



Anexa nr.1

FIȘA DE EVALUARE GENERALĂ A STANDARDELOR UNIVERSITĂȚII

Nume și prenume cercetător: **HROȘTEA LAURA**
Centrul **RAMTECH**

DESCRIPTORI	PUNCTAJE ACORDATE	PUNCTAJ REALIZAT
1. Articole științifice publicate <i>in extenso</i> în reviste cotate <i>Web of Science</i> cu factor de impact	(60 puncte x factor de impact + 25) / număr autori	387.01
<i>An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications,</i> L. Hrostea , M. Dobromir 2022 Materials Today Communications 33 IF = 3.662		122,36
<i>Studies of the Structure and Optical Properties of BaSrMgWO₆ Thin Films Deposited by a Spin-Coating Method</i> Punga L, Abbassi A, Toma M, Alupului T, Doroftei C, Dobromir M, Timpu D, Doroftei F, Hrostea L , Rusu GG, Razouk A, Iacomì F, 2022 Nanomaterials IF = 5.719		30,67
<i>Studies on the Physical Properties of TiO₂:Nb/Ag/TiO₂:Nb and NiO/Ag/NiO Three-Layer Structures on Glass and Plastic Substrates as Transparent Conductive Electrodes for Solar Cells</i> Hrostea Laura ; Lisnic Petru; Mallet Romain; Leontie Liviu; Girtan Mihaela Jun 2021 Nanomaterials IF = 5.719		73,62
<i>On the Electrical and Optical Properties Stability of P3HT Thin Films Sensitized with Nitromethane Ferric Chloride Solutions</i> L. Hrostea , L. Leontie, M. Dobromir, C. Doroftei, M. Girtan 2020 Coatings IF = 2.881		39,57
<i>Characterization of PBDB-T-SF: fullerene blend thin films for solar cell applications,</i> L. Hrostea , L. Leontie, M. Girtan, 2020 Romanian Reports in Physics IF = 1.785		44,03
<i>Oxide/metal/oxide electrodes for solar cell applications,</i> L. Hrostea , M. Boclinca, M. Socol, L. Leontie, A. Stanculescu, M. Girtan 2017 Solar Energy IF= 4.374		47,90
<i>A Critical Review of Photovoltaic Cells Based on Organic Monomeric and Polymeric Thin Film Heterojunction,</i> S. Antohe, Sorina Iftimie, Laura Hrostea , V.A. Antohe, Mihaela Girtan, 2017 Thin Solid Films IF = 1.939		28,86
2. Articole științifice publicate <i>in extenso</i> în reviste indexate fără factor de impact	20 puncte / număr autori	5
<i>Study of oxide/metal/oxide thin films for transparent electronics and solar cells applications by spectroscopic ellipsometry,</i> Girtan M., Hrostea L. , Boclinca M., Negulescu B.		5



DESCRIPTORI	PUNTAJE ACORDATE	PUNCTAJ REALIZAT
2017 AIMS Materials Science		
3. Articole științifice publicate <i>in extenso</i> în reviste indexate BDI	15 puncte / număr autori	0
4. Articole științifice publicate <i>in extenso</i> în volumele conferințelor	indexate ISI: 30 puncte / număr autori	7,5
<i>Optical and Morphological Properties of P3HT and P3HT: PCBM Thin Films used in Photovoltaic Applications,</i> L. Hrostea , M. Girtan, R. Mallet, L. Leontie, 2018 IOP Conf. Series: Materials Science and Engineering 374		7,5
	indexate în BDI: 15 puncte / număr autori	0
	alte categorii: 5 puncte / număr autori	1,66
<i>Chemical Sensitization for Electric Properties Improvement of PBDB-T-SF Polymer for Solar Cells Application,</i> L. Hrostea , L. Leontie, M. Girtan, 2020 IOP Conf. Series: Materials Science and Engineering		1,66
5. Cărți științifice publicate (doar prima ediție)	edituri academice internaționale: 100 puncte la 100 pagini / număr autori	0
	alte edituri internaționale: 70 puncte la 100 pagini / număr autori	0
	edituri academice naționale: 50 puncte la 100 pagini / număr autori	0
	alte edituri naționale: 20 puncte la 100 pagini / număr autori	0
6. Cărți științifice traduse și publicate în edituri din străinătate	100 puncte la 100 pagini / număr autori	0
7. Coordonarea și editarea de volume, traduceri și antologii	edituri academice internaționale: 60 puncte / număr autori	0
	alte edituri internaționale: 40 puncte / număr autori	0
	edituri academice naționale: 30 puncte / număr autori	0
	alte edituri naționale: 15 puncte / număr autori	0
8. Articole publicate în dicționare și enciclopedii	edituri academice internaționale: 30 puncte / număr autori	0
	alte edituri internaționale: 20 puncte / număr autori	0
	edituri academice naționale: 15 puncte / număr autori	0
	alte edituri naționale: 5 puncte / număr autori	0
9. Contracte de cercetare științifică în instituții academice (universități, institute ale Academiei Române, institute naționale de cercetare, institute de cercetare din străinătate, alte categorii de institute academice)	contracte internaționale – director: 100 puncte pentru fiecare 100.000 Euro	0
	contracte internaționale – membru: 100 puncte pentru fiecare 100.000 Euro / numărul membrilor echipei de cercetare	0
	Membru Proiect: Testarea pe teren a unui nod repetitor cuantic integrat, Contract de Finanțare NR. 283/2022, Cod proiect: COFUND-QUANTERA-2-InQuRe; Buget: 989.990 lei 6 membri	33,33
	contracte naționale – director: 50 puncte pentru fiecare 500.000 lei	0
	Director de proiect Contract nr PD70/2022 Charge Carrier Mobility by Photo-CELIV in Organic Solar Cells based on new ternary blends, PN-III-P1-1.1-PD-2021	25



DESCRIPTORI	PUNCTAJE ACORDATE	PUNCTAJ REALIZAT
	Buget: 249.960 lei 2 membri	
	contracte naționale – membru: 50 puncte pentru fiecare 500.000 lei / numărul membrilor echipei de cercetare	
	Proiect PCE 142/15.02.2021 Titlu Proiect: Interacțiuni optice parametrice în configurație contra-propagativă pentru fonică cuantică cu stări bi-fotonice cu timp de coerență mare Buget: 1.198.018 RON 5 membri	23,96
Total proiecte:		82,29
10. Contracte de cercetare în mediul de afaceri și sectorul public	organizații internaționale: 100 puncte pentru fiecare 100.000 Euro	0
	firme multinaționale: 100 puncte pentru fiecare 100.000 Euro	0
	firme naționale: 50 puncte pentru fiecare 500.000 Euro	0
	organizații administrative naționale: 40 puncte pentru fiecare 500.000 Euro	0
	alte organizații publice de nivel național: 30 puncte pentru fiecare 500.000 Euro	0
11. Brevete	internaționale: 100 puncte / număr de autori	0
	naționale: 30 puncte / număr autori	0
12. Citări și recenzii ale lucrărilor științifice	reviste de specialitate din străinătate: (10 + 20 x factor de impact) / număr autori, pentru fiecare citare	1425,01 Vezi Anexa Citari
	reviste de specialitate din țară: (5 + 10 x factor de impact) / număr autori, pentru fiecare citare	0
	monografii academice din străinătate: 50 puncte / număr autori, pentru fiecare citare	0
	monografii academice din țară: 25 puncte / număr autori, pentru fiecare citare	0
13. Lucrări susținute în calitate de invitat la manifestări științifice (conferințe, congrese, simpozioane, seminarii și ateliere de lucru)	străinătate: 25 puncte pentru fiecare activitate	0
	țară: 10 puncte pentru fiecare activitate	0
14. Profesor/cercetător invitat la universități/institute de cercetare	străinătate: 25 puncte pentru fiecare activitate	0
	țară: 10 puncte pentru fiecare activitate	0
15. Editor/Membru în Editorial Board & Advisory Board	reviste cotate <i>Web of Science</i> : editor, 30 puncte pentru fiecare revistă; membru, 20 puncte pentru fiecare revistă	0
	reviste internaționale și alte reviste ale Universității: editor, 15 puncte pentru fiecare revistă; membru, 10 puncte pentru fiecare revistă	0
16. Premii internaționale obținute printr-un proces de selecție	100 puncte / categorie / număr persoane	0
17. Premii ale Academiei Române	50 puncte / categorie / număr persoane	0
18. Alte premii naționale ale instituțiilor culturale	20 puncte / categorie / număr persoane	0



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DESCRIPTORI	PUNCTAJE ACORDATE	PUNCTAJ REALIZAT
19. Participări la manifestări științifice	internationale: președinte comitet organizare/consiliu științific, 25 puncte pentru fiecare activitate; membru comitet organizare/consiliu științific, 15 puncte pentru fiecare activitate; moderator de panel, 15 puncte pentru fiecare activitate; raportor pe secțiuni/paneluri, 10 puncte pentru fiecare activitate	0
	naționale: președinte comitet organizare/consiliu științific, 15 puncte pentru fiecare activitate; membru comitet organizare/consiliu științific, 5 puncte pentru fiecare activitate; moderator de panel, 5 puncte pentru fiecare activitate; raportor pe secțiuni/paneluri, 2 puncte pentru fiecare activitate	0
TOTAL		1,908.47

		PUNCTAJ
1.	Articole in reviste cotate ISI Thomson Reuters	401,17
2.	Citări [A se vedea anexa, citări ISI WoS, (fără autocitări)]	1425,01
3.	Membru in proiect	82,29
Total		1,908.47

08.12.2022

ACS Dr. Laura HROȘTEA

**Anexa. Citări**

Citare			IF	Nr autori	Punctaj
1. A critical review of photovoltaic cells based on organic monomeric and polymeric thin film heterojunctions, Antohe, S; Iftimie, S; (...); Girtan, M, 2017 THIN SOLID FILMS 642 , pp.219-231					
1	2018	Structural Stability and Optical Studies of Poly(3-hexylthiophene) in an ITO/PEDOT:PSS/P3HT Interface	1.676	5	8.70
2		Ternary organic solar cells doped methoxyphenyl indenopyrazoloquinoline derivatives	2.195		10.78
3		Flexible organic heterostructures obtained by MAPLE	1.784		9.14
4		Organic heterostructures obtained on ZnO/Ag/ZnO electrode	2.515		12.06
5		Dark and photo-induced charge transport across molecular spacers	1.351		7.40
6		PROCEEDINGS OF THE ROMANIAN ACADEMY - SERIES A: AN ACCOUNT OF THE PHYSICS SECTION	1.940		9.76
7		Optical and Morphological Properties of P3HT and P3HT: PCBM Thin Films Used in Photovoltaic Applications	0.000		2.00
8	2019	Physical properties of indium zinc oxide and aluminium zinc oxide thin films deposited by radio-frequency magnetron sputtering	1.929		9.72
9		Effects of Au/PEDOT:PSS/P3HT Interface Morphology on the Electrical and Optical Properties of Poly (3-Hexylthiophene)	1.774		9.10
10		Synthesis by direct arylation reaction of photovoltaic D-pi-A polymers based on fluorene-thiophene- fragment and fluorinated benzothiadiazole derivatives	2.220		10.88
11		Photovoltaic applications: Status and manufacturing prospects	12.110		50.44
12		Combining electronic and structural features in machine learning models to predict organic solar cells properties	12.319		51.28
13		On the electrical and photo-electrical behavior of the photovoltaic cells based on polymeric and chlorophyll-a thin films	1.294		7.18
14		Nanoscale characterization of squaraine-fullerene-based photovoltaic active layers by atomic force microscopy mechanical and electrical property mapping	2.030		10.12
15	2020	On the physical and photo-electrical properties of organic photovoltaic cells based on 1,10-Phenanthroline and 5,10,15,20-Tetra(4-pyridyl)-21H,23H-porphine non-fullerene thin films	6.707		28.83
16		Structural, electrochemical and optical properties of 1,2,4-triazine derivative	2.584		12.34
17		Impact of Chalcogenophenes on Donor-Acceptor Copolymers for Bulk Heterojunction Solar Cells	2.227		10.91
18		Effects of annealing on the physical properties of ito thin films grown by radio frequency magnetron sputtering	0.963		5.85
19		Determining the sequence and backbone structure of "semi-statistical" copolymers as donor-acceptor polymers in organic solar cells	6.367		27.47
20		Toward data-enabled process optimization of deformable electronic polymer-based devices	5.163		22.65
21		On the Physical Properties PEDOT:PSS Thin Films	3.383		15.53
22		Characterization of pbdb-t-sf: fullerene blend thin films for solar cell applications	1.785		9.14
23	2021	Effect of RF Power on the Physical Properties of Sputtered ZnSe Nanostructured Thin Films for Photovoltaic Applications	5.076		22.30
24		Effects of two different solvents on Schottky barrier of organic device	0.000		2.00
25		Operating Temperature of Nonfullerene Acceptor-Based Bulk Heterojunction Organic Solar Cells	1.981		9.92
26		Application of quinoline derivatives in third-generation photovoltaics	2.478		11.91
27		Studies on the Physical Properties of TiO ₂ :Nb/Ag/TiO ₂ :Nb and NiO/Ag/NiO Three-Layer Structures on Glass and Plastic Substrates as Transparent Conductive Electrodes for Solar Cells	5.076		22.30
28		Hybrid Nanocomposite Thin Films for Photovoltaic Applications: A Review	5.076		22.30
29		Study on the effect of singlewalled carbon nanotubes on junction properties of	0.000		2.00



		Safranin -T dye-based organic device			
30		Effect of various PCBM doping on the interfacial layer of Al/PCBM:ZnO/p-Si photodiodes	2.478		11.91
31		Dielectric characterization of Al/PCBM:ZnO/p-Si structures for wide-range frequency	1.783		9.13
32		Modification of barrier height and depletion layer width of methyl red (MR) dye-based organic device in the presence of single-walled carbon nanotubes (SWCNT)	1.947		9.79
33		Electrochemical formation of photoactive organic heterojunctions. Porphyrin-C-60 polymeric photoelectrochemical cells	6.901		29.60
34	2022	Recent Advances in Hole-Transporting Layers for Organic Solar Cells	5.076		22.30
35		A review on organic photovoltaic cell	4.672		20.69
36		Organic and Polymeric Thin-Film Materials for Solar Cells: A New Open Special Issue in Materials	3.748		16.99
37		An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications	3.662		16.65
38		Study of a new composite based on SnO ₂ nanoparticles - P3HT:PC71BM co-polymer blend, used as potential absorber in bulk heterojunction photovoltaic cells	3.662		16.65
TOTAL = 537,64					
2. Oxide/metal/oxide electrodes for solar cell applications, Hrostea, L; Boclinca, M; (...); Girtan, M, Apr 2017 SOLAR ENERGY 146 , pp.464-469					
1	2018	Organic heterostructures obtained on ZnO/Ag/ZnO electrode	8.923		31.41
2		On the properties of organic heterostructures prepared with nano-patterned metallic electrode	6.182		22.27
3	2019	Effect of Carrier Diffusion on Optical Bandgap Design of Metal Oxide/Metal/Metal Oxide Multilayer	0.000		1.67
4		Effect of lithium nanosandwiching on the structural, optical and dielectric performance of MoO ₃	3.570		13.57
5		Effect of rapid and selective thermal processing (RSTP) assisted by microwave treatment on the properties of ultrathin Ag-layer-inserted dielectric multilayers for low-emissivity glass	1.376		6.25
6		Metal oxide nanoparticles and their applications in nanotechnology	0.000		1.67
7	2020	Carrier concentration dependency of plasma frequency in SiInZnO/Ag/SiInZnO transparent multilayer	2.436		9.79
8		An efficient ITO-free transparent electrode based on diamond-like carbon with an engineered intermediate metallic thin-film	5.742		20.81
9		Characterization of pbdb-t-sf: fullerene blend thin films for solar cell applications	1.785		7.62
10		First synthesis of monodispersed microparticles of copper oxide films by pulsed spray pyrolysis (PSP): structural, optical, and morphological investigations	2.584	6	10.28
11	2021	Indoor Perovskite Photovoltaics for the Internet of Things-Challenges and Opportunities toward Market Uptake	29.368		99.56
12		Studies on the Physical Properties of TiO ₂ :Nb/Ag/TiO ₂ :Nb and NiO/Ag/NiO Three-Layer Structures on Glass and Plastic Substrates as Transparent Conductive Electrodes for Solar Cells	5.076		
13		Microstructured ZnO-ZnS composite for earth-abundant photovoltaics: Elaboration, surface analysis and enhanced optical performances	5.742		20.81
14		Influence of Ag incorporation on the structural, optical and electrical properties of ITO/Ag/ITO multilayers for inorganic all-solid-state electrochromic devices	4.527		16.76
15	2022	Carbon-based materials for future photonics devices. A parallel between electronics and photonics	3.080		11.93
16		Colossal dielectric constant, electric modulus and electrical conductivity of nanocrystalline SnO ₂ : Role of Zr/Mn, Fe or Co dopants	3.498		13.33
17		Optical and electrical properties of ITO/Metal/NiO triple-layer grown by PVD method: An experimental study	4.644		17.15
18		An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications	3.662		
TOTAL = 304,86					



3. Optical and Morphological Properties of P3HT and P3HT: PCBM Thin Films Used in Photovoltaic Applications, Hrostea, L; Girtan, M; (...); Leontie, L, EUROINVENT International Conference on Innovative Research (ICIR) 2018 EUROINVENT ICIR 2018 374					
1	2020	Elucidating the impact of PbI2 on photophysical and electrical properties of poly(3-hexylthiophene)	3.927	4	22.14
2		Theoretical Study of Surface Plasmon Resonance in P3HT:PCBM/Cu Nano Film	0.913		7.07
3		Linear and Nonlinear Excitation of P3HT Induced by Spectral-Shaped Ultrafast Mid-IR Laser Radiation	4.126		23.13
4		Flexible Ion-Gated Transistors Making Use of Poly-3-hexylthiophene (P3HT): Effect of the Molecular Weight on the Effectiveness of Gating and Device Performance	1.938		12.19
5		Phase diagram of P3HT:PC70BM thin films based on variable-temperature spectroscopic ellipsometry	4.282		23.91
6		Thin-Film Tandem Organic Solar Cells With Improved Efficiency	3.367		19.34
7	2021	Space-charge accumulation and band bending at conductive P3HT/PDIF-CN2 interfaces investigated by scanning-Kelvin probe microscopy	7.393		39.47
8		Advances in applying C-H functionalization and naturally sourced building blocks in organic semiconductor synthesis	7.393		39.47
9		Towards high spatial resolution tissue-equivalent dosimetry for microbeam radiation therapy using organic semiconductors	2.616		15.58
10		The effect of silver nanowires on the formation of aggregates of poly(3-hexylthiophene) in films deposited on reduced graphene oxide	2.253		13.77
11		Impact of P3HT Regioregularity and Molecular Weight on the Efficiency and Stability of Perovskite Solar Cells	8.198		43.49
12	2022	Modulation of optical, photophysical and electrical properties of poly(3-hexylthiophene) via Gd:CdS nanoparticles	2.840		16.70
13		Synthesis of Highly Conductive Poly(3-hexylthiophene) by Chemical Oxidative Polymerization Using Surfactant Templates	4.967		27.34
14		Photocurrent diffusion of organic photodetector between pixels for fingerprint sensor by using interdigitated electrodes	1.491		9.96
15		An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications	3.662		
16		Controlling of Hysteresis by Varying ZnO-Nanoparticles Amount in P3HT:ZnO Hybrid Thin-Film Transistor: Modeling	2.047		12.74
TOTAL = 326,26					
4. Study of oxide/metal/oxide thin films for transparent electronics and solar cells applications by spectroscopic ellipsometry, Girtan, M; Hrostea, L; (...); Negulescu, B, 2017 AIMS MATERIALS SCIENCE 4 (3) , pp.594-613					
1	2018	Characterization of weakly absorbing thin films by multiple linear regression analysis of absolute unwrapped phase in angle-resolved spectral reflectometry	3.561	4	20.31
2		Future solar energy devices	0.000		2.50
3		Optical and Morphological Properties of P3HT and P3HT: PCBM Thin Films Used in Photovoltaic Applications	0.000		
4	2019	N-2(+) ion bombardment effect on the band gap of anatase TiO2 ultrathin films	2.779		16.40
5	2020	Modulation of photoelectric properties of indium tin oxide thin films via oxygen control, and its application to epsilon-near-zero properties for an infrared absorber	2.546		15.23
6		On the Electrical and Optical Properties Stability of P3HT Thin Films Sensitized with Nitromethane Ferric Chloride Solutions	2.881		
7		On the Physical Properties PEDOT:PSS Thin Films	3.383		19.42
8		Characterization of pbdb-t-sf: fullerene blend thin films for solar cell applications	1.785		
9	2021	Studies on the Physical Properties of TiO2:Nb/Ag/TiO2:Nb and NiO/Ag/NiO Three-Layer Structures on Glass and Plastic Substrates as Transparent Conductive Electrodes for Solar Cells	5.076		
10		Synthesis and characterization of bismite nano-island thin films for optoelectronic applications	3.927		22.14
11	2022	Carbon-based materials for future photonics devices. A parallel between electronics and photonics	3.754		21.27



12		Correlation between optical and structural properties of nitrogen doped anatase TiO2 thin films	3.754		21.27
13		An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications	3.662		
	TOTAL = 138,52				
	5. On the Electrical and Optical Properties Stability of P3HT Thin Films Sensitized with Nitromethane Ferric Chloride Solutions, Hrostea, L; Leontie, L; (...); Girtan, M, Nov 2020 COATINGS 10 (11)				
1	2021	Extinction, absorption, and scattering of light by plasmonic spheres embedded in an absorbing host medium	3.676	5	16.70
2	2022	Studies on the Doping Mechanism of Conjugated Thienothiophene Polymer/MWCNT Hybrids for Thermoelectric Application	4.367		19.47
3		Extinction and scattering of light by nonspherical plasmonic particles in absorbing media	2.342		11.37
4		Surface Treatment of Metals	3.236		14.94
5		Modulation of optical, photophysical and electrical properties of poly(3-hexylthiophene) via Gd:CdS nanoparticles	2.840		13.36
6		An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications	3.662		
	TOTAL = 75,84				
	6. Studies on the Physical Properties of TiO2:Nb/Ag/TiO2:Nb and NiO/Ag/NiO Three-Layer Structures on Glass and Plastic Substrates as Transparent Conductive Electrodes for Solar Cells, Hrostea, L; Lisnic, P; (...); Girtan, M, Jun 2021 NANOMATERIALS 11 (6)				
1	2022	Carbon-based materials for future photonics devices. A parallel between electronics and photonics	3.754	5	17.02
2		Advances in Nanomaterials for Photovoltaic Applications	5.719		24.88
3		An extensive XPS analysis on sensitized PBDB-T-SF thin films for photovoltaic applications	3.662		
	TOTAL = 41,89				
	Total punctaj citari				1425,01

08.12.2022

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