3, 4 articole singur autor, 12 corresponding sau prim autor, 47 lucrări prezentate şi publicate în volumele unor manifestări ştiinţifice naţionale şi internaţionale, autor a 3 cărţi in edituri recunoscute CNCSIS, editor la o carte aparuta la Editura Springer, editor la o carte aparuta la editura Cambridge Scholars Publishing.

Citari (fara autocitari): 387, HindexWOS=12, HindexGS=18, HindexScopus=13

Proiecte de cercetare – dezvoltare, granturi obţinute conduse ca director de proiect:

Tema: „***Reducerea emisiilor de nanoparticule prin optimizarea proceselor de filtrare a gazelor reziduale de ardere***", câstigat în cadrul programului IDEI nr. 175/25.10.2011, având codul PN-II-ID-PCE-2011-3-0762,
Sursa de finanţare: UEFISCDI, valoare 1028449 lei,
Perioada: 25.10.2011 – 24.10.2016.

Proiect Horizon 2020/Noaptea cercetatorilor
Manager proiect/responsabil UVT in anii: 2014, 2015, 2018, 2019, 2020, 2021

Titlul tezei de doctorat:
Contributii privind recuperarea unor materiale utile din deseuri industriale solide (1998)
Titlul tezei de abilitare:
Cercetari si studii privind metode fizice pentru recuperarea materialelor utile din deseurile solide si suspensii fluide (2017)
Conducator de doctorat afiliat Scolii Doctorale de Fizica din 2018
Din 2024 afiliat Scolii Doctorale de Stiinte Exacte si Stiintele Naturii
In prezent conducator a 4 teze de doctorat (1 doctorand international)

I. Articole in reviste cotate ISI - selectie

1. M. Lungu, Z. Schlett: Vertical drum eddy-current separator with permanent magnets, *International Journal of Mineral Processing*, Vol. 63, Issue 4, 207-216 (2001).
DOI: 10.1016/S0301-7516(01)00047-3
2. Z. Schlett, M. Lungu: Eddy-current separator with inclined magnetic disc, *Minerals Engineering*, Vol. 15, Issue 5, 365-367 (2002).DOI: 10.1016/S0892-6875(02)00025-0
3. M.Lungu, P.Rem: Eddy-Current Separation of Small Nonferrous Particles By a Single Disk Separator With Permanent Magnets, *IEEE Transaction on Magnetics*. Vol.39, Issue 4, 2062-2067 (2003).DOI: 10.1109/TMAG.2003.812724
4. M.Lungu: Electrical separation of plastic materials using the triboelectric effect, *Minerals Engineering*, Vol. 17, Issue 1, 69-75 (2004).DOI: 10.1016/j.mineng.2003.10.010
5. M.Lungu: Separation of small nonferrous particles using an angular rotary drum eddy-current separator with permanenet magnets, *International Journal of Mineral Processing*, Vol. 78, Issue 1, 22-30 (2005). DOI: 10.1016/j.minpro.2005.07.003
6. M.Lungu: Separation of small metallic nonferrous particles in low concentration from mineral wastes using dielectrophoresis, *International Journal of Mineral Processing*, Vol. 78, Issue 4, 215-219 (2006).DOI: 10.1016/j.minpro.2005.10.007
7. M. Lungu: Separation of small nonferrous particles using a two successive steps eddy-current separator with permanent magnets, *International Journal of Mineral Processing*, Vol. 93, Issue 2, 172–178, (2009). DOI: 10.1016/j.minpro.2009.07.012
8. M. Lungu, A. Neculae, M. Bunoiu: Some considerations on the dielectrophoretic manipulation of nanoparticles in fluid media, *Journal of optoelectronics and advanced materials*, Vol. 12, Issue 12, 2423-2426 (2010).
9. A. Neculae, M. Lungu, C.G. Biris, M. Bunoiu: Numerical analysis of nanoparticles behavior in a microfluidic channel under dielectrophoresis, *Journal of Nanoparticle Research*, Volume: 14, Issue: 1154, 1-12 (2012).DOI: 10.1007/s11051-012-1154-4
10. I. Malaescu, M. Lungu, R. Giugiulan and N. Strambeanu: The Clausius-Mossotti factor in low frequency field of the powders resulted from waste combustion, *Rom. Jour. Phys*, Vol. 59, No. 7–8, P. 862–872, 2014.
11. M. Lungu, A. Neculae and A. Lungu: Positive dielectrophoresis used for selective trapping of nanoparticles from flue gas in a gradient field electrodes device, *Journal of Nanoparticle Research*, Vol. 17 (12), 1-14, 2015. DOI: 10.1007/s11051-015-3304-y
12. A. Neculae, M. Bunoiu, A. Lungu and M. Lungu: Filtration of flue gas by retaining of nanoparticle in microfluidic devices using dielectrophoresis, *Romanian Reports in Physics,* Vol. 68, Nr. 3, 2016.
13. A. Neculae, M. Bunoiu, A. Lungu and M. Lungu: Filtration of flue gas in microfluidic devices using dielectrophoresis, *Romanian Journal of Physics,* Vol. 61, No. 5–6, 2016.
14. M. Lungu and N. Stefu: Study on particulate matter dispersion by correlating direct measurements with numerical simulations. Case study: Timisoara urban area, *International Journal of Environmental Science and Technology*, 2017, DOI: 10.1007/s13762-017-1521-x
15. M. Lungu and A. Neculae: Eddy current separation of small nonferrous particles using a complementary air-water method, *Separation Science and Technology*, Vol. 53(1), 126-135, 2018. DOI: 10.1080/01496395.2017.1380670
16. M. Poienar, A. Lungu, P. Sffirloaga, M. Lungu, C.V. Mihali, P. Vlazan: Use of ultrasound-assisted

co-precipitation route to obtain $CuMnO_2$ semiconductor nanomaterials, *Chemical Papers*, Vol. 73 (6) 1541–1546, 2019, doi.org/10.1007/s11696-019-00707-y
17. A. Catinean, L. Dascalescu, M. Lungu. et. al.: Improving the recovery of copper from electric cable waste derived from automotive industry by corona-electrostatic separation, Particulate Science and Technology, Vol. 39(4), 449-456, 2021,
DOI: 10.1080/02726351.2020.1756545
18. A. Benabderrahmane, C. Dani, K. Medles, T. Zeghloul, F. Tomasella, M. Lungu, L. Dascalescu, and A. Parenty: Effect of storage at different levels of relative humidity of ambient air on the tribo-electrostatic separation of granular plastics containing brominated flame retardants, IEEE Transactions on Industry Applications, vol. 59, 4990-4997, 2023.
DOI: 10.1109/TIA.2023.3272872
19. I.E. Achouri, C.Dani, T. Zeghloul, M. Lungu, and L. Dascalescu: Effect of ambient humidity on the tribo-electrostatic separation of granular plastic wastes, Particulate Science and Technology, Published online: 27 Dec 2023, DOI: 10.1080/02726351.2023.2295399
20. A. Vanciu Rau, R. Dinescu, M. Radulian, M. Lungu: Identification of Antrophic Activity Interference in the Seismic Catalogue for Banat Region, Acta Geophysica, under review,
DOI: 10.21203/rs.3.rs-2915932/v1

II. Articole in reviste indexate ISI- selectie

1. M. Lungu, A. Neculae, M. Bunoiu: *Some considerations on the dynamics of nanometric suspensions in fluid media*, PROCEEDINGS OF THE PHYSICS CONFERENCE: TIM-08. AIP Conference Proceedings, Volume 1131, Issue 1, pp. 164-168 (2009).DOI: 10.1063/1.3153440
2. A. Neculae, M. Bunoiu, M. Lungu: *Numerical simulation of bioparticle manipulation using dielectrophoresis*, Proceedings of the Physics Conference TIM-09. AIP Conference Proceedings, Volume 1262, Issue 1, pp. 144-149 (2010).DOI: 10.1063/1.3482222
3. A. Neculae, M. Lungu, M. Bunoiu, R. Giugiulan: *Electrohydro-dynamic modeling for manipulation of micro/nano particles in microfluidic systems*; AIP Conference Proceedings 1472, Proceedings of the physics conference TIM-11, Melville, New York, p. 155-161 (2012).
5. M. Lungu, R. Giugiulan, M. Bunoiu, N. Strambeanu, and A. Neculae: *Submicron particle trapping using traveling wave dielectrophoresis*; AIP Conference Proceedings 1564, 111 Melville, New York, 2013; p. 111-116, (2013) doi: 10.1063/1.4832804
6. A. Neculae, N. Strambeanu, A. Lungu, M. Bunoiu and M. Lungu: *Nanoparticle trapping from flue gas using dielectrophoresis*, AIP Conference Proceedings, Vol. 1694, Melville, New York, pp. 040004-1 - 040004-6, (2015), ISBN 978-0-7354-1341-2, ISSN 0094-243X.
doi: 10.1063/1.4937256
8. M. Lungu, A. Lungu, N. Stefu, A. Neculae and N. Strambeanu : *Analysis of airborne particulate matter pollution in Timisoara city urban area and correlations between measurements and meteorological data*, AIP Conference Proceedings, Vol. 1796, Melville, New York, pp. 040011-1-040011-6, (2016) doi: 10.1063/1.4972389
9. A.Vanciu Rău, M. Lungu and M. Radulian: Aspects Regarding the Seismic Monitoring of the Banat Region, AIP Conference Proceedings 2843, 040003 (2023), DOI: 10.1063/5.0151989
10. G.D. Lascu, M. Lungu and A. Neculae: The Control of Micro Particles Motion in Standing Wave Acoustic Fields, AIP Conference Proceedings 2843, 040009 (2023),
DOI: 10.1063/5.0164764
11. C. Dani and M. Lungu: Physical Factors that Influence the Process of Triboelectrostatic Separation of Granular Plastics, AIP Conference Proceedings 2843, 040013 (2023),
DOI: 10.1063/5.0151889
12. C. Dani, T. Zeghloul, M. Lungu, I.E. Achouri, D. Aouimeur, and L. Dascalescu, Modification of the triboelectric properties of polymers exposed to the long-term action of ambient humidity, Proceeding of 2023 IEEE Industry Applications Society Annual Meeting (IAS), pp. 1-3, 2023, DOI: 10.1109/IAS54024.2023.10406481

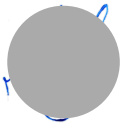
Specializări:

1. Junie-Julie 1997 TU Bergakademie Freiberg, Germany (Prof. Dr. G. Schubert): *Kleinetailchen Elektrosortierung von Abfällen und mineralischen Rohstoffen,* (Electrical separation of reduced size particles from mineral and indusrial wastes).
2. Januarie-Februarie 2000 stagiu de cercetare la HAMOS gmbh (General manager Eng. Dr. R. Koenlechner), Germania: *Separation of nonferrous metals from industrial wastes by using electrical and eddy-currens separation methods*.
3. Julie 2002 stagiu de cercetare la TU Delft Holland (Prof. Dr. P. Rem): *Magnus separation of non-ferrous metals from Amsterdam incinerator bottom ash*.

Declar pe propria răspundere că datele prezentate sunt în conformitate cu realitatea.

Timişoara,
04.04.2024

Prof. Univ. Dr. Habil. Mihail LUNGU



Fișa de evaluare CNATDCU

Prof. dr. habil. Mihail LUNGU.

1. Activitatea didactică și profesională

A2 - Capitole de cărți în edituri internaționale recunoscute *Web of Science*, în calitate de autor

Nr. crt.	**Titlul capitolului - titlul cărții / titlul Review-ului**	Autori	Editura, an / revista, an, pagini, link (dacă este cazul)	Punctaj $1/n_i^{ef}$
1.	Chapter I: *Nanoparticles: Definition, Classification and General Physical Properties*, Book: Nanoparticles' Promises and Risks; Characterization, Manipulation, and Potential Hazards to Humanity and the Environment	N. Strambeanu, L. Demetrovici, D. Dragos and M. Lungu	Springer Science+Business Media 2015 ISBN: 978-3-319-11727-0	0.25
2.	Chapter 13: *Nanoparticle Characterization Using Nanoparticle Tracking Analysis*, Book: Nanoparticles' Promises and Risks; Characterization, Manipulation, and Potential Hazards to Humanity and the Environment	A. Lungu, M. Lungu, A. Neculae and R. Giugiulan	Springer Science+Business Media 2015 ISBN: 978-3-319-11727-0	0.25
3.	Chapter 14: *Dielectrophoresis Used for Nanoparticle Manipulation in Microfluidic Devices*, Book: Nanoparticles' Promises and Risks; Characterization, Manipulation, and Potential Hazards to Humanity and the Environment	M. Lungu, M. Bunoiu and A. Neculae	Springer Science+Business Media 2015 ISBN: 978-3-319-11727-0	0.33
4.	Chapter 2: *Methods of Morpho-structural Characterization and of Determination of the Electrical and Magnetic Properties of Metal Oxides*, Book: The Fundamentals and Challenges of Oxide Materials	I. Malaescu, A. Ercuta, P. Sfirloaga, M. Poienar, P. Vlazan, A. Lungu, C.N. Marin, M. Lungu	Cambridge Scholars Publishing 2023, ISBN: 1-5275-9166-2	0.125
5.	Chapter 4: *Applications*, Book: The Fundamentals and Challenges of Oxide Materials	C.N. Marin, M. Lungu, M. Bunoiu, I. Malaescu	Cambridge Scholars Publishing 2023, ISBN: 1-5275-9166-2	0.25
Punctaj total indicator $\mathbf{A_2}$				**1.205**

Editurile recunoscute Web of Science se găsesc pe site-ul Web of Science – Master Book List- Publishers (http://wokinfo.com/mbl/publishers/)

Se acordă $1/n_i^{ef}$ *puncte pentru fiecare item.*

A3 - Cărți în edituri internaționale recunoscute *Web of Science* în calitate de editor

Nr. crt.	**Titlul**	Editori	Editura, an, link (dacă este cazul)	Punctaj $0.5/n_i^{ef}$
1.	Nanoparticles' Promises and Risks; Characterizatin, Manipulation, and	M. Lungu, A. Neculae, M. Bunoiu and C.G. Biris	Springer Science+Business	0.125

	Potential Hazards to Humanity and Environment,		Media 2015 ISBN: 978-3-319-11727-0	
2.	The Fundamentals and Challenges of Oxide Materials	M. Lungu and C.N. Marin	Cambridge Scholars Publishing 2023, ISBN: 1-5275-9166-2	0.25
Punctaj total indicator **A_3**				**0.375**

Editurile recunoscute Web of Science se găsesc pe site-ul Web of Science – Master Book List- Publishers (http://wokinfo.com/mbl/publishers/)

Se acordă $0.5/n_i^{ef}$ *puncte pentru fiecare item.*

A4 - Cărți, manuale, îndrumătoare de laborator în edituri naționale sau alte edituri internaționale ca autor, note interne,prezentari sustinute pentru aprobarea analizelor de date in cadrul colaborarilor mari

Nr. crt.	**Titlul**	Autori	Editura, an, link (dacă este cazul)	Punctaj $0.5/n_i^{ef}$
1.	Metode de separare a materialelor reciclabile	M. Lungu	Editura Universitatii de Vest, Timisoara, 2005	0.5
2.	Plasma Physics and Applications	M. Lungu	Editura Universitatii de Vest, Timisoara, 2006	0.5
3.	Plasma Physics, Curs,	Z. Schlett, M. Lungu, M. Rasa	Tipografia Universitatii de Vest din Timisoara, 1994	0.175
4.	Metode fizice de separare a materialelor, Curs,	Lungu M.	Tipografia Universitatii de Vest din Timisoara, 2000	0.5
5.	Materiale si dispozitive semiconductoare, Indrumator de laborator, partea a II-a,	Z. Schlett, M. Lungu	Tipografia Universitatii de Vest din Timisoara, 1993	0.25
6.	Aplicatii in LabView, Lucrari de laborator (nota interna, format electronic)	M. Lungu,	Link: www.physics.uvt.ro/~lmihai/Aplicatii LabView.zip, 2015	0.5
7.	Researches and studies on Physical Methods for Recovery of Useful Materials from Solid Wastes and Fluid Media Suspensions	M. Lungu	EUROBIT, Timisoara, 2019. ISBN: 978-973-132-527-9	0.5
8.	Traductoare si sisteme de achizitie de date. Curs	M. Lungu	Link: https://www.researchgate.net/publication/361176235_TRADUCTORI_ACHIZITIA_SI_PROCESAREA_DATELOR_IN_MEDICINA_Curs	0.5
9.	Traductori, sisteme de achizitie de date si procesarea datelor in medicina. Indrumator de laborator	M. Lungu	Editura EUROBIT, Timisoara, 2022, ISBN: 978-973-132-876-8	0.5
10.	Fizica Plasmei. Notite de curs	M. Lungu	Link: https://www.researchgate.net/publication/361176216_FIZICA_PLASMEI_Notite_de_Curs_Facultatea_de_Fizica_Universitatea_de_Vest_din_Timisoara	0.5
11.	Fizica Corpului Solid. Notite de Curs	M. Lungu	Link: https://www.researchgate.net/publication/361176341_FIZICA_CORP	0.5

			ULUI_SOLID_Notite_de_Curs_Facultatea_de_Fizica_Universitatea_de_Vest_din_Timisoara	
Punctaj total indicator **A_4**				**4.925**

Se acordă $0.5/n_i^{ef}$ *puncte pentru fiecare item.*

A5 - Capitole de cărți în edituri naționale sau alte edituri internaționale ca autor

Nr. crt.	**Titlul capitolului - titlul cărții**	Autori	Editura, an, link (dacă este cazul)	Punctaj $0.2/n_i^{ef}$
1.	Cap. 2 : Forte de gradient in camp electric, Carte : Forte de gradient si aplicatii	I. Hrianca, M. Lungu, 1995	Ed. Mirton Timisoara, 1995	0.1
2.	Cap. 3 : Forte de gradient in camp magnetic, Carte : Forte de gradient si aplicatii	I. Hrianca, M. Lungu, 1995	Ed. Mirton Timisoara, 1995	0.1
Punctaj total indicator **A_5**				**0.2**

Se acordă $0.2/n_i^{ef}$ *puncte pentru fiecare item.*

A6 - Lucrări în extenso (cel puțin 3 pagini) publicate în Proceedings-uri indexate ISI

Nr. crt.	**Titlul**	Autori	Revista, editura, an, link (dacă este cazul)	Punctaj $0.2/n_i^{ef}$
1.	Some considerations on the dynamics of nanometric suspensions in fluid media,	M. Lungu, A. Neculae, M. Bunoiu	AIP Conference Proceedings, Volume 1131, Issue 1, pp. 164-168 DOI: 10.1063/1.3153440 (2009)	0.07
2.	Numerical simulation of bioparticle manipulation using dielectrophoresis,	A. Neculae, M. Bunoiu, M. Lungu	AIP Conference Proceedings, Volume 1262, Issue 1, pp. 144-149 (2010). DOI: 10.1063/1.3482222	0.07
3.	Numerical study regarding the influence of electrodes' geometry on the dielectrophoretic forces;	A. Neculae, M. Lungu, T. Nicolici-Schultz, M. Bunoiu	AIP Conference Proceedings, Volume 1387, Proceedings of the physics conference TIM-10, Timisoara, ROMANIA, pp. 270-275 ISBN 978-0-7354-0951-4 (2011)	0.05
4.	Electrohydro-dynamic modeling for manipulation of micro/nano particles in microfluidic systems;	A. Neculae, M. Lungu, M. Bunoiu, R. Giugiulan	AIP Conference Proceedings 1472, Proceedings of the physics conference TIM-11, Melville, New York, p. 155-161, (2012)	0.05
5.	Submicron particle trapping using traveling wave dielectrophoresis;	M. Lungu, R. Giugiulan, M. Bunoiu, N. Strambeanu, and A. Neculae	AIP Conference Proceedings 1564, 111 Melville, New York, 2013; p. 111-116, (2013) doi: 10.1063/1.4832804	0.04
6.	Study of a 3D DEP-based microfluidic system for selective	M. Lungu, S. Balasoiu, M. O. Bunoiu and A. Neculae	AIP Conference Proceedings 1634, Melville, New York, p.	0.05

	nanoparticle manipulation,		89-94, (2014) doi: 10.1063/1.4903019.	
7.	Nanoparticle trapping from flue gas using dielectrophoresis,	A. Neculae, N. Strambeanu, A. Lungu, M. Bunoiu and M. Lungu,	AIP Conference Proceedings, Vol. 1694, Melville, New York, pp. 040004-1 - 040004-6, ISBN 978-0-7354-1341-2, ISSN 0094-243X. (2015) doi: 10.1063/1.4937256	0.04
8.	Analysis of airborne particulate matter pollution in Timisoara city urban area and correlations between measurements and meteorological data	M. Lungu, A. Lungu, N. Stefu, A. Neculae and N. Strambeanu,	AIP Conference Proceedings, Vol. 1796, Melville, New York, pp. 040011-1- 040011-6, (2016) doi: 10.1063/1.4972389	0.04
9.	Magneto-optical transmittance observed in magnetorheological suspensions films	E. Anitas, I. Bica, M. Bunoiu, I. Malaescu, C.N. Marin, A. Ercuta, M. Balasoiu, M. Lungu, G. Pascu	AIP Conference Proceedings 2218, 030016 (2020); https://doi.org/10.1063/5.0002485	0.02
	Aspects Regarding the Seismic Monitoring of the Banat Region,	A.Vanciu Rău, M. Lungu and M. Radulian	AIP Conference Proceedings 2843, 040003 (2023), DOI: 10.1063/5.0151989	0.067
	The Control of Micro Particles Motion in Standing Wave Acoustic Fields,	G.D. Lascu, M. Lungu and A. Neculae:	AIP Conference Proceedings 2843, 040009 (2023), DOI: 10.1063/5.0164764	0.067
	Physical Factors that Influence the Process of Triboelectrostatic Separation of Granular Plastics,	C. Dani and M. Lungu	AIP Conference Proceedings 2843, 040013 (2023), DOI: 10.1063/5.0151889	0.1
	Modification of the triboelectric properties of polymers exposed to the long-term action of ambient humidity	C. Dani, T. Zeghloul, M. Lungu, I.E. Achouri, D. Aouimeur, and L. Dascalescu	Proceeding of 2023 IEEE Industry Applications Society Annual Meeting (IAS), pp. 1-3, 2023, DOI: 10.1109/IAS54024.2023.10406481	0.033
Punctaj total indicator **A_6**				**0.7**

Se acordă $0.2/n_i^{ef}$ *puncte pentru fiecare item.*

Documente justificative: Copie în format hard, în format electronic sau link pe pagina web a editurii .

A8 - Brevete de invenție naționale acordate

Nr. crt.	**Titlul**	Autori	Autoritatea care a acordat brevetul link (dacă este cazul)	Punctaj $0.5/n_i^{ef}$
1.	Separator magnetic, pentru particule metalice, neferomagnetice, din amestecuri heterogene, Brevet de inventie nr. 118701	Z. Schlett, M. Lungu 31.07.2003	OSIM Romania	0.25
Punctaj total indicator **A_8**				**0.25**

Se acordă $0.5/n_i^{ef}$ *puncte pentru fiecare item.*

Documente justificative: Copie în format hard, în format electronic sau link pe pagina autorității care a acordat brevetul .

A10 – Director /responsabil pentru proiecte de cercetare câștigate prin competiție națională sau internațională; proiectele de la punctul A_9 se exclud).

Nr. crt.	**Titlul proiectului**	Calitatea (director sau responsabil)	Autoritatea contractantă, link (dacă este cazul)	Punctaj $V/100.000$
1.	*Reduction of nanoparticle emissions by the optimization of residual combustion gases filtering processes* PN-II-ID-PCE-2011-3-0761	Director	UEFISCDI, www.nanodep.com	220947/100000= 2.2
Punctaj total indicator **A_{10}**				**2.2**

Se acordă $V/100.000$ *puncte pentru fiecare item, unde V este valoarea contractului în euro.*
Sumele în lei sau în alte valute se convertesc în euro la cursul mediu din anul respectiv conform www.bnr.ro pentru perioada de după 1999 și la cursul din 1999 pentru perioada anterioară.
Responsabilii de proiect sunt cei care conduc o echipă de cercetare, fiind menționați ca atare în proiectul depus; în cazul lor se consideră doar suma aferentă echipei conduse.
Documente justificative: Copie în format hard sau în format electronic dupa devizul postcalcul.

Punctaj total obținut pentru activitatea didactică și profesională:

$A = \sum_{i=1}^{10} A_i$ **A=9.862**

2. Activitatea de cercetare

2.1 – Articole științifice originale, în extenso, ca autor

Nr.	**Referinţa bibliografică** (Autori, Titlul, Revista, Vol., anul, pag. încep. – pag.sf.	AIS_i	n_i	n_i^{ef}	AIS_i / n_i^{ef}
1.	**M. Lungu**, Z. Schlett: *Vertical drum eddy-current separator with permanent magnets*, International Journal of Mineral Processing, Vol. 63 (4), pp. 207-216 (2001) doi:10.1016/S0301-7516(01)00047-3	0.4	2	2	0.2
2.	Z. Schlett , F. Claici, I. Mihalca and **M. Lungu**: *A new static separator for metallic particles from metal-plastic mixtures, using eddy currents*, Minerals Engineering, Vol. 15 (1-2), pp. 111-113 (2002) doi:10.1016/S0892-6875(01)00215-1	0.4	4	4	0.1
3.	R. Meier-Staude, Z. Schlett, **M. Lungu**, D. Baltateanu: *A new possibility in Eddy-Current separation*, Minerals Engineering Vol. 15, pp. 287-291 (2002) https://doi.org/10.1016/S0892-6875(02)00007-9	0.4	4	4	0.1
4.	Z. Schlett, **M. Lungu**: *Eddy-current separator with inclined magnetic disc*, Minerals Engineering, Vol. 15 (5), pp.365-367 (2002), doi:10.1016/S0892-6875(02)00025-0	0.4	2	2	0.2
5.	R. Koenlechner, Z. Schlett, **M. Lungu**, C. Caizer: *A new wet Eddy-current separator*, Resources, Conservation and Recycling, Vol. 37 (1), pp. 55-60 (2002), doi:10.1016/S0921-3449(02)00057-5	0.2	4	4	0.05
6.	**M. Lungu**, P. Rem: *Separation of small non-ferrous particles using an inclined drum eddy-current separator with permanent magnets*, IEEE Transaction on Magnetics. Vol.38 (3), pp. 1534-1538 (2002) doi.org/10.1109/20.999128	0.5	2	2	0.25
7.	**M.Lungu**, P.Rem: *Eddy-Current Separation of Small Nonferrous Particles By a Single Disk Separator With Permanent Magnets*, IEEE Transaction on Magnetics. Vol.39 (4), pp. 2062-2067 (2003) doi 10.1109/TMAG.2003.812724	0.5	2	2	0.25
8.	**M.Lungu**: *Electrical separation of plastic materials using the triboelectric effect*, Minerals Engineering, Vol. 17 (1), pp. 69-75 (2004) doi:10.1016/j.mineng.2003.10.010	0.3	1	1	0.3
9.	**M.Lungu**: *Separation of small nonferrous particles using an angular rotary drum eddy-current separator with permanenet magnets*, International Journal of Mineral Processing, Vol. 78 (1), pp. 22-30 (2005) doi.org/10.1016/j.minpro.2005.07.003	0.7	1	1	0.7
10.	**M.Lungu**: *Separation of small metallic nonferrous particles in low concentration from mineral wastes using dielectrophoresis*, International Journal of Mineral Processing, Vol. 78 (4), pp. 215-219 (2006) doi.org/10.1016/j.minpro.2005.10.007	0.6	1	1	0.6
11.	**M. Lungu**: *Separation of small nonferrous particles using a two successive steps eddy-current separator with permanent magnets*, International Journal of Mineral Processing, Vol. 93 (2), pp. 172–178, (2009) doi.org/10.1016/j.minpro.2009.07.012	0.497	1	1	0.497
12.	**M. Lungu**, A. Neculae and M. Bunoiu: *Some considerations on the dielectrophoretic manipulation of nanoparticles in fluid media*, Journal of Optoelectronics and Advanced Materials, Vol. 12 (12), pp. 2423-2426 (2010)	0.11	3	3	0.037

13.	**M. Lungu**, A. Neculae, M. Bunoiu and N. Strambeanu: *Some considerations on the nanoparticles manipulation in fluid media using dielectrophoresis*, Romanian Journal of Physics, 56 (5-6), pp. 749-756 (2011) .	0.09	4	4	0.0225
14.	**M. Lungu**, A. Neculae, C.G. Biris, M. Bunoiu: *Numerical analysis of nanoparticles behaviorin a microfluidic channel under dielectrophoresis*, Journal of Nanoparticle Research, Vol. 14 (10), art. no. 1154. (2012).	0.7	4	4	0.175
15.	R. Giugiulan, I. Malaescu, **M. Lungu** and N. Strambeanu: *The Clausius-mossotti factor in low frequency field of the powders resulted from wastes combustion*, Romanian Journal of Physics, Vol. 59 (7-8), pp. 862-872 (2014)	0.165	4	4	0.041
16.	A. Neculae, R. Giugiulan, M. Bunoiu, and **M. Lungu**: *Effects of fluid flow velocity upon nanoparticle distribution in microfluidic devices under dielectrophoresis*, Romanian Reports in Physics, Vol. 66 (3), pp. 754-764 (2014)	0.21	4	4	0.052
17.	**M. Lungu**, A. Neculae and A. Lungu: Positive dielectrophoresis used for selective trapping of nanoparticles from flue gas in a gradient field electrodes device, *Journal of Nanoparticle Research*, Vol. 17 (12), 1-14, 2015, DOI: 10.1007/s11051-015-3304-y	0.5	3	3	0.167
18.	A. Neculae, M. Bunoiu, A. Lungu and **M. Lungu**: Filtration of flue gas by retaining of nanoparticle in microfluidic devices using dielectrophoresis, *Romanian Reports in Physics*, Vol. 68, Nr. 3, 2016.	0.242	4	4	0.060
19.	A. Neculae, M. Bunoiu, A. Lungu and **M. Lungu**: Filtration of flue gas in microfluidic devices using dielectrophoresis, *Romanian Journal of Physics*, Vol. 61, No. 5–6, 2016.	0.243	4	4	0.060
20.	**M. Lungu** and N. Stefu: Study on particulate matter dispersion by correlating direct measurements with numerical simulations. Case study: Timisoara urban area, *International Journal of Environmental Science and Technology*, 2017, DOI: 10.1007/s13762-017-1521-x	0.37	2	2	0.185
21.	**M. Lungu** and A. Neculae: Eddy current separation of small nonferrous particles using a complementary air-water method, *Separation Science and Technology*, Vol. 53(1), 126-135, 2018. DOI: 10.1080/01496395.2017.1380670	0.31	2	2	0.15
22.	M. Poienar, A. Lungu, P. Sffirloaga, **M. Lungu**, C.V. Mihali, P. Vlazan: Use of ultrasound-assisted co-precipitation route to obtain $CuMnO_2$ semiconductor nanomaterials, *Chemical Papers*, Vol. 73 (6) 1541–1546, 2019, doi.org/10.1007/s11696-019-00707-y	0.3	6	6	0.05
23.	A. Catinean, L. Dascalescu, **M.Lungu.** et. al.: Improving the recovery of copper from electric cable waste derived from automotive industry by corona-electrostatic separation, *Particulate Science and Technology*, 1-8, 2020, doi: 10.1080/02726351.2020.1756545	0.2	5	5	0.04
24.	A. Benabderrahmane, C. Dani, K. Medles, T. Zeghloul, F. Tomasella, M. Lungu, L. Dascalescu, and A. Parenty: Effect of storage at different levels of relative humidity of ambient air on the tribo- electrostatic separation of granular plastics containing brominated flame retardants, *IEEE Transactions on Industry Applications*, vol. 59, 4990-4997, 2023. DOI: 10.1109/TIA.2023.3272872	0.3	7	6	0.05
25.	I.E. Achouri, C.Dani, T. Zeghloul, M. Lungu, and L. Dascalescu: Effect of ambient humidity on the tribo-electrostatic	0.3	5	5	0.06

	separation of granular plastic wastes, *Particulate Science and Technology*, 2023, DOI: 10.1080/02726351.2023.2295399				
Punctaj total indicator 2.1					**I =4.4**

Documente justificative: Copie în format hard, în format electronic sau link pe pagina web a revistei.
Precizări:

- *AIS_i – scorul de influenţă absolut al revistei respective din anul de publicare (conform cu www.eigenfactor.org*
- n_i^{ef} *reprezintă numărul efectiv de autori ai itemului i și ia următoarele valori:*

$$n_i^{ef} = \begin{cases} n_i, & n_i \le 5 \\ (n_i + 5)/2, & n_i \in [5,15] \\ (n_i + 15)/3, & n_i \in [15,75] \\ (n_i + 45)/4, & n_i \ge 75 \end{cases}$$

2.2 –Articole științifice originale în extenso ca prim autor sau autor corespondent, conform menţiunilor de pe articol.

Nr.	**Referinţa bibliografică** (Autori, Titlul, Revista, Vol., anul, pag.$_{\text{inceput}}$-pag.$_{\text{sfârşit}}$)	AIS_i
1.	**M. Lungu**, Z. Schlett: *Vertical drum eddy-current separator with permanent magnets*, International Journal of Mineral Processing, Vol. 63 (4), pp. 207-216 (2001) doi:10.1016/S0301-7516(01)00047-3	0.4
2.	**M. Lungu**, P. Rem: *Separation of small non-ferrous particles using an inclined drum eddy-current separator with permanent magnets*, IEEE Transaction on Magnetics. Vol.38 (3), pp. 1534-1538 (2002)	0.5
3.	**M.Lungu**, P.Rem: *Eddy-Current Separation of Small Nonferrous Particles By a Single Disk Separator With Permanent Magnets*, IEEE Transaction on Magnetics. Vol.39 (4), pp. 2062-2067 (2003) doi 10.1109/TMAG.2003.812724	0.5
4.	**M.Lungu**: *Electrical separation of plastic materials using the triboelectric effect*, Minerals Engineering, Vol. 17 (1), pp. 69-75 (2004) doi:10.1016/j.mineng.2003.10.010	0.3
5.	**M.Lungu**: *Separation of small nonferrous particles using an angular rotary drum eddy-current separator with permanenet magnets*, International Journal of Mineral Processing, Vol. 78 (1), pp. 22-30 (2005)	0.7
6.	**M.Lungu**: *Separation of small metallic nonferrous particles in low concentration from mineral wastes using dielectrophoresis*, International Journal of Mineral Processing, Vol. 78 (4), pp. 215-219 (2006)	0.6
7.	**M. Lungu**: *Separation of small nonferrous particles using a two successive steps eddy-current separator with permanent magnets*, International Journal of Mineral Processing, Vol. 93 (2), pp. 172–178, (2009)	0.497
8.	**M. Lungu**, A. Neculae and M. Bunoiu: *Some considerations on the dielectrophoretic manipulation of nanoparticles in fluid media*, Journal of Optoelectronics and Advanced Materials, Vol. 12 (12), pp. 2423-2426 (2010) .	0.11
9.	**M. Lungu**, A. Neculae, M. Bunoiu and N. Strambeanu: *Some considerations on the nanoparticles manipulation in fluid media using dielectrophoresis*, Romanian Journal of Physics, 56 (5-6), pp. 749-756 (2011) .	0.09
10.	**M. Lungu**, A. Neculae, C.G. Biris, M. Bunoiu: *Numerical analysis of nanoparticles behaviorin a microfluidic channel under dielectrophoresis*, Journal of Nanoparticle Research, Vol. 14 (10), art. No. 1154. (2012).	0.7
11.	**M. Lungu**, A. Neculae and A. Lungu: Positive dielectrophoresis used for selective trapping of nanoparticles from flue gas in a gradient field electrodes device, *Journal of Nanoparticle Research*, Vol. 17 (12), 1-14 (2015) doi: 10.1007/s11051-015-3304-y	0.5
12.	A. Neculae, M. Bunoiu, A. Lungu and **M. Lungu**: Filtration of flue gas by retaining of	0.242

	nanoparticle in microfluidic devices using dielectrophoresis, *Romanian Reports in Physics*, Vol. 68, Nr. 3 (2016)	
13.	A. Neculae, M. Bunoiu, A. Lungu and **M. Lungu**: Filtration of flue gas in microfluidic devices using dielectrophoresis, *Romanian Journal of Physics*, Vol. 61, No. 5–6 (2016)	0.243
14.	**M. Lungu** and N. Stefu: Study on particulate matter dispersion by correlating direct measurements with numerical simulations. Case study: Timisoara urban area, *International Journal of Environmental Science and Technology*, In press 2017, DOI: 10.1007/s13762-017-1521-x	0.37
15.	**M. Lungu** and A. Neculae: Eddy current separation of small nonferrous particles using a complementary air-water method, *Separation Science and Technology*, Vol. 53(1), 126-135, 2018. DOI: 10.1080/01496395.2017.1380670	0.31
Punctaj total indicator 2.2		**P =6.6**

Precizări:

- *AIS_i – scorul de influenţă absolut al revistei respective din anul de publicare (conform cu www.eigenfactor.org pentru articolele publicate pana in 2006, respectiv Journal Citation Reports (ISI web of Science)incepand cu 2007 (www.isiknowledge.com)); în cazul în care anul de publicare nu se regăseşte în baza de date, se va alege valoarea corespunzătoare anului cel mai apropiat de cel în care a fost publicat articolul.*
- *Nu se iau în considerare articolele la care autorii sunt indicaţi în ordinea alfabetică a numelui şi candidatul este prim-autor exclusiv datorită numelui acestuia şi ordonării alfabetice.*

I=4.4 P=6.6

3. Recunoașterea impactului activității

3.1. Citări în reviste științifice cu factor de impact care se regasesc in InCites Journal Citation Reports sau in carti in edituri recunoscute Web of Science. Nu se iau in considerare citarile provenind din articole care au ca autor sau coautor candidatul.

Nr. publ. citată	Nr. publ. care citează	Referința bibliografică a publicației care citează (Autori, Titlul, Revista, Vol., anul, pag.$_{\text{inceput}}$-pag.$_{\text{sfârșit}}$)	c_i al publ. citate	n_i^{ef} al publ. citate	Punctaj $\frac{c_i}{n_i^{ef}}$
I.	**M. Lungu**, Z. Schlett: *Vertical drum eddy-current separator with permanent magnets*, International Journal of Mineral Processing, Vol. 63, 207-216 (2001)		14	2	**7**
	1.	An environmental friendly recovery production line of waste toner cartridges, Authors: Ruan Jujun; Li Jia; Xu Zhenming Source: Journal of Hazardous Materials, Vol. 185 (2-3), pp. 696-702 (2011) https://doi.org/10.1016/j.jhazmat.2010.09.074			
	2.	A new model of repulsive force in eddy current separation for recovering waste toner cartridges, Authors: Ruan Jujun; Li Jia; Xu Zhenming Source: Journal of Hazardous Materials, Vol. 192 (1), pp. 307-313 (2011) https://doi.org/10.1016/j.jhazmat.2011.05.025			
	3.	Approaches to Improve Separation Efficiency of Eddy Current Separation for Recovering Aluminum from Waste Toner Cartridges Authors: Ruan Jujun; Xu Zhenming, Source: Environ. Sci. Technol., Vol. 46 (11), pp. 6214–6221 (2012) doi: 10.1021/es3008358			
	4.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 242-248 (2013)			
	5.	Environment-friendly technology for recovering nonferrous metals from e-waste: Eddy current separation, Authors: Ruan, J.,Qian, Y.,Xu, Z., Source: Resources, Conservation and Recycling, Vol. 87, pp. 109–116 (2014) https://doi.org/10.1016/j.resconrec.2014.03.017			

	6.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 177-183 (2014)			
	7.	Constructing environment-friendly return road of metals from e-waste: Combination of physical separation technologies, Authors: Ruan, J.,Xu, Z., Source: Renewable and Sustainable Energy Reviews, Vol. 54, pp. 745-760 (2016) http://dx.doi.org/10.1016/j.rser.2015.10.114			
	8.	Key factors of eddy current separation for recovering aluminum from crushed e-waste, Authors: Ruan, J., et. al., Source: Waste Management, Vol. 60, pp. 84-90 (2017) http://dx.doi.org/10.1016/j.wasman.2016.08.018			
	9.	Hollow Aluminum Particle in Eddy Current Separation of Recovering Waste Toner Cartridges, Authors: Zheng, J., et. al., Source: ACS Sustainable Chem. Eng., Vol. 5(1), pp. 161-167 (2017) doi: 10.1021/acssuschemeng.6b01168			
	10.	An analytic model for eddy current separation, Authors: Nagel, J.R., Source: Minerals Engineering 127, pp. 277-285 (2018)			
	11.	Green processes for electronic waste recycling: A review, Authors: Sabah M. Abdelbasir et. al. Source: Journal of Sustainable Metallurgy 4(2), pp. 295-311 (2018) https://doi.org/10.1007/s4083			
	12.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			
	13.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			
	14.	Multiphase modelling of the continuous metallurgical purification process for impurity removing of recycled aluminium, Authors: XiaoweiXu et. Al., Source: Journal of Materials Research and Technology, 18, pp. 830-840 (2022) https://doi.org/10.1016/j.jmrt.2022.03.003			
		……			
II.	Z. Schlett , F. Claici, I. Mihalca and **M. Lungu**: *A new static separator for metallic particles from metal-plastic mixtures, using eddy currents*, Minerals Engineering, Vol. 15 (1-2), pp. 111-113 (2002)		13	4	**3.75**
	1.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 242-248 (2013)			
	2.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 177-183 (2014)			
	3.	Waste Printed Circuit Boards recycling: an extensive assessment of current status, Authors: Ghosh, B. et. al., Source: Journal of Cleaner Production, Vol. 94, pp. 5-19 (2015) https://doi.org/10.1016/j.jclepro.2015.02.024			
	4.	Design and analysis of creep failure in clinker feeding system on VRPM circuit maintenance, Authors: Gandhi, A.C.M. et. Al. Source: International Journal of Applied Engineering Research 10(11), pp. 28073-28096 (2015)			
	5.	Environmental-energy analysis and the importance of design and remanufacturing recycled materials, Authors: Jimenez F et. al., Source: International Journal on Interactive Design and Manufacturing, Vol. 10 (3), pp 241-249 (2016) link.springer.com/article/10.1007/s12008-016-0321-8			
	6.	Resourceful recycling process of waste desktop computers: A review study, Author: Khandakar Md Habib Al Razi, Source: Resources, Conservation and Recycling, Vol. 110, pp. 30-47 (2016)			

		http://dx.doi.org/10.1016/j.resconrec.2016.03.017			
	7.	Recycling of plastic solid waste: A state of art review and future applications, Authors: Singh N. et. al., Source: Composites Part B: Engineering, Vol. 115, pp 409-422 (2017) http://dx.doi.org/10.1016/j.compositesb.2016.09.013			
	8.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			
	9.	Advancements in the treatment and processing of electronic waste with sustainability: a review of metal extraction and recovery technologies, Authors: Emily Hsu et. al., Source: Green Chem. 21, pp. 919-936 (2019) doi: 10.1039/C8GC03688H			
	10.	Advanced Recovery Techniques for Waste Materials from IT and Telecommunication Equipment Printed Circuit Boards, Authors: Vermesan H et. al., Source: Sustainability 12 (1), Art. No. 74 (2020), DOI: 10.3390/su12010074			
	11.	Pickering emulsions stabilized with PANI-NP. Study of the thermoresponsive behavior under heating and radiofrequency irradiation, Authors: Silvestre Bongiovanni Abel et. Al., Source: Journal of Applied Polymer Science 138(26)/50625 (2021) https://doi.org/10.1002/app.50625			
	12.	Metals extraction processes from electronic waste: constraints and opportunities, Review Article Authors: Shovra Chandra Chakraborty et. Al., Source: *Environmental Science and Pollution Research* (2022) https://link.springer.com/article/10.1007/s11356-022-19322-8			
	13.	High added-value materials recovery using electronic scrap-transforming waste to valuable products, Authors: Pushpa Gautam et. Al., Source: Journal of Cleaner Production 330, 129836 (2022) https://doi.org/10.1016/j.jclepro.2021.129836			
		……			
III.	**M. Lungu**, P. Rem: *Separation of small non-ferrous particles using an inclined drum eddy-current separator with permanent magnets*, IEEE Transaction on Magnetics. Vol.38 (3), 1534-1538 (2002)		10	2	**5**
	1.	A virtual impactor for hydrodynamic particle classification, Authors: Kim YH et. al., Source: TRANSDUCERS '07 & EUROSENSORS XXI, DIGEST OF TECHNICAL PAPERS, VOLS 1 AND 2, Transducers 2007, IEEE Proceeding Paper			
	2.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 242-248 (2013)			
	3.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 177-183 (2014)			
	4.	Modelling of post-fragmentation waste stream processing within UK shredder facilities, Authors: Coates, G. and Rahimifard, S. Source: Waste Management, Vol. 29 (1) , pp. 44-53 (2009) https://doi.org/10.1016/j.wasman.2008.03.006			
	5.	Design and development of a low cost technique for sorting household wastes using eddy current separation process, Authors: Merahi A. et. al, Source: International Journal of Environmental Studies, Vol. 73, pp 203-213 (2016) http://dx.doi.org/10.1080/00207233.2015.1135584			
	6.	Induced Eddy Currents in Simple Conductive Geometries Mathematical formalism describes the excitation of electrical eddy currents in a time-varying magnetic field, Authors: Nagel JR, Source: IEEE ANTENNAS AND PROPAGATION MAGAZINE, Vol. 60(1), pp. 81-88 (2018) DOI: 10.1109/MAP.2017.2774206			
	7.	An analytic model for eddy current separation, Authors: Nagel, J.R., Source: Minerals Engineering 127, pp. 277-285 (2018)			
	8.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			

	9.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			
	10	A new approach for the numerical analysis of an eddy current separator to recover non-ferrous metals from wastes, Authors: Merahi A. et. al., Source: International Journal of Environmental Studies Vol. 77(5) (2020) DOI:10.1080/00207233.2020.1723878			
		…….			
IV.	R. Meier-Staude, Z. Schlett, **M. Lungu**, D. Baltateanu: *A new possibility in Eddy-Current separation*, Minerals Engineering Vol. 15, pp. 287-291 (2002)		13	4	**3.25**
	1.	Principle of maximum flow energy, a useful working hypothesis to approach ordering phenomena in fluids Author: Eidenschink R., Source: Molecular Crystals and Liquid Crystals, Vol. 461 (1), pp. 71-81 (2006) http://dx.doi.org/10.1080/15421400600983580			
	2.	An environmental friendly recovery production line of waste toner cartridges, Authors: Ruan Jujun; Li Jia; Xu Zhenming Source: Journal of Hazardous Materials, Vol. 185 (2-3), pp. 696-702 (2011) https://doi.org/10.1016/j.jhazmat.2010.09.074			
	3.	A new model of repulsive force in eddy current separation for recovering waste toner cartridges, Authors: Ruan Jujun; Li Jia; Xu Zhenming Source: Journal of Hazardous Materials, Vol. 192 (1), pp. 307-313 (2011) https://doi.org/10.1016/j.jhazmat.2011.05.025			
	4.	Automatic Extraction of Ferromagnetic Particle from Nonhomogenous Solid-State Mixture, Authors: Ismail, M.F. et. al. Source: IIUM Engineering Journal, Special Issue, Mechanical Engineering, Vol. 12, No. 3, pp. 149-161 (2011)			
	5.	Metal Enrichment of Finely Ground Electronic Waste using Eddy Current Separation. Authors: Subrata Roy, Vidyadhar Ari, Jayanta Konar & Avimanyu Das, Source: Separation Science and Technology, Volume: 47 (12), pp. 1777-1784 (2012) doi.org/10.1080/01496395.2012.658486			
	6.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 242-248 (2013)			
	7.	Research review of scrap metals eddy current separation technology, Authors: Wang, D. et al., Source: Sensors and Transducers 162(1), pp. 177-183 (2014)			
	8.	Environment-friendly technology for recovering nonferrous metals from e-waste: Eddy current separation, Authors: Ruan, J.,Qian, Y.,Xu, Z., Source: Resources, Conservation and Recycling, Vol. 87, pp. 109–116 (2014) https://doi.org/10.1016/j.resconrec.2014.03.017			
	9.	Constructing environment-friendly return road of metals from e-waste: Combination of physical separation technologies, Authors: Ruan, J.,Xu, Z., Source: Renewable and Sustainable Energy Reviews, Vol. 54, pp. 745-760 (2016) http://dx.doi.org/10.1016/j.rser.2015.10.114			
	10.	Recoveries of rare elements Ga, Ge, In and Sn from waste electric and electronic equipment through secondary copper smelting, Authors: Avarmaa, K. et. al. Source: Waste Management 71, pp 400-410 (2018)			
	11.	Calculation of the Electromagnetic Repulsion for Eddy Current Separation About the Scrap Copper, Authors: Xiushui, Ma et. al., Source: Journal of Nanoelectronics and Optoelectronics 13(9), pp. 1427-1435 (2018) doi.org/10.1166/jno.2018.2440			
	12.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			

	13.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			
		.....			
V.	Z. Schlett, **M. Lungu**: *Eddy-current separator with inclined magnetic disc*, Minerals Engineering, Vol. 15 (5), pp.365-367 (2002)		11	2	**5.5**
	1.	A review of electronics demanufacturing processes,Author: Williams, J.A.S. Source: Resources, Conservation and Recycling, Volume: 47 (3), pp. 195-208 (2006) https://doi.org/10.1016/j.resconrec.2005.11.003			
	2.	Metal Enrichment of Finely Ground Electronic Waste using Eddy Current Separation. Authors: Subrata Roy, Vidyadhar Ari, Jayanta Konar & Avimanyu Das, Source: Separation Science and Technology, Volume: 47 (12), pp. 1777-1784 (2012) http://dx.doi.org/10.1080/01496395.2012.658486			
	3.	Environment-friendly technology for recovering nonferrous metals from e-waste: Eddy current separation, Authors: Ruan, J.,Qian, Y.,Xu, Z., Source: Resources, Conservation and Recycling, Vol. 87, pp. 109–116 (2014) https://doi.org/10.1016/j.resconrec.2014.03.017			
	4.	The research of simulation on eddy current separation process based on MATLAB and COMSOL, Authors: Yu FJ et. al., Source: 9TH INTERNATIONAL CONFERENCE ON DIGITAL ENTERPRISE TECHNOLOGY - INTELLIGENT MANUFACTURING IN THE KNOWLEDGE ECONOMY ERA, Book Series: Procedia CIRP, Volume: 56, pp. 520-523 (2016) DOI: 10.1016/j.procir.2016.10.102			
	5.	Constructing environment-friendly return road of metals from e-waste: Combination of physical separation technologies, Authors: Ruan, J.,Xu, Z., Source: Renewable and Sustainable Energy Reviews, Vol. 54, pp. 745-760 (2016) http://dx.doi.org/10.1016/j.rser.2015.10.114			
	6.	Environmental-energy analysis and the importance of design and remanufacturing recycled materials, Authors: Jimenez F et. al., Source: INTERNATIONAL JOURNAL OF INTERACTIVE DESIGN AND MANUFACTURING – IJIDEM, Vol. 10 (3), pp. 241-249 (2016) DOI: 10.1007/s12008-016-0321-8			
	7.	Environment-Friendly Technology of Recovering Full Resources of Waste Capacitors, Authors: Ruan J. et. al., Source: Source: ACS Sustainable Chem. Eng., Vol. 5(1), pp. 287-293 (2017) doi: 10.1021/acssuschemeng.6b01569			
	8.	Calculation of the Electromagnetic Repulsion for Eddy Current Separation About the Scrap Copper, Authors: Xiushui, Ma et. al., Source: Journal of Nanoelectronics and Optoelectronics 13(9), pp. 1427-1435 (2018) doi.org/10.1166/jno.2018.2440			
	9.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			
	10.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			

	11.	Eddy current separation can be used in separation of non-ferrous particles from crushed waste printed circuit boards, Authors: Zhe Huang et. Al., Source: Journal of Cleaner Production 312, 127755 (2021) https://doi.org/10.1016/j.jclepro.2021.127755			
		…….			
VI.	R. Koenlechner, Z. Schlett, **M. Lungu**, C. Caizer: *A new wet Eddy-current separator*, Resources, Conservation and Recycling, Vol. 37 (1), pp. 55-60 (2002)		5	4	**1.25**
	1.	Approaches to Improve Separation Efficiency of Eddy Current Separation for Recovering Aluminum from Waste Toner Cartridges Authors: Ruan Jujun; Xu Zhenming, Source: Environ. Sci. Technol., Vol. 46 (11), pp. 6214–6221 (2012) doi: 10.1021/es3008358			
	2.	Environment-friendly technology for recovering nonferrous metals from e-waste: Eddy current separation, Authors: Ruan, J.,Qian, Y.,Xu, Z., Source: Resources, Conservation and Recycling, Vol. 87, pp. 109–116 (2014) https://doi.org/10.1016/j.resconrec.2014.03.017			
	3.	Design and development of a low cost technique for sorting household wastes using eddy current separation process, Authors: Merahi A. et. al, Source: International Journal of Environmental Studies, Vol. 73, pp 203-213 (2016) http://dx.doi.org/10.1080/00207233.2015.1135584			
	4.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			
		A new approach for the numerical analysis of an eddy current separator to recover non-ferrous metals from wastes, Authors: Merahi A et. al., Source: International Journal of Environmental Studies, Vol. 77(5), pp. 749-766 (2020) doi.org/10.1080/00207233.2020.1723878			
		……			
VII.	**M.Lungu**, P.Rem: *Eddy-Current Separation of Small Nonferrous Particles By a Single Disk Separator With Permanent Magnets*, IEEE Transaction on Magnetics. Vol.39 (4), pp. 2062-2067 (2003)		5	2	**2.5**
	1.	Performance Determination of Novel Design Eddy Current Separator for Recycling of Non-Ferrous Metal Particles, Authors: Ahmet Fenercioglu and Hamit Barutcu, Source: Journal of Magnetics, Vol. 21 (4), pp 635-643 (2016) https://doi.org/10.4283/JMAG.2016.21.4.635			
	2.	Eddy Current Separation of Nonferrous Metals Using a Variable-Frequency Electromagnet, Authors: Dholu N. et. Al., Source: KONA Powder and Particle Journal, pp. 1-7 (2017) http://doi.org/10.14356/kona.2017012			
	3.	Calculation of the Electromagnetic Repulsion for Eddy Current Separation About the Scrap Copper, Authors: Xiushui, Ma et. al., Source: Journal of Nanoelectronics and Optoelectronics 13(9), pp. 1427-1435 (2018) doi.org/10.1166/jno.2018.2440			
	4.	Electrodynamic Concentration of Non-ferrous Metallic Particles in the Moving Gas-powder Stream: Mathematical Modeling and Analysis, Authors: Yuze Huang et. al., Source: International Journal ofMagnetics and Electromagnetism ISSN: 2631-5068, pp. 1-12 (2019) 5:019			
	5.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			
		……			

VIII.	**M.Lungu**: *Electrical separation of plastic materials using the triboelectric effect*, Minerals Engineering, Vol. 17 (1), pp. 69-75 (2004)		80	1	**80**
	1.	Development of Triboelectrostaic Separation Technique for Recycling of Final Waste Plastic, Authors: Jeon, Ho-Seok et. al., Source: Geosystem Engineering, Vol. 9 (1), pp. 21-24 (2006) http://dx.doi.org/10.1080/12269328.2006.10541250			
	2.	PVC removal from mixed plastics by triboelectrostatic separation, Authors: Park Chul-Hyun et. al., Source: Journal of Hazardous Materials, Vol. 144 (1-2), pp. 470-476 (2007) https://doi.org/10.1016/j.jhazmat.2006.10.060			
	3.	Triboelectrostatic separation of covering plastics in chopped waste electric wire, Authors: Park Chul-Hyun et. al., Source: Polymer Engineering & Science, Vol. 47 (12), pp. 1975-1982 (2007) doi : 10.1002/pen.20810			
	4.	Application of electrostatic separation to the recycling of plastic wastes: Separation of PVC, PET, and ABS, Authors: Park Chul-Hyun et. al., Source: Environmental Science & Technology, Vol. 42 (1), pp. 249-255 (2008) doi: 10.1021/es070698h			
	5.	Triboelectric series and charging properties of plastics using the designed vertical-reciprocation charger Authors: Park Chul-Hyun et. al., Source: Journal of Electrostatics, Vol. 66 (11-12), pp. 578-583 (2008) https://doi.org/10.1016/j.elstat.2008.07.001			
	6.	Investigation of Electrostatic Behavior of a Lactose Carrier for Dry Powder Inhalers, Authors: Chow Keat Theng et. al., Source: Pharmaceutical Research, Vol. 25 (12), pp. 2822-2834 (2008) link.springer.com/article/10.1007/s11095-008-9651-y			
	7.	Separation of PVC and Rubber from Covering Plastics in Communication Cable Scrap by Tribo-Charging Authors: Jeon Ho-Seok et. al., Source: Separation Science and Technology, Vol. 44 (1), pp.190-202 (2009) http://dx.doi.org/10.1080/01614940802286040			
	8.	Phase separation of 2D meso-scale Coulombic crystals from meso-scale polarizable "solvent" Authors: Kaufman G. K. et. al., Source: Soft Matter, Vol. 5 (9), pp. 1188-1191 (2009) doi: 10.1039/B813590H			
	9.	Triboelectrostatic Separation for Recycling of Seaweed-Drying Net Frame Plastic Wastes Authors: Park, Chul-Hyun and Jeon, Ho-Seok, Source: Materials Transactions, Vol. 50 (3), pp. 644-649 (2009) doi.org/10.2320/matertrans.MRA2008268			
	10.	Electrostatic charging of dielectrics: New approaches to solve persisting problems, Authors: Gouveia, R.F. et. al., Source: Quimica Nova, Vol. 33 (10), pp. 2103-2107 (2010) dx.doi.org/10.1590/S0100-40422010001000019			
	11.	Squeezing out hydrated protons: Low-frictional-energy triboelectric insulator charging on a microscopic scale, Author: Knorr, N., Source: AIP Advances 1, 022119 (2011) http://dx.doi.org/10.1063/1.3592522			
	12.	Influence of Material Moisture on the Tribocharging Process of Plastic Granules, Authors: Gabriela Buda et. al. Source Particulate Science and Technology, Vol. 31 (2), pp. 162-167 (2012) http://dx.doi.org/10.1080/02726351.2012.675018			
	13.	Triboelectric-generator-driven pulse electrodeposition for micropatterning, Authors: Guang Zhu et. al., Source: Nanoletters, Vol. 12 (9), pp. 4960-4965 (2012) doi: 10.1021/nl302560k			
	14.	Development of Triboelectrostatic Separation Technique for Recovery of Nylon from Radiator of End-of-Life Vehicle, Authors: Baek, Sang-Ho et. al., Source: Journal of the Korean Institute of Resources Recycling, Vol. 22 (1), pp. 29-35			

	(2013)
15.	Toward large-scale energy harvesting by a nanoparticle-enhanced triboelectric nanogenerator, Authors: Guang Zhu et. al., Source: Nanoletters, Vol. 13 (2), pp. 847-853 (2013) doi: 10.1021/nl4001053
16.	Triboelectrostatic separation for granular plastic waste recycling: A review, Authors: Wu, G.,Li, J.,and Xu, Z, Source: Waste Management, Vol. 33 (3), pp. 585-597 (2013) https://doi.org/10.1016/j.wasman.2012.10.014
17.	Influence of material moisture on the tribocharging process of plastic granules, Authors: Buda, G. et. al., Source: Particulate Science and Technology, Vol. 31 (2), pp. 162-167 (2013) http://dx.doi.org/10.1080/02726351.2012.675018
18.	Experimental study of the tribocharging process of plastic granular materials on a vibratory feeder device, Authors: Buda, G. et. al., Source: IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 20 (5), pp. 1489-1496 (2013) doi: https://doi.org/10.1109/TDEI.2013.6633675
19.	Continuous Electric Sorting in the Recycling Process of Plastics (Die Anwendung der Elektrosortierung beim Recycling von Kunststoffen), Authors: Reinsch, E. et. al., Source: Chemie Ingenieur Technik, Vol. 86 (6), pp. 784-796 (2014) doi: 10.1002/cite.201400010
20.	Physical basis of tribocharging and electrostatic separation of plastics, Authors: Zenkiewicz, M. and Zuk, T., Source: Polymery, Vol. 59 (4), pp. 314-323 (2014) http://dx.doi.org/10.14314/polimery.2014.314
21.	Electrochemical cathodic protection powered by triboelectric nanogenerator, Authors: Guo, W. et. al., Source: Advanced Functional Materials, Vol. 24 (42), pp. 6691-6699 (2014) doi: 10.1002/adfm.201401168
22.	Friction, tribochemistry and triboelectricity: Recent progress and perspectives, Authors: Galembeck, F. et. al., Source: RSC Advances, Vol. 4 (109), pp. 64280-64298 (2014) doi: 10.1039/C4RA09604E
23.	Robustness testing of a free-fall triboelectric separation process for plastic waste recovery, Authors: Bendimerad, S. et. al., Source: International Journal of Sustainable Engineering, Vol. 7 (4), pp. 284-292 (2014) http://dx.doi.org/10.1080/19397038.2013.811704
24.	Measurement of liquid flow rate by self-generated electrokinetic potential on the microchannel surface of a solid, Authors: Park, H. and Choa, S.H., Source: Sensors and Actuators, A: Physical, Vol. 208 (1), pp. 88-94 (2014) https://doi.org/10.1016/j.sna.2014.01.002
25.	Flotability and flotation separation of polymer materials modulated by wetting agents, Authors: Wang, H., et. al., Source: Waste Management Vol. 34 (2), pp. 309-315 (2014) https://doi.org/10.1016/j.wasman.2013.11.007
26.	Triboelectric nanogenerators as a new energy technology: From fundamentals, devices, to applications, Authors: Guang Zhu et. al., Source: Nano Energy, Vol. 14. pp. 126-138 (2015) https://doi.org/10.1016/j.nanoen.2014.11.050
27.	Tribo-charging properties of waste plastic granules in process of tribo-electrostatic separation, Authors: Li, J., Wu, G. And Xu, Z., Source: Waste Management Vol. 35 (1), pp. 36-41 (2015) https://doi.org/10.1016/j.wasman.2014.10.001
28.	Separation of aluminum and plastic by metallurgy method for recycling waste pharmaceutical blisters, Authors: Wang, C. and Wang, H., Source: Journal of Cleaner Production, Vol. 102, pp. 378-383 (2015) https://doi.org/10.1016/j.jclepro.2015.04.067
29.	Electrification of particulate entrained fluid flows—Mechanisms, applications, and

		numerical methodology, Authors: Wei W. and Gu Z., Source: Physics Reports, Vol. 600, pp. 1-35 (2015) http://dx.doi.org/10.1016/j.physrep.2015.10.001
	30.	Separation of aluminum and plastic by metallurgy method for recycling waste pharmaceutical blisters, Authors: Wang C. et. al., Source: Journal of Cleaner Production, Vol. 102, pp. 378-383 (2015) http://dx.doi.org/10.1016/j.jclepro.2015.04.067
	31.	Kinetics and leaching behaviors of aluminum from pharmaceutical blisters in sodium hydroxide solution, Authors: Wang C. et. al., Source: Journal of Central South University, Vol. 22 (2), pp. 4545-4550 (2015) DOI: 10.1007/s11771-015-3004-x
	32.	Influence of shape and size of the particles on jigging separation of plastics mixture, Authors: Pita F. and Castilho A., Source: Waste Management, Vol. 48, pp. 89-94 (2016) http://dx.doi.org/10.1016/j.wasman.2015.10.034
	33.	Effect of tribocharger material on the triboelectric characteristics of coal and mineral particles, Authors: Zhang G. et. al., Source: Particulate Science and Technology, pp. 1-6 (2016) http://dx.doi.org/10.1080/02726351.2016.1184729
	34.	Removing inorganics from nonmetal fraction of waste printed circuit boards by triboelectric separation, Authors: Zhang G. et. al., Source: Waste Management, Vol. 49, pp. 230-237 (2016) http://dx.doi.org/10.1016/j.wasman.2015.12.022
	35.	Separation of plastics by froth flotation. The role of size, shape and density of the particles, Authors: Pita F. and Castilho A., Source: Waste Management, Vol. 60, pp. 91-99 (2017) http://dx.doi.org/10.1016/j.wasman.2016.07.041
	36.	Triboelectric separation technology for removing inorganics from non-metallic fraction of waste printed circuit boards: Influence of size fraction and process optimization, Authors: Zhang G. et. al., Source: Waste Management, Vol. 60, pp. 42-49 (2017) http://dx.doi.org/10.1016/j.wasman.2016.08.010
	37.	Improving the efficiency of coal triboelectric separation by chemical conditioning, Authors: Wang H. et. al., Source: Separation Science and Technology, pp. 1-7 (2017) http://dx.doi.org/10.1080/01496395.2017.1280053
	38.	Development of hydrophobicity and selective separation of hazardous chlorinated plastics by mild heat treatment after PAC coating and froth flotation, Authors: Nguyen Thi Thanh Truc et. al., Source: Journal of Hazardous Materials, Vol. 321, pp. 193-202 (2017) http://dx.doi.org/10.1016/j.jhazmat.2016.09.014
	39.	Self-powered triboelectric nano vibration accelerometer based wireless sensor system for railway state health monitoring, Authors: Xuejun Zao. et. al., Source: Nano Energy, Vol. 34, pp 549-555 (2017) https://doi.org/10.1016/j.nanoen.2017.02.036
	40.	Effect of particle size on the tribo-aero-electrostatic separation of plastics, Authors: Thami Zeghloul. et. al., Source: Journal of Electrostatics, Vol. 88, pp 24-28 (2017) https://doi.org/10.1016/j.elstat.2016.12.003
	41.	Triboelectrostatic separation for PP and ABS plastics in end of life passenger vehicles, Authors: Hongshen Zhang and Ming Chen, Source: Journal of Material Cycle and Waste Management, Vol. 19, pp 884-897 (2017) link.springer.com/article/10.1007/s10163-016-0490-3
	42.	Tribo-Electrostatic Separation of Granular Plastics Mixtures from Waste Electric and Electronic Equipment, Authors: Boukhoulda M.F.. et. al., Source: Particulate Science and Technology, 35(5) pp. 621-626 (2017)

		http://dx.doi.org/10.1080/02726351.2017.1347226
	43.	Effect of tribocharger material on the triboelectric characteristics of coal and mineral particles, Authors: Zhang, G. et. al. Source: Particulate Science and Technology 35(5), pp. 583-588 (2017)
	44.	Enhanced output power of a freestanding ball-based triboelectric generator through the electrophorus effect, Authors: Choy, T.H. et. al. Source: Journal of Material Chemistry A, 6(38), pp. 18518-18524 (2018)
	45.	Triboelectric properties of ilmenite and quartz minerals and investigation of triboelectric separation of ilmenite ore, Authors: Yang, X. et. al. Source: International Journal of Mining Science and Technology 28 (2), pp. 223-230 (2018)
	46.	Evaluation of the quality of postconsumer plastics obtained from disassembly-based recycling strategies, Authors: Wagner, F. et. al. Source: Polymer Engineering 58 (4), pp. 485-492 (2018)
	47.	Triboelectric Nanogenerators for Mechanical Energy Harvesting, Authors: Kaur, N., Pal, K. Source: Energy Technology, 6 (6), pp. 958-997 (2018)
	48.	High-performance and cost-effective triboelectric nanogenerators by sandpaper assisted micropatterned polytetrafluoroethylene, Authors: Mule, A.R., Dudem, B., Yu, J.S. Source: Energy Vol. 165, pp. 677-684 (2018)
	49.	Tribo-electrostatic separation of a quaternary granular mixture of plastics, Authors: Radjaa Messafeur et. al., Source: Particulate Science and Technology 37(6), pp. 760-765 (2019) https://doi.org/10.1080/02726351.2018.1445150
	50.	Anisotropy of the triboelectric effects in polymeric slabs, Authors: Teodorescu, HN. Et. al., Source: Tribology International 136, pp. 496-507 (2019) https://doi.org/10.1016/j.triboint.2019.04.014
	51.	Magnetic projection: A novel separation method and its first application on separating mixed plastics, Authors: Zhang, X. et. al., Source: Waste Management 87, pp. 805-813 (2019) https://doi.org/10.1016/j.wasman.2019.03.008
	52.	Sustainable hydrophilization to separate hazardous chlorine PVC from plastic wastes using H_2O_2/ultrasonic irrigation, Authors: Nguyen Thi Thanh Truc and , Source: Waste Management 88, pp.28-38 (2019) https://doi.org/10.1016/j.wasman.2019.03.033
	53.	Experimental study of triboelectric charging of polyethylene powders: Effect of humidity, impact velocity and temperature, Authors: Jantač, S. et. al. Source: Advanced Powder Technology, 30(1), pp. 148-155 (2019) https://doi.org/10.1016/j.apt.2018.10.017
	54.	Shredding as simultaneous size-reduction and tribo-charging operation for improved performances of an electrostatic separation process for granular plastic wastes, Authors: Ahlem Benabderrahmane et. al., Source: Particulate Science and Technology, published online 08 June2019, https://doi.org/10.1080/02726351.2019.1624664
	55.	Analysis of a novel insulating conveyor-belt tribo-electrostatic separator for highly humid granular products, Authors: Benaouda, I et. al., Source: JOURNAL OF ELECTROSTATICS, Vol.100, Article Number: 103357(2019) DOI: 10.1016/j.elstat.2019.103357
	56.	Anisotropy of the triboelectric effects in polymeric slabs, Authors: Teodorescu, HN et. al., Source: TRIBOLOGY INTERNATIONAL, Vol.136, pp. 496-507(2019) DOI: 10.1016/j.triboint.2019.04.014
	57.	Tribo-electrostatic separation of a quaternary granular mixture of plastics, Authors: Messafeur, R et. al., Source: PARTICULATE SCIENCE AND TECHNOLOGY, Vol.37(6) pp. 760-765(2019) DOI: 10.1080/02726351.2018.1445150
	58.	Modeling and Simulation of Nonconductive Particles Trajectories in a Multifunctional Electrostatic Separator, Authors: Maammar, M et. al., Source: IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, Vol 55(5) pp. 5244-

		5252(2019) DOI: 10.1109/TIA.2019.2920805
	59.	Novel method for sustainable and selective separation of PVC and PET by the homogeneous dissociation of H2O2 using ultrasonication, Authors: Truc, NTT et. al., Source: JOURNAL OF MATERIAL CYCLES AND WASTE MANAGEMENT, Vol. 21(5), pp. 1085-1094 (2019) DOI: 10.1007/s10163-019-00861-1
	60.	Novel trends in plastic waste management, Authors: Idumah, CI, Nwuzor, IC, Source: SN APPLIED SCIENCES, Vol. 1(11), Article Number: 1402 (2019) DOI: 10.1007/s42452-019-1468-2
	61.	Harvesting liquid stream energy from unsteady peristaltic flow induced pulsatile Flow-TENG (PF-TENG) using slipping polymeric surface inside elastomeric tubing, Authors: Cheedrala RK et. al., Source: Nano Energy, Vol. 65, Article number: 104417 (2019) DOI: 10.1016/j.nanoen.2019.104017
	62.	Towards a more circular economy for WEEE plastics - Part A: Development of innovative recycling strategies, Authors: Wagner F et. al., Source: Waste Management Vol. 100, pp. 269-277 (2019) DOI: 10.1016/j.wasman.2019.09.026
	63	Dielectric Barrier Discharge Treatment of Granular Plastic Mixtures in View of Their Triboelectrostatic Separation, Authors: Benabderrahmane, Ahlem et. al., Source: IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, Vol. 56 (1) pp. 693-703 (2020) DOI: 10.1109/TIA.2019.2947660
	64.	Natural and Eco-Friendly Materials for Triboelectric Energy Harvesting, Authors: Slabov S et. al., Source; Nano-Micro Letters Vol. 12(1), Article number 42 (2020) DOI: 10.1007/s40820-020-0373-y
	65.	Triboelectric Charging of Granular Polymers Previously Exposed to Dielectric Barrier Discharges in Atmospheric Air, Authors: Benabderrahmane, Ahlem et. al., Source: IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, Vol.56(1), pp. 3061-3067 (2020) DOI: 10.1109/TIA.2020.2976788
	66.	Endurance Test for Evaluating the Performances of a Novel Rotating-Cylinder-Type Triboelectric Charging Device, Authors: Achouri IE et. al., Source: Source: IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, Vol.56(6), pp. 7005-7011 (2020) DOI: 10.1109/TIA.2020.3021059
	67.	Experimental and numerical analysis of a new tribo-electrostatic separator with coaxial cylindrical electrodes for plastic binary granular mixtures, Authors: Fekir DE, Source: Journal of Electrostatics, Vol. 108, Article number: 103523 (2020) DOI: 10.1016/j.elstat.2020.103523
	68.	A Test Chamber Investigation of the Effect of Charging on Aerosol Deposition on Indoor Surfaces, Authors: Din TMHU et. al., Source: AEROSOL AND AIR QUALITY RESEARCH, Vol. 20 (12), pp. 2669-2680 (2020) DOI: 10.4209/aaqr.2020.03.0094
	69.	Recent advancements in thermolysis of plastic solid wastes to liquid fuel, Author: Christopher Igwe Idumah, Source: Journal of Thermal Analysis and Calorimetry 147, pp.3495–3508 (2022) https://doi.org/10.1007/s10973-021-10776-5
	70.	Mixed Triboelectric and Flexoelectric Charge Transfer at the Nanoscale, Authors: Sang-Woo Kim et. Al., Source: Advanced Science 8 (20) 2101793, https://doi.org/10.1002/advs.202101793
	71.	Electrostatic separation of polymer waste by tribocharging system based on friction with PVC, Authors: B. M. Rodrigues,C. Saron, Source: International Journal of Environmental Science and Technology 19, pp.1293–1300 (2022) https://doi.org/10.1007/s13762-021-03229-x
	72.	Theoretical and experimental study on the triboelectric separation of ternary plastics combination using fluidized bed, Authors: Haifeng Wang et. Al., Source: Journal of Material Cycles and Waste Management volume 23, pages2297–2306 (2021) https://doi.org/10.1007/s10163-021-01296-3
	73.	Facile green path to interconnected nano-graphite networks to overtake graphene as conductive fillers, Authors: JinyingZhang et. Al., Source: Carbon 173, pp. 667-675 (2021) https://doi.org/10.1016/j.carbon.2020.11.049
	74.	Investigation of electrical field effect on the fluidization characteristics in a two-

		dimensional fluidized bed, Authors: XuejieBai et. Al., Source: Minerals Engineering 170, 107035 (2021) https://doi.org/10.1016/j.mineng.2021.107035			
	75.	Experimental and numerical analysis of a tribo-electrostatic separation process of micronized plastic particles using rotating disk electrodes, Authors: A. Tilmatine et. Al., Source: International Journal of Environmental Studies (2021) https://doi.org/10.1080/00207233.2021.1974759			
	76.	Influence of Particle Size after Grinding in Electrostatic Separation of Granular Plastic Mixtures, Authors: K. Medles et. Al., Source: International Journal of Electronics and Electrical Engineering Systems 3(4), (2020)			
		…….			
IX.	**M.Lungu**: *Separation of small nonferrous particles using an angular rotary drum eddy-current separator with permanenet magnets*, International Journal of Mineral Processing, Vol. 78 (1), pp. 22-30 (2005)		17	1	**17**
	1.	Froth Flotation for Beneficiation of Printed Circuit Boards Comminution Fines: An Overview, Authors: Ogunniyi, I.O. and Vermaak, M.K.G., Source: Mineral Processing and Extractive Metallurgy Review, Vol. 30 (2), pp. 101-121 (2009) http://dx.doi.org/10.1080/08827500802333123			
	2.	An environmental friendly recovery production line of waste toner cartridges Authors: Ruan, J.,Li, J. and Xu, Z., Source: Journal of Hazardous Materials, Vol. 185 (2-3), pp. 696-702 (2011) https://doi.org/10.1016/j.jhazmat.2010.09.074			
	3.	Environmental friendly automated line for recovering the cabinet of waste refrigerator, Authors: Ruan, J. and Xu, Z., Source: Waste Management, Vol. 31 (11), pp. 2319-2326 (2011) https://doi.org/10.1016/j.wasman.2011.06.004			
	4.	Effects of acoustic hood noise, CFC-11, and particulate matter in a recycling system for waste refrigerator cabinet, Authors: Guo, J. et. al., Source: Environmental Science Pollution Research, Vol. 21 (22), pp. 12701-12708 (2014) doi: https://doi.org/10.1007/s11356-014-3203-2			
	5.	Environment-friendly technology for recovering nonferrous metals from e-waste: Eddy current separation, Authors: Ruan, J.,Qian and Y.,Xu, Z., Source: Resources, Conservation and Recycling, Vol. 87, pp. 109-116 (2014) https://doi.org/10.1016/j.resconrec.2014.03.017			
	6.	Effects of acoustic hood on noise, CFC-11, and particulate matter in a recycling system for waste refrigerator cabinet, Authors: Guo, J. et. al. Source: Environmental Science and Pollution Research, 21 (22), pp. 12701-12708 (2014)			
	7.	Performance determination of novel design eddy current separator for recycling of nonferrous metal particles, Authors: Fenercioglu, A. Source: Journal of Magnetics, Vol. 21(4), pp. 635-643 (2016)			
	8.	Constructing environment-friendly return road of metals from e-waste: Combination of physical separation technologies, Authors: Ruan, J.,Xu, Z., Source: Renewable and Sustainable Energy Reviews, Vol. 54, pp. 745-760 (2016) http://dx.doi.org/10.1016/j.rser.2015.10.114			
	9.	Design and development of a low cost technique for sorting household wastes using eddy current separation process, Authors: Merahi Amir et. al., Source: International Journal of Environmental Studies, Vol. 73 (2), pp. 203-313 (2016) http://dx.doi.org/10.1080/00207233.2015.1135584			
	10.	Hollow Aluminium Particle in Eddy Current Separation of Recovering Waste Toner Cartridges, Authors: Zheng, J., et. al., Source: ACS Sustainable Chem. Eng., Vol. 5(1), pp. 161-167 (2017) DOI: 10.1021/acssuschemeng.6b01168			
	11.	Key factors of eddy current separation for recovering aluminum from crushed e-waste, Authors: Ruan, J., et. al., Source: Waste Management, Vol. 60, pp. 84-90 (2017) http://dx.doi.org/10.1016/j.wasman.2016.08.018			

	12	Eddy Current Separation of Nonferrous Metals Using a Variable Frequency Electromagnet, Authors: Nakul Dholu, et. al., Source: KONA Powder and Particle Journal, Vol. 34, pp 241-247 (2017) http://doi.org/10.14356/kona.2017012.14			
	13	Developing the combined magnetic, electric and air flow (KLME) separator for RMSW processing. Authors: Faitli, J. et. al. Source: Waste Management Vol. 36(9), pp. 779-787 (2018)			
	14.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			
	15.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			
	16.	Combined mechanical process recycling technology for recovering copper and aluminium components of spent lithium-iron phosphate batteries, Authors: Bi HJ et. al., Source: Waste Management & Research, Vol. 37(8), pp. 767-780 (2019) DOI: 10.1177/0734242X19855432			
	17.	Eddy current separation can be used in separation of non-ferrous particles from crushed waste printed circuit boards, Authors: JujunRuan et. Al., Source: Journal of Cleaner Production 312, 127755 (2021) https://doi.org/10.1016/j.jclepro.2021.127755			
X.	**M.Lungu**: *Separation of small metallic nonferrous particles in low concentration from mineral wastes using dielectrophoresis*, International Journal of Mineral Processing, Vol. 78 (4), pp. 215-219 (2006)		12	1	**12**
	1.	Dielectrophoretic-Field Flow Fractionation Analysis of Dielectric, Density, and Deformability Characteristics of Cells and Particles, Authors: Gascoyne Peter R. C., Source: Analytical Chemistry, Vol. 81 (21), pp. 8878-8885 (2009) doi**:** 10.1021/ac901470z			
	2.	Dielectrophoresis: Status of the theory, technology, and applications, Author: Pethig Ronald, Source: Biomicrofluidics, Vol. 4 (2), pp. 022811-1 – 022811-35 (2010) http://dx.doi.org/10.1063/1.3456626			
	3.	Separation and Manipulation of Rare-earth Oxide Particles by Dielectrophoresis, Authors: Chen, H. et al., Source: Chinese Journal of Chemical Engineering, Vol. 18 (6), pp. 1034-1037 (2010) https://doi.org/10.1016/S1004-9541(09)60165-8			
	4.	Manipulation and separation of particles of metal oxides by dielectrophoresis, Authors: Chen, H. et. al., Source: Chemical Research in Chinese Universities, Vol. 26 (4), pp. 645-648 (2010) http://59.72.0.32/hxyj//EN/			
	5.	Computational Fluid Dynamics Modelling of Microfluidic Channel for Dielectrophoretic BioMEMS Application, Authors: Low WS et. al., Source: Scientific World Journal, Article Number: 961301 (2014) DOI: 10.1155/2014/961301			
	6.	Direct current-dielectrophoresis assisted microscale machining of metal by femtosecond pulsed laser, Authors: Park, C.K. and Farson, D.F., Source: Journal of Applied Physics, Vol. 118 (2), 023102 (2015) http://dx.doi.org/10.1063/1.4926504			
	7.	Controlled synthesis and enhanced photoelectro-catalytic activity of a 3D TiO_2nanotube array/TiO_2 nanoparticle heterojunction using a combined dielectrophoresis/sol–gel method, Authors: Ruiyu Bao et. al., Source: Journal of Materials Chemistry C 7, pp. 4981-4987 (2019) doi: 10.1039/C9TC00568D			
	8.	Recent Researches in Electrostatic Separation Technologies for the Recycling of			

		Waste Electric and Electronic Equipment, Authors: Samuila A et. al., Source: TIM 19 PHYSICS CONFERENCE, AIP Conference Proceedings, Vol. 2218, Article Number: 030001 (2020) DOI: 10.1063/5.0001074			
	9.	The Electrical Conductivity of Giniite Fe-5(PO4)(4)(OH)(3)center dot 2H(2)O Materials, Authors: Brindusoiu S et. al., Source: TIM 19 PHYSICS CONFERENCE, AIP Conference Proceedings, Vol. 2218, Article Number: 030017 (2020) DOI: 10.1063/5.0001856			
	10.	A review of dielectrophoretic separation and classification of non-biological particles, Authors: Pesch GR, Du F., Source: Electrophoresis, Vol. 42(1-2) (2020) DOI: 10.1002/elps.202000137			
	11.	Recent researches in electrostatic separation technologies for the recycling of waste electric and electronic equipment, Authors: Adrian Samuila et. Al., Source: AIP Conference Proceedings 2218, 030001 (2020); https://doi.org/10.1063/5.0001074			
	12.	The electrical conductivity of giniite $Fe_5(PO_4)_4(OH)_3 \cdot 2H_2O$ materials, Authors: I. Malaescu et. Al., Source: AIP Conference Proceedings 2218, 030017 (2020); https://doi.org/10.1063/5.0001856			
XI.		**M. Lungu**: *Separation of small nonferrous particles using a two successive steps eddy-current separator with permanent magnets*, International Journal of Mineral Processing, Vol. 93 (2), pp. 172–178, (2009)	8	1	**8**
	1.	Research on the Recycling of Valuable Metals from Waste Printed Circuit Boards by Eddy Current Separation, Authors: He, Jingfeng et. al., Source: ENVIRONMENT MATERIALS AND ENVIRONMENT MANAGEMENT PTS 1-3, Book Series: Advanced Materials Research Volume: 113-116, Pages: 367-+, Part: 1-3 (2010), DOI: 10.4028/www.scientific.net/AMR.113-116.367			
	2.	Increasing the Efficiency of Permanent Magnet Separators by Maintenance of Certain Functional State of the Object of Separation, Authors: Dimova, Tatyana et. al., Source: 2014 18TH INTERNATIONAL SYMPOSIUM ON ELECTRICAL APPARATUS AND TECHNOLOGIES (SIELA), Book Group Author(s):IEEE, Book Series: International Symposium on Electrical Apparatus and Technologies (2014), Proceeding paper			
	3.	Design and development of a low cost technique for sorting household wastes using eddy current separation process, Authors: Merahi Amir et. al., Source: International Journal of Environmental Studies, Vol. 73 (2), pp. 203-313 (2016) http://dx.doi.org/10.1080/00207233.2015.1135584			
	4.	Eddy current separation for recovery of non-ferrous metallic particles: A comprehensive review, Authors: York R. Smith et. al., Source: Minerals Engineering 133, pp. 149-159 (2019) https://doi.org/10.1016/j.mineng.2018.12.025			
	5.	A simultaneous separation of magnetic and conductive particles in a designed permanent magnet drum separator, Authors: Ouili, M. et. al., Source: International Journal of Applied Electromagnetics and Mechanics, Pre-press pp. 1-19 (2019) doi: 10.3233/JAE-180101			
	6.	Simulation of Eddy Current and Repulsive Force of Non-Ferrous Particles in Eddy Current Separator, Authors: Ayad, Ahmed Nour El Islam et. al., Source: PRZEGLAD ELEKTROTECHNICZNY, Vol. 95 (6), pp. 47-50 (2019) DOI: 10.15199/48.2019.06.09			
	7.	Research Of Magnetic Field Distribution In The Working Area Of Disk Separator, Taking Into Account An Influence Of Materials Of Permanent Magnets, Authors: Iryna Shvedchykov et. Al., Source: Physics and Engineering, (1), 87-95, (2020) doi. 10.21303/2461-4262.2020.001106			
	8.	Eddy current separation can be used in separation of non-ferrous particles from crushed waste printed circuit boards, Authors: JujunRuan, Source: Journal of			

		Cleaner Production 312, 127755 (2021) https://doi.org/10.1016/j.jclepro.2021.127755			
XII.	**M. Lungu**, A. Neculae, M. Bunoiu and N. Strambeanu: *Some considerations on the nanoparticles manipulation in fluid media using dielectrophoresis*, Romanian Journal of Physics, 56 (5-6), pp. 749-756 (2011)	2	4	**0.5**
	1.	Dielectrophoretic separation of micron and submicron particles: A review, Authors: Swagatika Dash and Swati Mohanty, Source: Electrophoresis, Vol. 35 (18), pp. 2656-2672 (2014) doi: 10.1002/elps.201400084			
	2.	The Dielectrophoretic Disassociation of Chloride Ions and the Influence on Diamagnetic Anisotropy in Cell Membranes, Author: Marcy Purnell, Source: Discovery Medicine, (2017) http://www.discoverymedicine.com/Marcy-C-Purnell/2016/11/the-dielectrophoretic-disassociation-of-chloride-ions-and-the-influence-on-diamagnetic-anisotropy-in-cell-membranes/			
XIII.	**M. Lungu**, A. Neculae, C.G. Biris, M. Bunoiu: *Numerical analysis of nanoparticles behavior in a microfluidic channel under dielectrophoresis*, Journal of Nanoparticle Research, Vol. 14 (10), art. no. 1154. (2012).	6	4	**1.5**
	1.	Nanoparticles influence droplet formation in a T-shaped microfluidic, Authors: Wang, R. Source: Journal of Nanoparticle Research, Vol. 15(12), (2013)			
	2.	Predicting and eliminating Joule heating constraints in large dielectrophoretic IDE separators, Authors: Wang, Y. et. al., Source: Chemical Engineering Science, Vol. 137 (1), pp. 235-242 (2015) https://doi.org/10.1016/j.ces.2015.06.042			
	3.	Modeling the trajectory of microparticles subjected to dielectrophoresis in a microfluidic device for field flow fractionation, Authors: Mathew, B. et. al., Source: Chemical Engineering Science, Vol. 138, pp. 266-280 (2015) http://dx.doi.org/10.1016/j.ces.2015.07.014			
	4.	CFD design of a microfluidic device for continuous dielectrophoretic separation of charged gold nanoparticles, Authors: Dash, S., Mohanty, S., Source: Journal of the Taiwan Institute of Chemical Engineers, Vol. 58, pp. 39-48 (2016) http://dx.doi.org/10.1016/j.jtice.2015.05.034			
	5.	Numerical simulation of dielectrophoretic particle separation using slanted electrodes, Authors: Kazemi, B. Darabi, J., Source: Physics of Fluids, Vol. 30(10, 102003 (2018))			
	6.	Microfluidic Isolation and Enrichment of Nanoparticles, Authors: Yuliang Xie et. al., Source: ACS Nano Vol. 14(12), pp 16220-16240 (2020) doi.org/10.1021/acsnano.0c06336			
	A. Neculae, R. Giugiulan, M. Bunoiu, and **M. Lungu**: *Effects of fluid flow velocity upon nanoparticle distribution in microfluidic devices under dielectrophoresis*, Romanian Reports in Physics, Vol. 66 (3), pp. 754-764 (2014)	2	4	**0.5**
	1.	CFD design of a microfluidic device for continuous dielectrophoretic separation of charged gold nanoparticles, Authors: Dash, S., Mohanty, S., Source: Journal of the Taiwan Institute of Chemical Engineers, Vol. 58, pp. 39-48 (2016) http://dx.doi.org/10.1016/j.jtice.2015.05.034			
	2.	The first seventy volumes of Romanian reports in physics: A brief survey of the Romanian physics community, Authors: Vlad, V.I. et. al. Source: Romanian Reports in Physics, Vol. 70(1), 101 (2018)			
XIV.	I. Malaescu, M. Lungu, R. Giugiulan and N. Strambeanu: *The Clausius-Mossotti factor in low frequency field of the powders*	1	4	**0.25**

	resulted from waste combustion, Rom. Jour. Phys, Vol. 59, No. 7–8, P. 862–872, 2014.			
	1. Microfluidic device embedding electrodes for dielectrophoretic manipulation of cells-A review, Authors: Yao, J. et. al. Source: Electrophoresis, (2018)			
XV	**M. Lungu**, A. Neculae and A. Lungu: *Positive dielectrophoresis used for selective trapping of nanoparticles from flue gas in a gradient field electrodes device*, Journal of Nanoparticle Research, Vol. 17 (12), 1-14, 2015. DOI: 10.1007/s11051-015-3304-y	2	3	**0.67**
	1. Efficient removal of arsenic from water by dielectrophoresis-assisted adsorption, Authors: Jin, Q.H. et. al., Source: WSTech-Water Supply 19(4), pp. 1066-1072 (2018) https://doi.org/10.2166/ws.2018.155			
	2. Effective removal of Cd^{2+} and Pb^{2+} pollutants from wastewater by dielectrophoresis-assisted adsorption, Authors: Jin, Q., Cui, C. et. al., Source: Frontiers of Environmental Science & Engineering (2019) https://doi.org/10.1007/s11783-019-1092-9			
XVI	**M. Lungu** and A. Neculae: *Eddy current separation of small nonferrous particles using a complementary air-water method*, Separation Science and Technology, Vol. 53(1), 126-135, 2018. DOI: 10.1080/01496395.2017.1380670	2	7	**3.5**
	1. Calculation of the Electromagnetic Repulsion for Eddy Current Separation About the Scrap Copper, Authors: Xiushui, Ma et. Al. , Source: Journal of Nanoelectronics and Optoelectronics, Volume 13, Number 9, September 2018, pp. 1427-1435(9)			
	2. A new model of trajectory in eddy current separation for recovering spent lithium iron phosphate batteries, Authors: Haijun Bi et. Al., Source: Waste Management Volume 100, December 2019, Pages 1-9			
	3. Eddy current separation can be used in separation of non-ferrous particles from crushed waste printed circuit boards, Authors: Zhe Huang et. Al., Source: Journal of Cleaner Production, Volume 312, 20 August 2021, 127755			
	4. Optimization of Halbach magnetic roller for eddy current separation based on the response surface method and multi-objective genetic algorithm, Authors: Cao Bin et. Al., Source: Journal of Cleaner Production, Volume 278, 1 January 2021, 123531, https://doi.org/10.1016/j.jclepro.2020.123531			
	5. Effects of material temperature on the separation efficiency in a rotary-drum type eddy current separator, Authors: Yuan Yi et. Al., Source: Powder Technology Volume 404, May 2022, 117449, https://doi.org/10.1016/j.powtec.2022.117449			
	6. Effects of particle size on the separation efficiency in a rotary-drum eddy current separator, Authors: Cao Bin et. Al., Source: Powder Technology, Volume 410, September 2022, 117870, https://doi.org/10.1016/j.powtec.2022.117870			
	7. Optimal design of a new Halbach array magnetic roller with axial eddy current force, Authors: Yi Yuan et. Al., Source: Minerals Engineering, Volume 204, December 2023, 108406, https://doi.org/10.1016/j.mineng.2023.108406			
XVII	M. Poienar, A. Lungu, P. Sfirloaga, **M. Lungu**, C.V. Mihali, P. Vlazan: *Use of ultrasound-assisted co-precipitation route to obtain CuMnO2 semiconductor nanomaterials*, Chemical Papers, Vol. 73 (6) 1541–1546, 2019, doi.org/10.1007/s11696-019-00707-y	6	5	**0.83**
	1. Fabrication of a UV Photodetector Based on n-TiO2/p-CuMnO2 Heterostructures, Authors: Mircea Nicolaescu et. Al., Source: Coatings, 11(11), 1380; https://doi.org/10.3390/coatings11111380			
	2. Development of a new “n-p” heterojunction based on TiO2 and CuMnO2 synergy materials, Authors: C. Lazau et. Al. , Source: Materials Chemistry and Physics Volume 272, 1 November 2021, 124999, https://doi.org/10.1016/j.matchemphys.2021.124999			

	3.	Solution-synthesized p-type CuMnO2 and n-type ZnO to form the core-shell nanowires for photo and gas sensing, Authors: Cheng-Liang Hsu et. Al., Source: Journal of Alloys and Compounds, Volume 899, 5 April 2022, 163380 https://doi.org/10.1016/j.jallcom.2021.163380			
	4.	Nitrite sensing behaviors of tailored bimetallic oxide CuMnO2 nanostructures, Authors: Hui He et. Al., Source: Journal of Materials Science, Volume 33, pages 1140–1153, (2022)			
	5.	Layered Cu1–zMn1+zO2 Crednerite: Mapping the Phase Stabilization Region via Precise Compositional Control for Optimum Supercapacitor Performance, Authors: Sixian Fu et. Al., Source: Inorg. Chem. 2022, 61, 5, 2576–2586, https://doi.org/10.1021/acs.inorgchem.1c03541			
XVIII	A. Catinean, L. Dascalescu, **M. Lungu**. et. al.: Improving the recovery of copper from electric cable waste derived from automotive industry by corona-electrostatic separation, Particulate Science and Technology, Vol. 39(4), 449-456, 2021, DOI: 10.1080/02726351.2020.1756545		5	10	**2**
	1.	Advances in physiochemical and biotechnological approaches for sustainable metal recovery from e-waste: A critical review, Authors: Aminul Islam et. Al., Source: Journal of Cleaner Production, Volume 323, 10 November 2021, 129015 https://doi.org/10.1016/j.jclepro.2021.129015			
	2.	Is Near-zero Waste Production of Copper and Its Geochemically Scarce Companion Elements Feasible?, Authors: L. Reijnders, Source: Mineral Processing and Extractive Metallurgy Review, Volume 43, 2022, Issue 8 https://doi.org/10.1080/08827508.2021.1986706			
	3.	A critical review of the pre-processing and metals recovery methods from e-wastes, Authors: Rima Kumari and Sukha Ranjan Samadder, Source: Journal of Environmental Management, Volume 320, 15 October 2022, 115887 https://doi.org/10.1016/j.jenvman.2022.115887			
	4.	A review on electrochemical techniques for metal recovery from waste resources, Authors: Samarjeet Singh Siwal et. Al., Source: Current Opinion in Green and Sustainable Chemistry, Volume 39, February 2023, 100722 https://doi.org/10.1016/j.cogsc.2022.100722			
	5.	Identification and classification of recyclable waste using laser-induced breakdown spectroscopy technology, Authors: Lei Yang et. Al., Source: Energy AIP Advances 13, 075024 (2023) https://doi.org/10.1063/5.0149329			
	6.	Metal Recovery from Natural Saline Brines with an Electrochemical Ion Pumping Method Using Hexacyanoferrate Materials as Electrodes, Authors: Sebastian Salazar-Avalos et. Al., Source: Nanomaterials 2023, 13(18), 2557; https://doi.org/10.3390/nano13182557			
	7.	Improving the Efficiency of Refining Copper Scrap Melt Via Steam-Air Oxidation Based on Mathematical Modeling and Experimental Investigations, Authors: A. N. Zadiranov et. Al. , Source: Metallurgist, Volume 67, pages 388–397, (2023)			
	8.	Hydrometallurgical Processing of Cable Scrap and Its Optimization, Authors: A. N. Zadiranov et. Al., Source: Metallurgist, Volume 67, pages 703–713, (2023) https://link.springer.com/article/10.1007/s11015-023-01557-6			
	9.	Electrostatic separation process of metal/plastic granular mixtures using a horizontal rotating disk, Authors: Imane Zennani et. Al., Source: Particulate Science and Technology, Volume 42, 2024 - Issue 1 https://doi.org/10.1080/02726351.2023.2201920			
	10.	Latest trends and challenges in PVC and copper recovery technologies for End-of-Life thin cables, Authors: Harendra Kumar et. Al., Source: Waste Management Volume 174, 15 February 2024, Pages 400-410 https://doi.org/10.1016/j.wasman.2023.12.012			
Punctaj total indicator 3.1:					**C = 155**

3.2. Indicele Hirsch (WoS) h=12

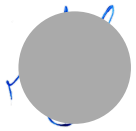
Precizări:

- Indicele Hirsch h se defineşte astfel: un autor are un indice Hirsch h dacă a publicat h articole care au fost citate fiecare de cel puţin h ori. Pentru calcularea indicelui Hirsch se va folosi baza de date ISI Web of Science.

Punctaj total CNATDCU:
T=A+P/2+ I/2+C/20+h/5=9.862+3.3+2.2+7.75+2.4=25.512

Timisoara
04.04.2024

Prof. Univ. Dr. Habil. Mihail LUNGU



Program Managerial

Poziţia: **Director Școala doctorală de Științe Exacte și Științele Naturii**
Domeniile: Biologie, Chimie, Fizică, Geografie, Informatică, Matematică
Universitatea de Vest din Timişoara
Candidat: **Prof. Univ. dr. habil. Mihail LUNGU**

1. Premise

Prezentul **Program Managerial** este elaborat în concordanţă cu Legea învăţământului superior nr. 199/2023, Carta Universităţii de Vest din Timişoara, Regulamentul-cadru privind studiile universitare de doctorat din 08.01.2024 şi bazat pe experienţa candidatului în mandatele anterioare ca Prodecan al Facultatii de Fizică (2012 – 2016), Director al Departamentului de Fizică, Facultatea de Fizică (2016 – 2020) și Decan al Facultății de Fizică (2020 – 2024).

Școala doctorală de Științe Exacte și Științele Naturii este nou înființată și include domeniile Biologie, Chimie, Fizică, Geografie, Informatică, Matematică. Are în prezent un numar de 46 conducători de doctorat, din care 19 sunt externi.

Premisa principală pentru mandatul 2024-2029 va fi asigurarea coeziunii domeniilor participante, precum și dezvoltarea unei școli doctorale puternice, bazată pe exploatarea la maximum a resurselor existente (umane, financiare și materiale) și dezvoltarea acestora.

2. Directorului scolii doctorale [conform Cartei UVT]

(1) Directorul școlii doctorale conduce școala doctorală.
(2) Directorul școlii doctorale este asimilat directorului departamentului.
(3) Directorul școlii doctorale este desemnat de consiliul pentru studiile universitare de doctorat dintre conducătorii de doctorat din cadrul școlii doctorale și este membru de drept în consiliul școlii doctorale.

3. Atribuții [conform Cartei UVT]

a) răspunde de elaborarea statului de funcții al personalului didactic și de cercetare al școlii doctorale și de punerea sa în aplicare;
b) face propuneri de elaborare și implementare a planurilor de învățământ aferente studiilor universitare de doctorat;
c) răspunde de managementul calității și de managementul financiar al resurselor atrase ale școlii doctorale;
d) răspunde de politica de resurse umane a școlii doctorale, de selecția, angajarea, motivarea, evaluarea periodică și formarea personalului didactic și de cercetare al școlii doctorale, precum și de încetarea relațiilor contractuale de muncă ale personalului școlii doctorale, conform legii;
e) răspunde de evaluarea internă periodică a programelor de studii universitare de doctorat gestionate de școala doctorală, conform legii;
f) face propuneri de sancționare disciplinară a personalului didactic și de cercetare al școlii doctorale pe care o coordonează;
g) îndeplinește alte atribuții stabilite de senatul universitar.

4. Analiza SWOT:

- ***Puncte tari***
  - În momentul de față, școala doctorală prezintă stabilitate și predictibilitate;
  - Admiterea riguroasă, transparentă și axată pe candidat;
  - Membrii scolii sunt cadre didactice de predare cu experiență, profesioniști de prestigiu atât din universitate cât și din străinătate;
  - Existenta Institutului de Cercetari Avansate de Mediu;
  - Implementarea de criterii noi de calitate/publicații în finalizarea tezelor de doctorat;
  - Creșterea anuală a numărului de publicații ale doctoranzilor (ISI și BDI);
  - Experienţa acumulată de membrii scolii prin derularea unor proiecte de cercetare, interne şi internaţionale;
  - Aprecierea de care se bucură prestaţia didactică a majorității membrilor departamentului din partea studenţilor;
  - Evoluţia bună a rezulatatelor cercetării:
    - articole în reviste cotate ISI sau BDI, cărţi în edituri nationale şi internaţionale;
    - proiecte interne şi internaţionale;
    - schimburi de experienţă desfăşurate cu universităţi din străinătate (UNITA).

- ***Puncte slabe***
  - Număr mic de studenţi alocati la buget;
  - Număr scăzut de conducători de doctorat la anumite domenii;
  - Puține programe pentru proiecte dedicate doctoranzilor;
  - Doctorate relativ puține în cotutelă;
  - Mobilități puține ale conducătorilor de doctorat și doctoranzilor;
  - Internaționalizarea Școlii Doctorale;
  - Abandonul, nefinalizarea studiilor doctorale;
  - Scăderea numărului de conducatori activi prin pensionare.

- ***Oportunităţi:***
  - Posibilitatea implicării în proiecte interne şi internaţionale de către fiecare membru al departamentului;
  - Politica instituțională a universității de creștere a investițiilor în infrastructura de cercetare (ICAM) reprezintă premizele sporirii numărului de publicații și îndeplinirii criteriilor de abilitare;
  - Creșterea numărului de conducători de doctorat prin îndeplinirea criteriilor de abilitare de către tot mai multe cadre didactice cu rezultate deosebite în cercetare;
  - Facilitarea și încurajarea încheierii de acorduri bilaterale de cercetare și includerea în cadrul celor existente la Departamentul Relații internaționale;
  - Oferte de colaborare în proiecte de cercetare-dezvoltare în străinătate;
  - Menţinerea şi extinderea de parteneriate interne (cu alte universităţi, agenţi economici) şi externe (UNITA).

- ***Ameninţări:***
  - Schimbări legislative;
  - Scăderea numărului de conducători de doctorat în activitate;
  - Scăderea numărului de candidați la admitere;
  - Slaba motivaţie finaciară a cadrelor didactice tinere.

5. Obiective, *direcţii de urmat în următorii 5 ani:*

- Implementarea unor acţiuni concrete pentru creşterea calităţii activităţilor desfăşurate în cadrul Şcolii Doctorale, îmbunătăţirea performanţelor studenţilor doctoranzi şi creşterea atractivităţii către o carieră în cercetare;
- Dezvoltarea de co-tutele prin contracte de parteneriat cu şcoli doctorale partenere din UVT şi din alte Instituţii Organizatoare de Studii Universitare de Doctorat din ţară sau din străinătate;
- Menţinerea rezultatelor ştiinţifice comparabile cu cele la nivel mondial, reflectate prin creşterea vizibilităţii şi recunoaşterea internaţională a cercetării;
- Recrutarea de noi conducători de doctorat cu o bună pregătire în domenii şi creşterea numărului de conducători de doctorat la toate specializările aflate, inclusiv prin atragerea de conducători de doctorat din alte ţari;
- Sprijinirea şi încurajarea studenţilor doctoranzi pentru a participa la mobilităţi naţionale şi internaţionale şi crearea de parteneriate cu grupuri de cercetare cu recunoaştere sau de natură internaţională;
- Identificarea şi încurajarea agenţilor economici interesaţi să sprijine financiar un număr de teme de cercetare pentru studenţi doctoranzi care să se finalizeze cu rezultate reale aplicabile în practică;
- Asigurarea transparenţei funcţionale, prin consultarea permanentă a membrilor şcolii doctorale în luarea deciziilor strategice;
- Implicarea mai puternică a studenţilor doctoranzi în activităţile de cercetare;
- Creşterea vizibilităţii scolii doctorale prin conceperea, editarea şi difuzarea de materiale de prezentare (broşuri, pliante, afişe),
- Realizarea unei pagini de Internet proprii, actualizarea permanentă a acesteia;
- Atragerea candidaţilor şi menţinerea studenţilor doctoranzi;
- Planuri de învățământ actualizate pe domenii și axate pe dobândirea competențelor de cercetare științifică;
- Creşterea numărului de cadre didactice conducători de doctorat;
- Dimensionarea corespunzătoare a gradului de ocupare cu minim 50% titulari – maxim 50% externi la unele domenii;
- Mai multe programe pentru proiecte dedicate doctoranzilor;
- Atragerea de resurse umane tinere în activitatea didactică;

6. Metode de management

- Centrarea preocupărilor pe calitatea activităţilor;
- Transparenţă în stabilirea obiectivelor şi alocarea resurselor;
- Mai multă muncă în echipă şi mai puţină ierarhie;
- Creativitate, flexibilitate şi adaptarea la schimbări;
- Interdisciplinaritate şi combinarea competenţelor profesionale;
- Stimularea iniţiativei şi a responsabilităţii personale;
- Realizarea parteneriatului cu studenţii în luarea unor decizii.

Timisoara 04.04.2024

Prof. Univ. Dr. habil.
Mihail LUNGU

DECLARAȚIE

Subsemnatul **Mihail LUNGU**, Prof. Univ. Dr. habil. la Facultatea de Fizică, Universitatea de Vest din Timişoara, în calitate de candidat la funcţia de Director al Școalii Doctorale de Științe Exacte și Științele Naturii pentru mandatul 2024-2029, declar pe proprie răspundere că nu am avut calitatea de lucrător sau de colaborator al Securităţii.

Timişoara
04. 04. 2024

Semnatura,