

NECULAE Adrian Puiu

Fișa de evaluare CNATDCU

1. Activitatea didactică și profesională

A1 - Cărți în edituri internaționale recunoscute *Web of Science* în calitate de autor

Nr. crt.	Titlul	Autori	Editura, an, link (dacă este cazul)	Punctaj $4/n_i^{ef}$
Punctaj total indicator A ₁				0

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

Se acordă $4/n_i^{ef}$ puncte pentru fiecare carte .

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

A2 - Capitole de cărți în edituri internaționale recunoscute *Web of Science*, în calitate de autor/ Review-uri în reviste cotate ISI

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 13, pp. 245-268: <i>Nanoparticle Characterization Using Nanoparticle Tracking Analysis, Part III: Characterization and Detection Methods for Nanoparticles</i> , Book: Nanoparticles' Promises and Risks; Characterization, Manipulation, and Potential Hazards to Humanity and the Environment	A. Lungu, M. Lungu, <u>A. Neculae</u> , R. Giugiulan	Springer Science+Business Media, ISBN: 978-3-319-11727-0 (Print) 978-3-319-11728-7 (Online), 2014. https://www.springer.com/la/book/9783319117270	0.25
2.	Chapter 14, pp. 271-301: <i>Dielectrophoresis Used for Nanoparticle Manipulation in Microfluidic Devices</i> , Part IV: Methods for Sorting, Separating and Manipulating Nanoparticles, Book: Nanoparticles' Promises and Risks; Characterization, Manipulation, and Potential Hazards to Humanity and the Environment	M. Lungu, M. Bunoiu and <u>A. Neculae</u>	Springer Science+Business Media, ISBN: 978-3-319-11727-0 (Print) 978-3-319-11728-7 (Online), 2014. https://www.springer.com/la/book/9783319117270	0.333
3.	Chapter 15, pp. 355-381 - The micro and nanoinvestigation and control of physical processes using optical fiber sensors and numerical simulations, a mathematical approach. Book: "Micro- and Nanophotonic Technologies"	<u>A. Neculae</u> , D. Curticapean	Wiley-VCH Verlag, Weinheim, Germany, ISBN: 978-3-527-34037-8 (2017) https://www.wiley.com/en-ro/Micro+and+Nanophotoni	0.5

	Editors: P. Meyrueis, K. Sakoda, M. Van de Voorde,		c+Technologies-p-9783527340378	
Punctaj total indicator A2				1.083

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.

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

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; Characterization, Manipulation, and Potential Hazards to Humanity and the Environment	Lungu M, <u>Neculae A.</u> , Bunoiu M. and Biris C.	Springer Science+Business Media, ISBN: 978-3-319-11727-0 (Print) 978-3-319-11728-7 (Online), 2014. https://www.springer.com/la/book/9783319117270	0.125
Punctaj total indicator A3				0.125

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.

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

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.	Îndrumător pentru lucrări de laborator de electricitate, magnetism, electrotehnică. Măsurări, Modelare, Simulare, Control. (254 pag.)	M. Balint, <u>A. Neculae</u> , O. Craiu	Tipografia Universității de Vest din Timișoara, 1996	0.166
2.	Studiu privind procesele de transport de căldură, masă și impuls, respectiv de separare a fazelor și fenomene interfaciale specifice procesării materialelor cristaline, amorfe și compozite în condiții de microgravitație; (164 pag.)	A. M. Balint, <u>A. Neculae</u> , D. Bălțean, M. Mihailovici, Șt. Balint	Univ. de Vest din Timișoara, Monografia de Fizică 14, Editura MIRTON Timișoara, ISBN 1453-7710, 1998	0.1
3.	Modelarea fenomenelor de transport (74 pag.)	A.M. Balint, D. Bălțean, <u>A. Neculae</u> , Șt. Balint	Editura MIRTON Timișoara, ISBN 973-578-715-6, 1998	0.125

4.	Îndrumător pentru lucrări de laborator de electricitate și electromagnetism – Măsurări, Modelare, Simulare, Control (250 pag.)	A. M. Balint, <u>A. Neculae</u>	Editura MIRTON Timișoara , ISBN 973-578-743-1, 1999	0.25
5.	Modelarea fenomenelor electrice și magnetice. Îndrumător pentru lucrări de laborator (76 pag.)	A. M. Balint, <u>A. Neculae</u>	Editura MIRTON Timișoara , ISBN 973-578-742-3, 1999	0.25
6.	Fizica solului (60 pag.)	A.M. Balint, D. Bălțean, <u>A. Neculae</u> , Șt. Balint	Editura MIRTON Timișoara , ISBN 973-578-744-X, 1999	0.125
7.	Măsurarea și estimarea radiației solare, (170 pag.)	M. Paulescu, <u>A. Neculae</u> , E. Tulcan Paulescu	Editura Universității de Vest, Timișoara, ISBN (13) 978-973-125-189-9, 2008	0.166
8.	Fizica Mediului I; Lucrări de laborator, (56 pag.)	N. Ștefu, <u>A. Neculae</u> , A. Balint	Editura Universității de Vest, Timișoara, ISBN 978-973-125-283-4, 2010	0.166
9.	Elemente de algebra liniară (124 pag.)	<u>A. Neculae</u>	Editura Eurobit, Timișoara, 2019 ISBN 978-973-132-571-2	0.5
Punctaj total indicator A4				1.848

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

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

A5 - Capitle 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. 3: Tipuri convenționale de celule solare (pag. 55-79) capitol în cartea “Celule solare nanostructurate”, Editor: M. Paulescu (204 pag.)	<u>A. Neculae</u>	Editura Universității de Vest, Timișoara, ISBN 978-973-125-110-3, 2007	0.2
2.	Cap. 6: Celule solare cu colorant senzitiv (pag. 133-164) capitol în cartea “Celule solare nanostructurate”, Editor: M. Paulescu (204 pag.)	M. Paulescu, <u>A. Neculae</u> , P. Gravila	Editura Universității de Vest, Timișoara, ISBN 978-973-125-110-3, 2007	0.066
3.	Cap. 1: Simularea funcționării celulelor solare cu joncțiune p-n sau p-i-n (pag.1-10) capitol în cartea:” Modelarea numerică a celulelor fotovoltaice nanostructurate”, Autori: M. Paulescu, <u>A. Neculae</u> , E. Tulcan Paulescu, D. Comanescu (168 pag.)	<u>A. Neculae</u>	Editura Universității de Vest, Timișoara, ISBN 978-973-125-174-5, 2008	0.2
4.	Cap. 2: Modelarea și simularea fenomenelor de transport într-o celulă solară cu colorant senzitiv (pag.11-28) capitol în cartea:” Modelarea numerică a celulelor fotovoltaice nanostructurate”, Autori: M. Paulescu, <u>A. Neculae</u> , E. Tulcan Paulescu, D. Comanescu (168 pag.)	<u>A. Neculae</u>	Editura Universității de Vest, Timișoara, ISBN 978-973-125-174-5, 2008	0.2

5.	George Emil Palade – a pioneer of cell biology (pages 88-96), chapter in the book "Inquiry Based Science Education (IBSE) in the primary school", editors S. Jokic, D. Milicic, (112 pag.)	T. Nicolici-Schultz, <u>A. Neculae</u>	Printing office of Vinca Institute of Nuclear Sciences, University of Belgrade, ISBN 978-86-7306-106-1, 2012	0.1
Punctaj total indicator A5				0.766

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

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

Nr. crt.	Titlul	Autori	Revista, editura, an, link (dacă este cazul)	Punctaj $0.2 / n_i^{ef}$
1.	Analysis of the convective-diffusive transport equation of the dopant in the neighbourhood of the growth interface in the context of Bridgman-Stockbarger crystal growth configuration;	St. Balint, A.M. Balint, D.G. Baltean, <u>A. Neculae</u>	Second International Conference on Nonlinear Problems in Aviation and Aerospace, S. Sivasundaram (Ed.), European Conference Publications, Cambridge, 1999, Vol.1, p.63-72, ISBN 0-95226643-1-3,	0.05
2.	The influence of the precristallization zone on the dopant field in microgravity;	A.M. Balint, D. Băltean, M. Mihailovici, <u>A. Neculae</u> , Șt. Balint	SIOEL '99: SIXTH SYMPOSIUM ON OPTOELECTRONICS Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE) Volume: 4068 Pages: 33-44, 2000	0.04
3.	The influence of the solid inclusions on the heat transport in the precristallization zone;	A.M. Balint, M.M. Mihailovici, D.G. Baltean, <u>A. Neculae</u> , St. Balint	Advanced Computational Methods in Heat Transfer VI, Ed. B. Sunden & C.A. Brebbia, WIT Press, Southampton, Boston, p.43-52, 2000	0.04
4.	On the solute concentration field in the neighbourhood of the seed in a hydrothermal crystal growth system;	<u>A. Neculae</u> , A.M. Balint, D.G. Băltean, St. Balint	The Third International Conference on Non-Linear Problems in Aviation and Aerospace, May 10-12, 2000, Daytona-Beach, Florida, USA, Ed. S. Sivasundaram, European Conference Publications, Cambridge, 2002, Vol.1-2, p.513-520	0.05
5.	Mass transport by diffusion and convection through periodic porous media;	D. Băltean, A.M. Balint, Th. Levy, <u>A. Neculae</u> , St. Balint	The Third International Conference on Non-Linear Problems in Aviation and Aerospace, May 10-12, 2000, Daytona-Beach, Florida, USA, Ed. S. Sivasundaram, European Conference Publications, Cambridge, 2002, Vol.1-2, p.63-70	0.04
6.	Temperature measurement using optical fibre with applications to automobiles considering a high accurate numerical solution for the conductive heat transport in a circular cylinder;	D. Curticapean and <u>A. Neculae</u>	Proceedings of SPIE, Vol. 7003, 70032K-1, 2008, ISBN 978-0-8194-7203-8, 12 pagini	0.1
7.	Modeling and numerical simulation of the transport processes inside DSSC using a monodomain approach;	<u>A. Neculae</u> , M. Paulescu and D. Curticapean	Proceedings of SPIE, Vol. 7002, 70020Y-1, 2008, ISBN 978-0-8194-7203-8, 8 pagini	0.066

8.	A simple but accurate multiband solar cells model;	M. Paulescu, E. Tulcan-Paulescu, <u>A. Neculae</u> , and P. Gravila	Proceedings of SPIE, Vol. 7002, 70020T-1, 2008, ISBN 978-0-8194-7203-8, 8 pagini	0.05
9.	Some consideration on the dynamics of nanometric suspensions in fluid media;	M. Lungu, <u>A. Neculae</u> , M. Bunoiu	American Institute of Physics Conference Proceedings 1131, Proceedings of the physics conference TIM-08, Timisoara, ROMANIA, November 28-29, 2008, p.164-168, 2009, ISBN 978-0-7354-0668-1	0.066
10.	Numerical study on radiative heat transfer and boundary control of glass fibers cooling process;	<u>A. Neculae</u> , D. Curticean	American Institute of Physics Conference Proceedings 1262, Proceedings of the physics conference TIM-09, Timisoara, ROMANIA, November 27-28, 2009, p.155-160, 2010, ISBN 978-0-7354-0810-4	0.1
11.	Numerical simulation of the bioparticle manipulation process using dielectrophoresis;	<u>A. Neculae</u> , M. Bunoiu, M. Lungu	American Institute of Physics Conference Proceedings 1262, Proceedings of the physics conference TIM-09, Timisoara, ROMANIA, November 27-28, 2009, p.144-149, 2010, ISBN 978-0-7354-0810-4	0.066
12.	Numerical study of heat transfer in buildings for different environmental conditions;	<u>A. Neculae</u> , S. Arjoca, D. Vizman	American Institute of Physics Conference Proceedings 1387, Proceedings of the physics conference TIM-10, Timisoara, ROMANIA, November 25-27, 2010, p.276-281, 2011, ISBN 978-0-7354-0951-4	0.066
13.	Numerical study regarding the influence of electrodes' geometry on the dielectrophoretic forces;	<u>A. Neculae</u> , M. Lungu, T. Nicolici-Schultz, M. Bunoiu	American Institute of Physics Conference Proceedings 1387, Proceedings of the physics conference TIM-10, Timisoara, ROMANIA, November 25-27, 2010, p.270-275, 2011, ISBN 978-0-7354-0951-4	0.05
14.	Electrohydrodynamic modeling for manipulation of micro/nano particles in microfluidic systems;	<u>A. Neculae</u> , M. Lungu, M. Bunoiu, R. Giugiulan	American Institute of Physics Conference Proceedings 1472, Proceedings of the physics conference TIM-11, Timisoara, ROMANIA, November 24-27, 2011, p.155-161, 2012, ISBN 978-0-7354-1079-4	0.05
15.	Numerical analysis of the diffusive mass transport in brain tissues with applications to optical sensors;	<u>A. Neculae</u> , A. Otte, D. Curticean	Proceedings of SPIE, Book Editor(s): Gannot, I, Volume: 8576, Article Number: 857605, DOI: 10.1117/12.2004436 Published: 2013, ISBN: 978-0-8194-9345-3 http://spie.org/Publications/Proceedings/Volume/8576 ; 8 pagini	0.066
16.	Submicron particle trapping using traveling wave dielectrophoresis;	M. Lungu, R. Giugiulan, M. Bunoiu, N. Strambeanu and <u>A. Neculae</u>	American Institute of Physics Conference Proceedings 1564, Proceedings of the physics conference TIM-12, Timisoara, ROMANIA,	0.04

			November 27-30, 2012, p.111-116, 2013, ISBN 978-0-7354-1192-0 http://dx.doi.org/10.1063/1.4832804	
17.	Numerical simulation of bioparticle separation by Dielectrophoretic Field-Flow-Fractionation (DEP-FFF);	A. Marchis, <u>A. Neculae</u>	American Institute of Physics Conference Proceedings 1634, Proceedings of the physics conference TIM-13, Timisoara, ROMANIA, November 21-24, 2013, p.161-167, Melville, New York, 2014, ISBN 978-0-7354-1273-6	0.1
18.	Study of a 3D DEP-based microfluidic system for selective nanoparticle manipulation,	M. Lungu, S. Balasiu, M. O. Bunoiu and <u>A. Neculae</u>	American Institute of Physics Conference Proceedings 1634, Proceedings of the physics conference TIM-13, Timisoara, ROMANIA, November 21-24, 2013, p.89-94, Melville, New York, 2014, ISBN 978-0-7354-1273-6	0.05
19.	Nanoparticles Trapping from Flue Gas Using Dielectrophoresis,	<u>Neculae, A</u> ; Strambeanu, N; Lungu, A; Bunoiu, M; Lungu, M	TIM14 PHYSICS CONFERENCE: PHYSICS WITHOUT FRONTIERS Book Series: AIP Conference Proceedings Volume: 1694 Article Number: UNSP 040004 Published: 2015	0.04
20.	Recovery of Nanoparticles from Flue Gas using Dielectrophoresis,	<u>Neculae, A</u> ; Lungu, A; Strambeanu, N; Lungu, M.	Proceedings of the 24th International Mining Congress and Exhibition of Turkey, IMCET 2015 Pages: 1382-1388 Published: 2015	0.05
21.	Analysis of Airborne Particulate Matter Pollution in Timisoara City Urban Area and Correlations Between Measurements and Meteorological Data,	Lungu, M; Lungu, A; Stefu, N; <u>Neculae, A</u> ; Strambeanu, N.	AIP Conference Proceedings Volume: 1796 Article Number: UNSP 040011, Published: 2017	0.04
22.	Study on nanoparticles flow reduction tests to HWI plants using numerical simulations,	Lungu, M; <u>Neculae, A</u> ; Lungu, A; Strambeanu, N; Arghiriade, D; Demetrovici, L.	20TH INTERNATIONAL SYMPOSIUM - THE ENVIRONMENT AND THE INDUSTRY (SIMI 2017) 99-111, 2017	0.036
Punctaj total indicator A6				1.256

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 .

A7 - Brevete de invenție internaționale acordate

Nr. crt.	Titlul	Autori	Autoritatea care a acordat brevetul link (dacă este cazul)	Punctaj $3/n_i^{ef}$
Punctaj total indicator A7				0

Se acordă $3/n_i^{ef}$ puncte pentru fiecare item.

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

A8 - Brevete de invenție naționale acordate

Nr. crt.	Titlul	Autori	Autoritatea care a acordat brevetul link (dacă este cazul)	Punctaj $0.5/n_i^{ef}$
Punctaj total indicator A8				0

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.

A9 - Director/ responsabil/ coordonator pentru programe de studii, programe de formare continuă, proiecte educaționale și proiecte de infrastructură (proiectele de cercetare se exclud)

Nr. crt.	Titlul proiectului sau programului	Calitatea (director sau responsabil)	Autoritatea contractantă, instituția, link (după cum este cazul)	Punctaj 0.5 pe item
Punctaj total indicator A9				0

Documente justificative: Copie în format hard sau în format electronic a documentelor de contractare sau link pe pagina autorității contractante sau a instituției unde s-a desfășurat programul.

A10 – Director /responsabil pentru proiecte de cercetare câștigate prin competiție națională sau internațională; proiectele de la punctul A9 se exclud).

Nr. crt.	Titlul proiectului	Calitatea (director sau responsabil)	Autoritatea contractantă, link (dacă este cazul)	Punctaj $V/100.000$
Punctaj total indicator A10				0

Precizări:

- n_i^{ef} reprezintă numărul efectiv de autori ai itemului i și ia următoarele valori:

n_i dacă $n_i \leq 5$, $(n_i + 5)/2$ dacă $5 < n_i \leq 15$, $(n_i + 15)/3$ dacă $15 < n_i \leq 75$ și $(n_i + 45)/4$ dacă $n_i > 75$, unde n_i reprezintă numărul de autori ai articolului i . În cazul publicațiilor HEPP (High Energy Particle Physics) cu număr mare de autori, dacă articolul are la bază o notă internă a experimentului la care candidatul este coautor, atunci n_i^{ef} poate fi dat de numărul de autori din nota internă.

- Lucrările de tip "Article. Proceedings paper" pot fi considerate la activitatea de cercetare sau la cea didactică și profesională, o singură dată, la alegerea candidatului.

Punctaj total obținut pentru activitatea didactică și profesională:

$$A = \sum_{i=1}^{10} A_i = \mathbf{5.078}$$

Conferențiar univ : $A \geq 1$

Abilitare, Prof. : $A > 2$

2. Activitatea de cercetare

2.1 – Articole științifice originale, în extenso, ca autor

Nr. crt.	Referința bibliografică (Autori, Titlul, Revista, Vol., anul, pag. încep. – pag.sf.)	AIS_i	n_i	n_i^{ef}	AIS_i / n_i^{ef}
1.	A.M. Balint, D.G. Bălțean, Th. Levy, M. Mihailovici, <u>A. Neculae</u> , Șt. Balint: The dopant fields in “uniform-diffusion-layer”, “global-thermal-convection” and “precrystallization-zone” models; Materials Science in Semiconductor Processing, 3, p.115-121, 2000	0.34	6	5.5	0.0618
2.	<u>A. Neculae</u> , B Goyeau, M. Quintard, D. Gobin: Passive dispersion in dendritic structures; Materials Science & Engineering A, Vol. 323/1-2, p. 368-377, 2002.	0.9	4	4	0.225
3.	P. Bousquet-Melou, <u>A. Neculae</u> , B. Goyeau, M. Quintard: Averaged solute transport during solidification of a binary mixture: active dispersion in dendritic structures; Metallurgical and Materials Transactions B, Vol. 33B, p.365-376, 2002.	0.6	4	4	0.15
4.	D. Gobin, B. Goyeau, <u>A. Neculae</u> : Convective heat and solute transfer in partially porous cavities; Int. J. Heat and Mass Transfer, Vol 48/10, p. 1898-1908, 2005.	0.9	3	3	0.3
5.	<u>A. Neculae</u> , A.M. Balint: Axial segregation in unsteady diffusion-dominated solidification of a binary alloy in a finite cylindrical ampoule, International Journal of Modern Physics B, Vol 20, No.18, p. 2551-2560, 2006.	0.2	2	2	0.1
6.	<u>A. Neculae</u> and M. Paulescu: Numerical simulation for the current density of p-n junction like-type solar cells; Journal of Optoelectronics and Advanced Materials, Vol. 10, No.9, p.2438-2440, 2008.	0.113	2	2	0.0565
7.	M. Paulescu, E. Tulcan-Paulescu, <u>A. Neculae</u> , P. Gravila: Internal Reflection Influence on the Multiple Quantum Well Solar Cell Efficiency; Journal of Optoelectronics and Advanced Materials, Vol. 10, No.9, p.2441-2444, 2008.	0.113	4	4	0.0282
8.	M. Paulescu, N. Stefu, E. Tulcan-Paulescu, D. Calinoiu, <u>A. Neculae</u> , P. Gravila: UV solar irradiance from broadband radiation and other meteorological data; Atmospheric Research, 96, p.141-148, 2010.	0.642	6	5.5	0.1167
9.	M. Lungu, <u>A. Neculae</u> , M. Bunoiu: Some considerations on the dielectrophoretic manipulation of nanoparticles in fluid media, Journal of Optoelectronic and Advanced Materials, Vol. 12 ISS 12, p. 2423-2426, 2010.	0.113	3	3	0.0376
10.	M. Lungu, <u>A. Neculae</u> , M. Bunoiu, N. Strambeanu: Some considerations on the nanoparticles manipulation in fluid media using dielectrophoresis; Romanian Journal of Physics, Vol. 56 (5-6), p. 749-756, 2011.	0.09	4	4	0.0225
11.	<u>A. Neculae</u> , C. G. Biris, M. Bunoiu, M. Lungu: Numerical analysis of nanoparticle behavior in a microfluidic channel under dielectrophoresis; Journal of Nanoparticle Research. Vol. 14, p. 1154-1165, 2012.	0.676	4	4	0.169
12.	D. Curticapean, <u>A. Neculae</u> : Radiative heat transfer in optical fibers with applications to temperature measurement and controlled splicing processes considering the SPI approximation; FiO/LS - Frontiers in Optics 2012/ Laser Science XXVIII, Rochester, NY, USA, October 14-18, 2012; Code 102355 (2 pages)	0	2	2	0
13.	A. Otte, A. Neculae, and D. S. Curticapean, "Near-Infrared Spectroscopy for Real-Time Brain Perfusion Diagnostics in	0	3	3	0

	Patients with Late Whiplash Syndrome," in Frontiers in Optics 2013, P. Delyett, Jr. and D. Gauthier, eds., OSA Technical Digest (online) (Optical Society of America, 2013), paper JW3A.25. (2 pages) http://www.opticsinfobase.org/abstract.cfm?URI=LS-2013-JW3A.25				
14.	<u>A. Neculae</u> , R. Giugiulan, M. Bunoiu, M. Lungu: Effects of fluid flow velocity upon nanoparticle distribution in microfluidic devices under dielectrophoresis; Romanian Reports in Physics, Vol. 66, No.3, p. 754-764, 2014.	0.21	4	4	0.0525
15.	M. Lungu, <u>A. Neculae</u> 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):491 1-14, 2015, DOI: 10.1007/s11051-015-3304-y	0.529	3	3	0.1763
16.	<u>A. Neculae</u> , M. Bunoiu, A. Lungu and M. Lungu: Filtration of flue gas by retaining of nanoparticles in microfluidic devices using dielectrophoresis, Romanian Reports in Physics, Vol. 68, No. 3, p. 1085-1096, 2016	0.242	4	4	0.0605
17.	<u>A. Neculae</u> , 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, p. 957-969, 2016	0.243	4	4	0.0607
18.	M. Lungu, <u>A. Neculae</u> : Eddy current separation of small nonferrous particles using a complementary air-water method, Separation Science and Technology Vol. 53 (1), 126-135, 2018	0.236	2	2	0.118
19.	A.M. Balint, S. Balint, <u>A. Neculae</u> : On the objectivity of mathematical description of ion transport processes using general temporal Caputo and Riemann-Liouville fractional partial derivatives, Chaos, Solitons and Fractals 156 (2022) 111802	1.106 (2021)	3	3	0.3686
Punctaj total indicator 2.1					I = 2.1039

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- n_i^{ef} reprezintă numărul efectiv de autori ai itemului i și ia următoarele valori:

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

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Nr.	Referința bibliografică (Autori, Titlul, Revista, Vol., anul, pag.inceput-pag.sfârșit)	AIS_i
1.	<u>A. Neculae</u> , B Goyeau, M. Quintard, D. Gobin: Passive dispersion in dendritic structures; Materials Science & Engineering A, Vol. 323/1-2, p. 368-377, 2002.	0.9
2.	<u>A. Neculae</u> , A.M. Balint: Axial segregation in unsteady diffusion-dominated solidification of a binary alloy in a finite cylindrical ampoule, International Journal of Modern Physics B, Vol 20, No.18, p. 2551-2560, 2006.	0.2
3.	<u>A. Neculae</u> and M. Paulescu: Numerical simulation for the current density of p-n junction like-type solar cells; Journal of Optoelectronics and Advanced Materials, Vol. 10, No.9, p.2438-2440, 2008.	0.113
4.	<u>A. Neculae</u> , C. G. Biris, M. Bunoïu, M. Lungu: Numerical analysis of nanoparticle behavior in a microfluidic channel under dielectrophoresis; J. Nanopart Res. Vol. 14, p. 1154-1165, 2012.	0.676
5.	<u>A. Neculae</u> , R. Giugiulan, M. Bunoïu, M. Lungu: Effects of fluid flow velocity upon nanoparticle distribution in microfluidic devices under dielectrophoresis; Romanian Reports in Physics, Vol. 66, No.3, p. 754-764, 2014.	0.21
6.	<u>A. Neculae</u> , M. Bunoïu, A. Lungu and M. Lungu: Filtration of flue gas by retaining of nanoparticles in microfluidic devices using dielectrophoresis, Romanian Reports in Physics, Vol. 68, No. 3, p. 1085-1096, 2016	0.242
7.	<u>A. Neculae</u> , M. Bunoïu, A. Lungu and M. Lungu: Filtration of flue gas in microfluidic devices using dielectrophoresis, Romanian Journal of Physics, Vol. 61, No.5-6, p. 957-969, 2016	0.243
8.	A.M. Balint, S. Balint, <u>A. Neculae</u> : On the objectivity of mathematical description of ion transport processes using general temporal Caputo and Riemann-Liouville fractional partial derivatives, Chaos, Solitons and Fractals 156 (2022) 111802	1.106 (2021)
Punctaj total indicator 2.2		P = 3.69

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P = 3.69

CSII, conferențiar universitar: I ≥ 2, P ≥ 2

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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 citările 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.-inceput -pag.-sfârșit)	C_i al publ. citate	n_i^{ef} al publ. Citate	Punctaj $\frac{C_i}{n_i^{ef}}$
I.		St. Balint, A.M. Balint, D.G. Baltean, <u>A. Neculae</u> : Analysis of the convective-diffusive transport equation of the dopant in the neighborhood of the growth interface in the context of Bridgman-Stockbarger crystal growth configuration; in Second International Conference on Nonlinear Problems in Aviation and Aerospace, S. Sivasundaram (Ed.), European Conference Publications, Cambridge, 1999, Vol.1, p.63-72, ISBN 0-95226643-1-3	4	4	0
		o autocitare			
II.		A.M. Balint, D. Bălțean, M. Mihailovici, <u>A. Neculae</u> , Șt. Balint: The influence of the precristallization zone on the dopant field in microgravity; SIOEL '99: SIXTH SYMPOSIUM ON OPTOELECTRONICS Book Series: PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE) Volume: 4068 Pages: 33-44, 2000	5	5	0
		-			
III.		A.M. Balint, M.M. Mihailovici, D.G. Baltean, <u>A. Neculae</u> , Șt. Balint: The influence of the solid inclusions on the heat transport in the precristallization zone; in Advanced Computational Methods in Heat Transfer VI, Ed. B. Sunden & C.A. Brebbia, WIT Press, Southampton, Boston, Computational Studies 3, p.43-52, 2000	5	5	0.4
	1.	Balint, AM; Mihailovici, MM; (...); Balint, S A modified Chang-Brown model for the determination of the dopant distribution in a Bridgman-Stockbarger semiconductor crystal growth system 3rd International Workshop on Modeling in Crystal Growth Aug 2001 JOURNAL OF CRYSTAL GROWTH 230 (1-2) , pp.195-201			
	2.	Mihailovici, MM; Balint, AM and Balint, S The dopant distribution computed in the modified Chang-Brown model using quasi-steady state approximation Spring Meeting of the European-Materials-Research-Society May 2002 COMPUTATIONAL MATERIALS SCIENCE 24 (1-2) , pp.262-267			
IV.		A.M. Balint, D.G. Bălțean, Th. Levy, M. Mihailovici, <u>A. Neculae</u> , Șt. Balint: The dopant fields in “uniform-diffusion-layer”, “global-thermal-convection” and “precristallization-zone” models; Materials Science in Semiconductor Processing, 3, p.115-121, 2000	6	5.5	0.3636
	1.	Balint A.M., Mihailovici M., Baltean D.G., Balint S., Interface structure in the growth of semiconductor crystals using the Bridgman-Stockbarger method Thin Solid Films, 380 (1-2), p. 108-110, 2000.			
	2.	Mihailovici, M.M., Balint, A.M., Balint, S. The axial and radial segregation due to the thermo-convection, the decrease of the melt in the ampoule and the effect of the precristallization-zone in the semiconductor crystals grown in a Bridgman-Stockbarger system in a low gravity environment Journal of Crystal Growth, 237-239 (1-4 III), pp. 1752-1756, 2002			
V.		<u>A. Neculae</u> , A.M. Balint, D.G. Bălțean, Șt. Balint: On the solute concentration field in the neighborhood of the seed in a hydrothermal crystal growth system; The Third International Conference on Non-Linear Problems in Aviation and Aerospace, May 10-12, 2000, Daytona-Beach, Florida, USA, Ed. S. Sivasundaram, European Conference Publications, Cambridge, 2002, Vol.1-2, p.513-520	4	4	0
		-			

VI.	D. Bălțean, A.M. Balint, Th. Levy, <u>A. Neculae</u> , S. Balint: Mass transport by diffusion and convection through periodic porous media; The Third International Conference on Non-Linear Problems in Aviation and Aerospace, May 10-12 2000, Daytona-Beach, Florida, USA, Ed. S. Sivasundaram, European Conference Publications, Cambridge, 2002, Vol.1-2, p.63-70	5	5	0
	-			
VII.	<u>A. Neculae</u> , B Goyeau, M. Quintard, D. Gobin: Passive dispersion in dendritic structures; Materials Science & Engineering A, Vol. 323/1-2, p. 368-377, 2002	4	4	1.50
	1. Goyeau, B. Bousquet-Melou, P. Gobin, D. Quintard, M.: Macroscopic modeling of columnar dendritic solidification, Journal of COMPUTATIONAL & APPLIED MATHEMATICS, 23 (2-3), p. 381-400, 2004			
	2. Roux, P., Goyeau, B., Gobin, D., Fichot, F., Quintard, M.: Chemical non-equilibrium modelling of columnar solidification, International Journal of Heat and Mass Transfer, 49 (23-24), pp. 4496-4510, 2006.			
	3. Dijkstra, W.O., Vuik, C., Katgerman, L.: Network model of fluid flow in semi-solid aluminum alloys, Computational Materials Science, 38 (1), pp. 67-74, 2006.			
	4. Založnik, M., Combeau, H.: An operator splitting scheme for coupling macroscopic transport and grain growth in a two-phase multiscale solidification model: Part I - Model and solution scheme, Computational Materials Science, 48 (1), pp. 1-10, 2010.			
	5. Chabanon, M.; David, B.; Goyeau, B. Averaged model for momentum and dispersion in hierarchical porous media PHYSICAL REVIEW E, Volume: 92 Issue: 2 Article Number: 023201 Published: AUG 3 2015			
	6. <u>Yang, Chen; Huang, Rong; Lin, Yixiong; et al.</u> <u>Volume averaging theory (VAT) based modeling for longitudinal mass dispersion in structured porous medium with porous particles</u> <u>CHEMICAL ENGINEERING RESEARCH & DESIGN</u> Volume: 153 Pages: 582-591 Published: JAN 2020			
VIII.	P. Bousquet-Melou, <u>A. Neculae</u> , B. Goyeau, M. Quintard: Averaged solute transport during solidification of a binary mixture: active dispersion in dendritic structures; Metallurgical and Materials Transactions B, Vol. 33B, p.365-376, 2002	4	4	2.25
	1. Duval, F., Fichot, F., Quintard, M. A local thermal non-equilibrium model for two-phase flows with phase-change in porous media International Journal of Heat and Mass Transfer, 47 (3), pp. 613-639, 2004.			
	2. Goyeau B., Bousquet-Melou P., Gobin D., Quintard M., Fichot F., Macroscopic modeling of columnar dendritic solidification Journal of COMPUTATIONAL & APPLIED MATHEMATICS, 23 (2-3), 381-400, 2004.			
	3. Roux, P., Goyeau, B., Gobin, D., Fichot, F., Quintard, M. Chemical non-equilibrium modelling of columnar solidification International Journal of Heat and Mass Transfer, 49 (23-24), pp. 4496-4510, 2006			
	4. Založnik, M., Combeau, H. An operator splitting scheme for coupling macroscopic transport and grain growth in a two-phase multiscale solidification model: Part I - Model and solution scheme Computational Materials Science, 48 (1), pp. 1-10, 2010.			
	5. Pujol, A., Debenest, G., Pommier, S., Quintard, M., Chenu, D. Modeling composting processes with local equilibrium and local non-equilibrium approaches for water exchange terms Drying Technology, 29 (16), pp. 1941-1953, 2011.			
	6. Soulaine, C., Debenest, G., Quintard, M. Upscaling multi-component two-phase flow in porous media with partitioning coefficient Chemical Engineering Science, 66 (23), pp. 6180-6192, 2011.			
	7. Luo, H., Quintard, M., Debenest, G., Laouafa, F. Properties of a diffuse interface model based on a porous medium theory for solid-liquid dissolution problems Computational Geosciences, 16 (4), pp. 913-932, 2012.			
	8. <u>Nandan, Shambhavi; Fichot, Florian; Piar, Bruno</u> <u>A simplified model for the quaternary U-Zr-Fe-O system in the miscibility gap</u> <u>NUCLEAR ENGINEERING AND DESIGN</u> Volume: 364			

		Article Number: 110608 Published: AUG 1 2020			
	9.	Guo, JW; Laouafa, F and Quintard, M Large-Scale Model for the Dissolution of Heterogeneous Porous Formations: Theory and Numerical Validation Aug. 2022, Jun 2021 (Early Access) TRANSPORT IN POROUS MEDIA, 2022 144 (1) , pp.149-174			
		D. Gobin, B. Goyeau, A. Neculae: Convective heat and solute transfer in partially porous cavities; Int. J. Heat and Mass Transfer, Vol 48/10, p. 1898-1908, 2005	3	3	18
IX.	1.	Hirata, S.C., Goyeau, B., Gobin, D., Cotta, R.M.: Stability of natural convection in superposed fluid and porous layers using integral transforms, Numerical Heat Transfer, Part B: Fundamentals, 50 (5), pp. 409-424, 2006.			
	2.	Shih, W.H., Chou, F.C., Hsieh, W.H.: Experimental investigation of the heat transfer characteristics of aluminum-foam heat sinks with restricted flow outlet, Journal of Heat Transfer – Transactions of the ASME, 129 (11), pp. 1554-1563, 2007.			
	3.	Gobin, D., Goyeau, B.: Natural convection in partially porous media: A brief overview, International Journal of Numerical Methods for Heat and Fluid Flow, 18 (3-4), pp. 465-490, 2008.			
	4.	Akbal, S., Baytaş, F.: Effects of non-uniform porosity on double diffusive natural convection in a porous cavity with partially permeable wall, International Journal of Thermal Sciences, 47 (7), pp. 875-885, 2008.			
	5.	Mezrhab, A., Lemonnier, D., Meftah, S., Benbrik, A. Numerical study of double-diffusion convection coupled to radiation in a square cavity filled with a participating grey gas Journal of Physics D: Applied Physics, 41 (19), art. no. 195501, 2008			
	8.	Wang, L., Li C., Dong J., Zhang M. An investigation of microsegregation and liquid density redistribution during solidification of inconel 718 Chemical Engineering Communications, 196 (6), pp. 754-765, 2009.			
	9.	Baytas, A.C., Baytas, A.F., Ingham, D.B., Pop, I. Double diffusive natural convection in an enclosure filled with a step type porous layer: Non-Darcy flow International Journal of Thermal Sciences, 48 (4), pp. 665-673, 2009.			
	10.	Chen, X.B., Yu, P., Sui, Y., Winoto, S.H., Low, H.T. Natural convection in a cavity filled with porous layers on the top and bottom walls Transport in Porous Media, 78 (2), pp. 259-276, 2009.			
	11.	Jiménez-Islas, H., Calderón-Ramírez, M., Navarrete-Bolaños, J.L., Botello-Álvarez, J.E., Martínez-González, G.M., López-Isunza, F. Numerical study of natural convection in a 2-D square cavity with fluid-porous medium interface and heat generation [Estudio numérico de la convección natural en una cavidad cuadrada en 2-D con interfase fluido-medio poroso y generación de calor] Revista Mexicana de Ingeniería Química, 8 (2), pp. 169-185, 2009.			
	12.	Laguerre, O., Benamara, S., Remy, D., Flick, D. Experimental and numerical study of heat and moisture transfers by natural convection in a cavity filled with solid obstacles International Journal of Heat and Mass Transfer, 52 (25-26), pp. 5691-5700, 2009.			
	13.	Chamkha, A.J., Mansour, M.A., Ahmed, S.E. Double-diffusive natural convection in inclined finned triangular porous enclosures in the presence of heat generation/absorption effects Heat and Mass Transfer, 46 (7), pp. 757-768, 2010.			
	14.	Goldstein, R.J., Ibele, W.E., Patankar, S.V., Simon, T.W., Kuehn, T.H., Strykowski, P.J., Tamma, K.K., Heberlein, J.V.R., Davidson, J.H., Bischof, J., Kulacki, F.A., Kortshagen, U., Garrick, S., Srinivasan, V., Ghosh, K., Mittal, R. Heat transfer-A review of 2005 literature International Journal of Heat and Mass Transfer, 53 (21-22), pp. 4397-4447, 2010.			
	15.	Shih, T.-M., Arie, M., Ko, D. Literature survey of numerical heat transfer (2000-2009): Part II Numerical Heat Transfer; Part A: Applications, 60 (11-12), pp. 883-1096, 2011.			
	16.	Mansour, M.A., Abd-Elaziz, M.M., Mohamed, R.A., Ahmed, S.E. Unsteady Natural Convection, Heat and Mass Transfer in Inclined Triangular Porous Enclosures in the Presence of Heat Source or Sink: Effect of Sinusoidal Variation of Boundary Conditions Transport in Porous Media, 87 (1), pp. 7-23, 2011.			
	17.	Jang, J.-Y., Chou, W.-C., Leu, J.-S.			

		Natural convection in fluid/porous region heated from below with conductive partition Journal of Thermophysics and Heat Transfer, 26 (2), pp. 367-374, 2012.
18.	Straughan B., Triply resonant penetrative convection PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES, 468 (2148), p. 3804-3823, 2012.	
19.	Hadidi N., Ould-Amer Y., Bennacer R., Bi-layered and inclined porous collector: Optimum heat and mass transfer, ENERGY, 51, p. 422-430, 2013.	
20.	Moufekkik, F., Moussaoui, M.A., Mezrhab, A., Fontaine J.P., Bouzidi, M. Investigation of Double Diffusive Natural Convection in Presence of Gray Gas Radiation Within a Square Cavity Using Multiple Relaxation Time Lattice Boltzmann Method, JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, 135 (10, 102701, 2013.	
21.	Jiang C., Zhong H., Feng W., Zen J., Zhu Q., Numerical Simulation of Thermomagnetic Convection of Air in a Porous Square Enclosure Under a Magnetic Quadrupole Field, Journal of Superconductivity and Novel Magnetism, 27 (2), p.519-525, 2014.	
22.	Sheremet M.A., Trifonova T.A., Unsteady Conjugate Natural Convection in a Vertical Cylinder Containing a Horizontal Porous Layer: Darcy Model and Brinkman-Extended Darcy Model, TRANSPORT IN POROUS MEDIA, 101 (3), p. 437-463, 2014.	
23.	Chamka A.J., Ismael M.A., Natural Convection in Differentially Heated Partially Porous Layered Cavities Filled with a Nanofluid, NUMERICAL HEAT TRANSFER PART A-APPLICATIONS, 65 (11), p. 1089-1113, 2014.	
24.	Ismael, Muneer A.; Chamkha, Ali J. CONJUGATE NATURAL CONVECTION IN A DIFFERENTIALLY HEATED COMPOSITE ENCLOSURE FILLED WITH A NANOFLUID JOURNAL OF POROUS MEDIA, Volume: 18 Issue: 7 Pages: 699-716 Published: 2015	
25.	Alsabery, A. I; Chamkha, A. J.; Hussain, S. H.; et al. Heatline visualization of natural convection in a trapezoidal cavity partly filled with nanofluid porous layer and partly with non-Newtonian fluid layer ADVANCED POWDER TECHNOLOGY, Volume: 26 Issue: 4 Pages: 1230-1244 Published: JUL 2015	
26.	Chamkha, A.J., Selimefendigil, F., Ismael, M.A. Mixed convection in a partially layered porous cavity with an inner rotating cylinder, Numerical Heat Transfer; Part A: Applications, 69 (6), pp. 659-675, 2016	
27.	Saberi, Ahmad; Nikbakhti, Rasoul NUMERICAL INVESTIGATION OF DOUBLE-DIFFUSIVE NATURAL CONVECTION IN A RECTANGULAR POROUS ENCLOSURE WITH PARTIALLY ACTIVE THERMAL WALLS JOURNAL OF POROUS MEDIA Volume: 19 Issue: 3 Pages: 259-275 Published: 2016	
28.	Alsabery, A.I., Saleh, H., Hashim, I., Hussain, S.H. Darcian natural convection in inclined square cavity partially filled between the central square hole filledwith a fluid and inside a square porous cavity filledwith nanofluid Journal of Applied Fluid Mechanics 9 (4), pp. 1763-1775, 2016	
29.	Hadidi, N., Bennacer, R. Three-dimensional double diffusive natural convection across a cubical enclosure partially filled by vertical porous layer, International Journal of Thermal Sciences, 101, pp. 143-157, 2016	
30.	Shih, W.-H., Liu, C.-C., Hsieh, W.-H. Heat-transfer characteristics of aluminum-foam heat sinks with a solid aluminum core International Journal of Heat and Mass Transfer, 97, pp. 742-750, 2016	
31.	Ismael, Muneer A.; Selimefendigil, Fatih; Chamkha, Ali J. Mixed convection in a vertically layered fluid-porous medium enclosure with two inner rotating cylinders Journal of Porous Media, Volume: 20 Issue: 6 Pages: 491-511 Published: 2017	
32.	Nguyen Minh Tuan,Abdelraheem Mahmoud Aly, Sang-Wook Lee Effect of a wavy interface on the natural convection of a nanofluid in a cavity with a partially layered porous medium using the ISPH method Numerical Heat Transfer Applications, 72(1):68-88, Published:2017	

33.	Alsabery, A.I., Chamkha, A.J., Saleh, H., Hashim, I. Natural Convection Flow of a Nanofluid in an Inclined Square Enclosure Partially Filled with a Porous Medium Scientific Reports 7 (1), 2357 (2017)
34.	Gibanov, N.S., Sheremet, M.A., Ismael, M.A., Chamkha, A.J. Mixed Convection in a Ventilated Cavity Filled with a Triangular Porous Layer Transport in Porous Media, 120 (1) (2017)
35.	Ismael, Muneer A. DOUBLE-DIFFUSIVE MIXED CONVECTION IN A COMPOSITE POROUS ENCLOSURE WITH ARC-SHAPED MOVING WALL: TORTUOSITY EFFECT Journal of Porous Media, Volume: 21, Issue: 4 Pages: 343-362 Published: 2018
36.	de Lemos, Marcelo J. S.; Carvalho, Paulo H. S. THE EFFECTS OF POROSITY AND MASS-TO-THERMAL DRIVE RATIO ON AIDING AND OPPOSING CONVECTION IN POROUS ENCLOSURES JOURNAL OF ENHANCED HEAT TRANSFER Volume: 25 Issue: 4-5 Special Issue: SI Pages: 399-419 Published: 2018
37.	Hu, J.-T., Mei, S.-J., Liu, D., Zhao, F.-Y., Wang, H.-Q. Buoyancy driven heat and species transports inside an energy storage enclosure partially saturated with thermal generating porous layers International Journal of Thermal Sciences" 126, pp. 38-55 (2018)
38.	Malla, Laxman K.; Jena, Sofen K.; Mahapatra, Swarup K.; et al. Mixed convection inside a fluid-porous composite cavity with centrally rotating cylinder HEAT TRANSFER-ASIAN RESEARCH, Volume 47, Issue: 4, Pages: 684-701 Published: JUN 2018
39.	Hu, Jiang-Tao; Mei, Shuo-Jun; Liu, Di; et al. Buoyancy driven double diffusive moisture convection inside the fluid-porous-solid sandwiched building enclosure containing internal heating sources INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, Volume: 123 Pages: 600-615 Published: AUG 2018
40.	Ismael, M. A.; Ghalib, H. S. Double diffusive natural convection in a partially layered cavity with inner solid conductive body SCIENTIA IRANICA Volume: 25 Issue: 5 Pages: 2643-2659 Published: SEP-OCT 2018
41.	Hadidi, N.; Bennacer, R. Heat and mass transfer by natural convection in a bi-layered cubic enclosure with opposing temperature and concentration gradients INTERNATIONAL JOURNAL OF THERMAL SCIENCES Volume: 132 Pages: 534-551 Published: OCT 2018
42.	<u>Ismael, M. A.; Ghalib, H. S.</u> <u>Double diffusive natural convection in a partially layered cavity with inner solid conductive body</u> <u>SCIENTIA IRANICA</u> Volume: 25 Issue: 5 Pages: 2643-2659 Published: SEP-OCT 2018
43.	<u>Liang, Tiansheng; Xu, Hongtao; Zhang, Zhouzhou; et al.</u> <u>LATTICE BOLTZMANN SIMULATIONS OF DOUBLE-DIFFUSIVE CONVECTION IN LID-DRIVEN COMPOSITE CAVITY</u> <u>JOURNAL OF POROUS MEDIA</u> Volume: 23 Issue: 2 Pages: 121-137 Published: 2020
44.	<u>He, Boyu; Lu, Shihua; Gao, Dongyan; et al.</u> <u>Lattice Boltzmann simulation of double diffusive natural convection in heterogeneously porous media of a fluid with temperature-dependent viscosity</u> <u>CHINESE JOURNAL OF PHYSICS</u> Volume: 63 Pages: 186-200 Published: FEB 2020
45.	<u>Anwar, Talha; Kumam, Poom; Shah, Zahir; et al.</u> <u>Unsteady Radiative Natural Convective MHD Nanofluid Flow Past a Porous Moving Vertical Plate with Heat Source/Sink</u> <u>MOLECULES</u> Volume: 25 Issue: 4 Article Number: 854 Published: FEB 2 2020
46.	<u>Unsteady double diffusive convection inside a partial porous building enclosure subjected to time-periodic temperature boundary condition</u> <u>Hu, JT and Mei, SJ</u> Mar 2021 Feb 2021 (Early Access) INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER 122
47.	Selimefendigil, F and Oztop, HF Combined effects of double porous layers and nanofluids on the performance of confined single and multi-jet impingement heat transfer

		May 2021 (Early Access) CHEMICAL ENGINEERING COMMUNICATIONS			
	48.	Asifa; Kumam, P; (...); Anwar, T Radiative MHD unsteady Casson fluid flow with heat source/sink through a vertical channel suspended in porous medium subject to generalized boundary conditions Jul 2021 PHYSICA SCRIPTA 96 (7)			
	49.	Aly, AM; Alsedais, N and Oztop, HF Effects of a magnetic field on double-diffusive convection of a nanofluid in a cavity saturated by wavy layers of porous media: ISPH analysis Jan 20 2022 Jul 2021 (Early Access) INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW 32 (3) , pp.1046-1066			
	50.	Omara, A; Touiker, M and Bourouis, A Thermosolutal natural convection in a partly porous cavity with sinusoidal wall heating and cooling Jan 20 2022 Jul 2021 (Early Access) INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW 32 (3) , pp.1115-1144			
	51.	Bhardwaj, S and Dalal, A Numerical Investigation of Free Convection in a Porous Corrugated Cavity Filled With Silver (Ag) Dispersed Nano-Fluid Aug 1 2021 JOURNAL OF THERMAL SCIENCE AND ENGINEERING APPLICATIONS 13 (4)			
	52.	Hernandez-Rodriguez, R; Angot, P; (...); Ochoa-Tapia, JA Momentum transport in the free fluid-porous medium transition layer: one-domain approach Feb 2 2022 Oct 2021 (Early Access) CHEMICAL ENGINEERING SCIENCE 248			
	53.	Kolsi, L; Hussain, S; (...); Maatki, C Double Diffusive Natural Convection in a Square Cavity Filled with a Porous Media and a Power Law Fluid Separated by a Wavy Interface Apr 2022 Mathematics, 10 (7)			
	54.	<u>Hamzah, HK; Kareem, DF; (...); Hatami, M</u> <u>Heatlines Analysis of Natural Convection in an Enclosure Divided by a Sinusoidal Porous Layer and Filled by Cu-Water Nanofluid with Magnetic Field Effect</u> Jun 2022 <u>IRANIAN JOURNAL OF CHEMISTRY & CHEMICAL ENGINEERING-INTERNATIONAL ENGLISH EDITION 41 (6) , pp.2046-2070</u>			
X.		<u>A. Neculae, A.M. Balint: Axial segregation in unsteady diffusion-dominated solidification of a binary alloy in a finite cylindrical ampoule, International Journal of Modern Physics B, Vol 20, No.18, p. 2551-2560, 2006</u>	2	2	0
XI.		M. Paulescu, E. Tulcan-Paulescu, <u>A. Neculae</u> , and P. Gravila: A simple but accurate multiband solar cells model; Proceedings of SPIE, Vol. 7002, 70020T-1, 2008, ISBN 978-0-8194-7203-8	4	4	0
XII.		<u>A. Neculae, M. Paulescu and D. Curticapean: Modeling and numerical simulation of the transport processes inside DSSC using a monodomain approach; Proceedings of SPIE, Vol. 7002, 70020Y-1, 2008, ISBN 978-0-8194-7203-8</u>	3	3	0
XIII.		D. Curticapean and <u>A. Neculae</u> : Temperature measurement using optical fiber with applications to automobiles considering a high accurate numerical solution for the conductive heat transport in a circular cylinder; Proceedings of SPIE, Vol. 7003, 70032K-1, 2008, ISBN 978-0-8194-7203-8	2	2	0
XIV.		M. Paulescu, E. Tulcan-Paulescu, <u>A. Neculae</u> , P. Gravila: Internal Reflection Influence on the Multiple Quantum Well Solar Cell Efficiency; Journal of Optoelectronics and Advanced Materials, Vol. 10, No.9, p.2441-2444, 2008.	4	4	0.5
	1.	Paulescu, M., Tulcan-Paulescu, E., Gravila, P.: A hybrid model for quantum well solar cells, International Journal of Modern Physics B, 24 (14), pp. 2121-2133, 2010.			
	2.	Sterian, P., Fara, S., Fara, L., Iancu, M.: A study of the optical properties of quantum well solar cells aimed at optimizing their configuration, University Politehnica of Bucharest Scientific Bulletin, Series A: Applied Mathematics and Physics, 72 (1), pp. 9-20, 2010.			

XV.		<u>A. Neculae</u> and M. Paulescu: Numerical simulation for the current density of p-n junction like-type solar cells; Journal of Optoelectronics and Advanced Materials, Vol. 10, No.9, p.2438-2440, 2008.	2	2	0.5
	1.	<u>Heidarzadeh, Hamid</u> Performance analysis of cubic silicon carbide solar cell as an appropriate candidate for high temperature application <u>OPTICAL AND QUANTUM ELECTRONICS</u> Volume: 52 Issue: 4 Article Number: 192 Published: MAR 18 2020			
XVI.		M. Lungu, <u>A. Neculae</u> , M. Bunoiu: Some consideration on the dynamics of nanometric suspensions in fluid media; American Institute of Physics Conference Proceedings 1131, Proceedings of the physics conference TIM-08, Timisoara, ROMANIA, November 28-29, 2008, p.164-168, 2009, ISBN 978-0-7354-0668-1	3	3	0
XVII.		<u>A. Neculae</u> , D. Curticapean: Numerical study on radiative heat transfer and boundary control of glass fibers cooling process; American Institute of Physics Conference Proceedings 1262, Proceedings of the physics conference TIM-09, Timisoara, ROMANIA, November 27-28, 2009, p.155-160, 2010, ISBN 978-0-7354-0810-4	2	2	0
XVIII.		<u>A. Neculae</u> , M. Bunoiu, M. Lungu: Numerical simulation of the bioparticle manipulation process using dielectrophoresis; American Institute of Physics Conference Proceedings 1262, Proceedings of the physics conference TIM-09, Timisoara, ROMANIA, November 27-28, 2009, p.144-149, 2010, ISBN 978-0-7354-0810-4	3	3	0
XIX.		M. Paulescu, N. Stefu, E. Tulcan-Paulescu, D. Calinoiu, <u>A. Neculae</u> , P. Gravila: UV solar irradiance from broadband radiation and other meteorological data; Atmospheric Research, 96, p.141-148, 2010	6	5.5	5.0909
	1.	Hu, B., Wang, Y.S., Liu, G.R. The characteristics of ultraviolet radiation in arid and semi-arid regions of China Journal of Atmospheric Chemistry, 67 (2-3), pp. 141-155, 2010.			
	2.	Malinovic-Milicevic, S., Mihailovic, D.T. The use of NEOPLANTA model for evaluating the UV index in the Vojvodina region (Serbia) Atmospheric Research, 101 (3), pp. 621-630, 2011.			
	3.	Hanaor, D., Michelazzi, M., Chenu, J., Leonelli, C., Sorrell, C.C. The effects of firing conditions on the properties of electrophoretically deposited titanium dioxide films on graphite substrates Journal of the European Ceramic Society, 31 (15), pp. 2877-2885, 2011.			
	4.	Petkov, B., Vitale, V., Gröbner, J., Hülsen, G., De Simone, S., Gallo, V., Tomasi, C., Busetto, M., Barth, V.L., Lanconelli, C., Mazzola, M. Short-term variations in surface UV-B irradiance and total ozone column at Ny-Ålesund during the QAARC campaign Atmospheric Research, 108, pp. 9-18, 2012			
	5.	Paulescu, E., Stefu, N., Gravila, P., Boata, R.S., Pop, N., Paulescu, M. Procedure of embedding biological action functions into the atmospheric transmittance Theoretical and Applied Climatology, 109 (3-4), pp. 323-332, 2012.			
	6.	Nisulescu, G.C., Ionel, I., Malan, B., Dobrin, M. Remote SO2 Monitoring with UV cameras for stack emissions Revista de Chimie, 63 (9), pp. 940-944, 2012.			
	7.	Calinoiu D., Paulescu M., Ionel I., Stefu N., Pop N., Boata R., Pacurar A., Gravila P., Paulescu E., Trif-Tordai G., Influence of aerosols pollution on the amount of collectable solar energy, ENERGY CONVERSION AND MANAGEMENT, 70, p. 76-82, 2013.			
	8.	Hu B., Wang Y., Ultraviolet radiation in the background region over Northeast China JOURNAL OF ATMOSPHERIC CHEMISTRY, 70 (3), p. 283-296, 2013.			
	9.	Wang L., Gong W., Ma Y., Hu B., Wang W., Zhang M., Analysis of ultraviolet radiation in Central China from observation and estimation, ENERGY, 59, p. 764-774, 2013			
	10.	Mihailovic D.T., Malinovic-Milicevic S., Arsenic I., Dreskovic N., Bukosa B.,			

		KOLMOGOROV COMPLEXITY SPECTRUM FOR USE IN ANALYSIS OF UV-B RADIATION TIME SERIES, MODERN PHYSICS LETTERS B, 27 (27), 1350194, 2013.
11.	Hu B., Wang Y.,	Variation characteristics of ultraviolet radiation over the North China plain, ADVANCES IN ATMOSPHERIC SCIENCES, 31 (1), 110-117, 2014.
12.	Lefevre M., Blanc P., Espinar B., Gschwind B., Menard L., Ranchin T., Wald L., Saboret L., Thomas C., Wey E.,	The HelioClim-1 Database of Daily Solar Radiation at Earth Surface: An Example of the Benefits of GEOSS Data-CORE, IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING, 7 (5), p. 1745-1753, 2014.
13.	Wang L., Gong W., Li J., Ma Y., Hu B.,	Empirical studies of cloud effects on ultraviolet radiation in Central China, INTERNATIONAL JOURNAL OF CLIMATOLOGY, 34 (7), p. 2218-2228, 2014.
14.	Jacovides C.P., Tymvios F.S., Boland J., Tsitouri M.,	Artificial Neural Network models for estimating daily solar global UV, PAR and broadband radiant fluxes in an eastern Mediterranean site, ATMOSPHERIC RESEARCH, 152, p. 138-145, 2015.
15.	Gong W., Zhang M., Wang L., Hu B., Ma Y.,	Measurement and estimation of ultraviolet radiation in Pearl River Delta, China Journal of Atmospheric and Solar-Terrestrial Physics, 123, p. 63-70, 2015.
16.	Wang L., Gong W., Luo M., Wang W., Hu B., Zhang M.,	Comparison of different UV models for cloud effect study Energy, 80, p. 695-705, 2015.
17.	Hu, B., Wang, Y.,	The attenuation effect on ultraviolet radiation caused by aerosol and cloud in Lhasa, Tibetan Plateau of China, Advances in Space Research, 56 (1), pp. 111-118, 2015
18.	Malinovic-Milicevic, S.; Mihailovic, D. T.; Radovanovic, M. M.	Reconstruction of the erythemal UV radiation data in Novi Sad (Serbia) using the NEOPLANTA parametric model THEORETICAL AND APPLIED CLIMATOLOGY Volume: 121 Issue: 1-2 Pages: 131-138 Published: JUL 2015
19.	Aculinin, Alexandr; Brogniez, Colette; Bengulescu, Marc; et al.	Assessment of Several Empirical Relationships for Deriving Daily Means of UV-A Irradiance from Meteosat-Based Estimates of the Total Irradiance REMOTE SENSING Volume: 8 Issue: 7 Article Number: 537 Published: JUL 2016
20.	Liu, H.; Hu, B.; Zhang, L.; et al.	Spatiotemporal characteristics of ultraviolet radiation in recent 54 years from measurements and reconstructions over the Tibetan Plateau JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES Volume: 121 Issue: 13, Pages: 7673-7690 Published: JUL 16 2016
21.	Stefu, Nicoleta; Paulescu, Marius; Gravila, Paul; et al.	MODEL FOR THE UV BIOLOGICALLY EFFECTIVE DOSE AND APPLICATION UNDER FUTURE CLIMATE CONDITIONS ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, Volume: 16, Issue: 1 Pages: 225-234 Published: JAN 2017
22.	Choosri, P., Janjai, S., Nunez, M., Buntoung, S., Chanalert, W.	Development of a method for mapping monthly average hourly diffuse erythemal ultraviolet radiation Journal of Atmospheric and Solar-Terrestrial Physics, 161, pp. 19-27 (2017)
23.	Malinovic-Milicevic, Slavica; Vyklyuk, Yaroslav; Radovanovic, Milan M.; et al.	Long-term erythemal ultraviolet radiation in Novi Sad (Serbia) reconstructed by neural network modelling INTERNATIONAL JOURNAL OF CLIMATOLOGY Volume: 38 Issue: 8 Pages: 3264-3272 Published: JUN 30 2018
24.	Gueymard, Christian A.	The SMARTS spectral irradiance model after 25 years: New developments and validation of reference spectra

		<u>SOLAR ENERGY</u> Volume: 187 Pages: 233-253 Published: JUL 15 2019			
	25.	<u>Zhang, Jinqiang; Xia, Xiangao; Wu, Xue</u> First in situ UV profile across the UTLS accompanied by ozone measurement over the Tibetan Plateau <u>JOURNAL OF ENVIRONMENTAL SCIENCES</u> Volume: 98 Pages: 71-76 Published: DEC 2020			
	26.	<u>Paulescu, E and Paulescu, M</u> A new clear sky solar irradiance model Dec 2021 Aug 2021 (Early Access) <u>RENEWABLE ENERGY</u> 179 , pp.2094-2103			
	27.	Malinovic-Milicevic, S; Radovanovic, MM; (...); Petrovic, MD Reconstruction and variability of high daily erythemal ultraviolet doses and relationship with total ozone, cloud cover, and albedo in Novi Sad (Serbia) Jul 2022 (Early Access) International Journal of Climatology			
	28.	Garcia-Rodriguez, S; Garcia, I; (...); Alonso-Tristan, C Solar Ultraviolet Irradiance Characterization under All Sky Conditions in Burgos, Spain Oct 2022, <u>APPLIED SCIENCES-BASEL</u> 12 (20)			
XX.		M. Lungu, <u>A. Neculae</u> , M. Bunoiu: Some considerations on the dielectrophoretic manipulation of nanoparticles in fluid media, Journal of Optoelectronic and Advanced Materials, Vol. 12 ISS 12, p. 2423-2426, 2010	3	3	0
		M. Lungu, <u>A. Neculae</u> , M. Bunoiu, N. Strambeanu: Some considerations on the nanoparticles manipulation in fluid media using dielectrophoresis; Romanian Journal of Physics, Vol. 56 (5-6), p. 749-756, 2011.	4	4	0.5
XXI.	1.	Dash S., Mohanty S.: Dielectrophoretic separation of micron and submicron particles: A review, Electrophoresis, 35 (18), p. 2656-2672, 2014			
	2.	Purnell, Marcy C.; Skrinjar, Terence J. The Dielectrophoretic Disassociation of Chloride Ions and the Influence on Diamagnetic Anisotropy in Cell Membranes <u>DISCOVERY MEDICINE</u> Volume: 22 Issue: 122 Pages: 257-273 Published: NOV 2016			
XXII.		<u>A. Neculae</u> , S. Arjoca, D. Vizman: Numerical study of heat transfer in buildings for different environmental conditions; American Institute of Physics Conference Proceedings 1387, Proceedings of the physics conference TIM-10, Timisoara, ROMANIA, November 25-27, 2010, p.276-281, 2011, ISBN 978-0-7354-0951-4	3	3	0
XXIII.		<u>A. Neculae</u> , M. Lungu, T. Nicolici-Schultz, M. Bunoiu: Numerical study regarding the influence of electrodes' geometry on the dielectrophoretic forces; American Institute of Physics Conference Proceedings 1387, Proceedings of the physics conference TIM-10, Timisoara, ROMANIA, November 25-27, 2010, p.270-275, 2011, ISBN 978-0-7354-0951-4	4	4	0
XXIV.		<u>A. Neculae</u> , M. Lungu, M. Bunoiu, R. Giugiulan: Electrohydrodynamic modeling for manipulation of micro/nano particles in microfluidic systems; American Institute of Physics Conference Proceedings 1472, Proceedings of the physics conference TIM-11, Timisoara, ROMANIA, November 24-27, 2011, p.155-161, 2012, ISBN 978-0-7354-1079-4	4	4	0
		<u>A. Neculae</u> , C. G. Biris, M. Bunoiu, M. Lungu: Numerical analysis of nanoparticle behavior in a microfluidic channel under dielectrophoresis; J. Nanopart Res. Vol. 14, p. 1154-1165, 2012.	4	4	1.5
XXV.	1.	Wang, Y., Du, F., Baune, M., Thöming, J.: Predicting and eliminating Joule heating constraints in large dielectrophoretic IDE separators, <u>Chemical Engineering Science</u> , Vol. 137 (1), pp. 235-242 (2015)			
	2.	Mathew, B., Alazzam, A., Abutayeh, M., Gawanmeh, A., Khashan, S.: Modeling the trajectory of microparticles subjected to dielectrophoresis in a microfluidic device for field flow fractionation, <u>Chemical Engineering Science</u> , Vol. 138, pp. 266-280 (2015), doi:10.1016/j.ces.2015.07.014			

	3.	Dash, S., Mohanty, S. Pradhan S., Mishra B.K.: CFD design of a microfluidic device for continuous dielectrophoretic separation of charged gold nanoparticles, Journal of the Taiwan Institute of Chemical Engineers, Vol. 58, pp. 39–48 (2016) doi:10.1016/j.jtice.2015.05.034			
	4.	Gawanmeh, A; Alazzam, A and Mathew, B Design and Verification of a Blood Cell Separation Microfluidic Device 2017 International Journal of Online Engineering, 13 (6) , pp.105-112			
	5.	<u>Kazemi, Bahar; Darabi, Jeff</u> <u>Numerical simulation of dielectrophoretic particle separation using slanted electrodes</u> <u>PHYSICS OF FLUIDS</u> Volume: 30 Issue: 10 Article Number: 102003 Published: OCT 2018			
	6.	<u>Xie, Y., Rufo, J., Zhong, R., (...), Leong, K.W., Huang, T.J.</u> <u>Microfluidic Isolation and Enrichment of Nanoparticles</u> <u>ACS Nano</u> , 14 (12) pp.16220-16240, 2020			
XXVI.		<u>A. Neculae</u> , A. Otte, D. Curticapean: Numerical analysis of the diffusive mass transport in brain tissues with applications to optical sensors; Proceedings of SPIE, Book Editor(s): Gannot, I, Volume: 8576, Article Number: 857605, DOI: 10.1117/12.2004436 Published: 2013, ISBN: 978-0-8194-9345-3 http://spie.org/Publications/Proceedings/Volume/8576	3	3	0
XXVII.		M. Lungu, R. Giugiulan, M. Bunoiu, N. Strambeanu and <u>A. Neculae</u> : Submicron particle trapping using traveling wave dielectrophoresis; American Institute of Physics Conference Proceedings 1564, Proceedings of the physics conference TIM-12, Timisoara, ROMANIA, November 27-30, 2012, p.111-116, 2013, ISBN 978-0-7354-1192-0,	5	5	0.2
	1.	Seon, Ji-Yun; Yoon, Young Joon; Kim, Chang-Yeoul; Kim, Hyo Tae: Manipulation of TiO ₂ Nanotubes in a Transparent Dielectrophoretic Device Journal of Nanoscience and Nanotechnology, Volume 16, Number 2, February 2016, pp. 1711-1714(4)			
		<u>A. Neculae</u> , 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	4	4	0.5
XXVIII.	1.	Dash, S., Mohanty, S., Pradhan, S., Mishra, B.K.: CFD design of a microfluidic device for continuous dielectrophoretic separation of charged gold nanoparticles, Journal of the Taiwan Institute of Chemical Engineers, Vol. 58, pp. 39–48 (2016), doi:10.1016/j.jtice.2015.05.034			
	2.	Vlad, VI; Baran, V; Nicolin, AI; Mihalache, D: THE FIRST SEVENTY VOLUMES OF ROMANIAN REPORTS IN PHYSICS: A BRIEF SURVEY OF THE ROMANIAN PHYSICS COMMUNITY Romanian Reports in Physics, Volume: 70 Issue: 1 Article Number: 101 Published: 2018			
		A. Marchis, <u>A. Neculae</u> : Numerical simulation of bioparticle separation by Dielectrophoretic Field-Flow-Fractionation (DEP-FFF); American Institute of Physics Conference Proceedings 1634, Proceedings of the physics conference TIM-13, Timisoara, ROMANIA, November 21-24, 2013, p.161-167, Melville, New York, 2014, ISBN 978-0-7354-1273-6	2	2	1.5
XXIX.	1.	Bartuschat, D.; Ruede, U.: Parallel multiphysics simulations of charged particles in microfluidic flows, JOURNAL OF COMPUTATIONAL SCIENCE, Volume: 8 Pages: 1-19 Published: MAY 2015			
	2.	Knoerzer, Markus; Szydzik, Crispin; Tovar-Lopez, Francisco Javier; et al. Dynamic drag force based on iterative density mapping: A new numerical tool for three-dimensional analysis of particle trajectories in a dielectrophoretic system ELECTROPHORESIS, Volume: 37 Issue: 4 Pages: 645-657 Published: FEB 2016			
	3.	<u>Shkolnikov, Viktor; Xin, Daisy; Chen, Chien-Hua</u> <u>Continuous dielectrophoretic particle separation via isomotive dielectrophoresis with bifurcating stagnation flow</u> <u>ELECTROPHORESIS</u> Volume: 40 Issue: 22 Pages: 2988-2995 Published: NOV 2019			

XXX.	M. Lungu, S. Balasiu, M. O. Bunoiu and <u>A. Neculae</u> : Study of a 3D DEP-based microfluidic system for selective nanoparticle manipulation, American Institute of Physics Conference Proceedings 1634, Proceedings of the physics conference TIM-13, Timisoara, ROMANIA, November 21-24, 2013, p.89-94, Melville, New York, 2014, ISBN 978-0-7354-1273-6	4	4	0
XXXI.	<u>Neculae, A</u> ; Strambeanu, N ; Lungu, A; Bunoiu, M; Lungu, M: Nanoparticles Trapping from Flue Gas Using Dielectrophoresis, TIM14 PHYSICS CONFERENCE: PHYSICS WITHOUT FRONTIERS Book Series: AIP Conference Proceedings Volume: 1694 Article Number: UNSP 040004 Published: 2015	5	5	0
XXXII.	<u>Neculae, A</u> ; Lungu, A; Strambeanu, N; Lungu, M.: Recovery of Nanoparticles from Flue Gas using Dielectrophoresis, Proceedings of the 24th International Mining Congress and Exhibition of Turkey, IMCET 2015 Pages: 1382-1388 Published: 2015	4	4	0
XXXIII.	M. Lungu, <u>A. Neculae</u> 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):491 1-14, 2015, DOI: 10.1007/s11051-015-3304-y	3	3	1
	1. <u>Jin, Q. H.; Cui, C. Y.; Chen, H. Y.</u> ; et al. <u>Efficient removal of arsenic from water by dielectrophoresis-assisted adsorption</u> By: <u>Jin, Q. H.; Cui, C. Y.; Chen, H. Y.</u> ; et al. <u>WATER SCIENCE AND TECHNOLOGY-WATER SUPPLY</u> Volume: 19 Issue: 4 Pages: 1066-1072 Published: JUN 2019			
	2. <u>Pesch, Georg R.; Du, Fei</u> <u>A review of dielectrophoretic separation and classification of non-biological particles</u> <u>ELECTROPHORESIS</u> 42 (1-2) pp. 134-152 Early Access: JUL 2020			
	3. Liu, B; Xia, QC; (...); Gao, GD Dielectrophoresis-Based Universal Membrane Antifouling Strategy toward Colloidal Foulants Aug 2 2022 Jul 2022 (Early Access) Environmental Science & Technology, 56 (15), pp.10997-11005			
XXXIV.	<u>A. Neculae</u> , 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, p. 957-969, 2016	4	4	0
XXXV.	<u>A. Neculae</u> , M. Bunoiu, A. Lungu and M. Lungu: Filtration of flue gas by retaining of nanoparticles in microfluidic devices using dielectrophoresis, Romanian Reports in Physics, Vol. 68, No. 3, p. 1085-1096, 2016	4	4	0
XXXVI.	Lungu, M; Lungu, A; Stefu, N; <u>Neculae, A</u> ; Strambeanu, N.: Analysis of Airborne Particulate Matter Pollution in Timisoara City Urban Area and Correlations Between Measurements and Meteorological Data, AIP Conference Proceedings Volume: 1796 Article Number: UNSP 040011 Published: 2017	5	5	0
XXXVII.	Lungu, M; <u>Neculae, A</u> ; Lungu, A; Strambeanu, N; Arghiriade, D; Demetrovici, L.: Study on nanoparticles flow reduction tests to HWI plants using numerical simulations, 20TH INTERNATIONAL SYMPOSIUM - THE ENVIRONMENT AND THE INDUSTRY (SIMI 2017) 99-111, 2017	6	5.5	0
XXXVIII.	M. Lungu, <u>A. Neculae</u> : Eddy current separation of small nonferrous particles using a complementary air-water method, Separation Science and Technology Vol. 53 (1), 126-135, 2018	2	2	3.0
	1. <u>Ma Xiushui; Zhang Shuming; Ma Xie</u> ; et al. <u>Calculation of the Electromagnetic Repulsion for Eddy Current Separation About the Scrap Copper</u> <u>JOURNAL OF NANOELECTRONICS AND OPTOELECTRONICS</u> Volume: 13 Issue: 9 Pages: 1427-1435 Published: SEP 2018			
	2. <u>Bi, Haijun; Zhu, Huabing; Zu, Lei</u> ; et al.			

		<u>A new model of trajectory in eddy current separation for recovering spent lithium iron phosphate batteries</u> WASTE MANAGEMENT Volume: 100 Pages: 1-9 Published: DEC 2019			
	3.	<u>Bin, C., Yi, Y., Yerbol, A., (...), Tiansheng, W., Qiang, W.</u> <u>Optimization of Halbach magnetic roller for eddy current separation based on the response surface method and multi-objective genetic algorithm</u> Journal of Cleaner Production 278, 123531, 2021			
	4.	<u>Huang, Z; Zhu, J; (...); Ruan, JJ</u> <u>Eddy current separation can be used in separation of non-ferrous particles from crushed waste printed circuit boards</u> Aug 20 2021 Jun 2021 (Early Access) JOURNAL OF CLEANER PRODUCTION 312			
	5.	Yi, Y; Bin, C; (...); Qiang, W Effects of material temperature on the separation efficiency in a rotary-drum type eddy current separator May 2022, POWDER TECHNOLOGY, 404			
	6.	<u>Bin, C; Yi, Y; (...); Montalvao, D</u> <u>Effects of particle size on the separation efficiency in a rotary-drum eddy current separator</u> September 2022, POWDER TECHNOLOGY 410			
		+ 1 neindexata			
XXXIX		Balint, AM; Balint, S and <u>Neculae, A</u> : On the objectivity of mathematical description of ion transport processes using general temporal Caputo and Riemann-Liouville fractional partial derivatives, Mar 2022 CHAOS SOLITONS&FRACTALS, 156	3	3	0.3333
	1.	<u>Zine, H; Lotfi, E; (...); Yousfi, N</u> Weighted Generalized Fractional Integration by Parts and the Euler-Lagrange Equation Apr 2022 AXIOMS, 11 (4)			
Punctaj total indicator 3.1					C = 37.137

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3.2. Indicele Hirsch

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Precizări:

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

Criteria minimale pentru recunoașterea impactului activității:CSII, conferențiar universitar: $C \geq 20$, $h \geq 5$ CS I, profesor universitar: $C \geq 40$ $h \geq 10$ **Punctajul total CNATDCU:**

$$T = A + P / 2 + I / 2 + C / 20 + h / 5$$

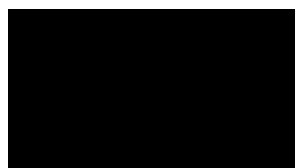
$$T = 5.078 + 2.103/2 + 3.69/2 + 37.137/20 + 7/5 = \mathbf{11.231}$$

Criteria minimale punctaj total:CS I, profesor universitar: $T \geq 12$ CSII, conferențiar universitar: $T \geq 5$

Pentru Asistenți și asistenți cercetare (50% valoare minimă conf/CSII)

Pentru Lectori (80% valoare minimă conf/CSII)

Indicator	A	I	P	C	h	T
Valoare minima pentru poziția ocupată în prezent (cf grilei CNATDCU)	1	2	2	20	5	5
Valoare realizată	5.078	2.103	3.69	37.137	7	11.231
Indeplinit/Neindeplinit	Indeplinit	Indeplinit	Indeplinit	Indeplinit	Indeplinit	Indeplinit

Semnătură**26.05.2023**