



## ANEXA 2

## STANDARDE MINIMALE ALE UNIVERSITĂȚII

FACULTATEA	FUNȚIA DIDACTICĂ: Lector Universitar/Sef Lucrari/CS III
Fizică	<p>Îndeplinirea standardelor minime obligatorii stabilite de comisia Fizica din cadrul CNATDCU:</p> <p><b>1. <math>I^* \geq 1</math>; <math>P^* \geq 1</math></b></p> <p><b>2. Membru în echipa unui proiect de cercetare câștigat prin competiție națională sau internațională</b></p> <p><i>*I si P sunt definite conform metodologiei CNATDCU (M.O. 890.27.12.2012), P fiind suma scorurilor de influenta a tuturor articolelor publicate ca autor principal sau corespondent iar I suma scorurilor de influenta ale tuturor articolelor impartita la numarul de autori efectivi.</i></p>

Îndeplinirea standardelor minime obligatorii stabilite de comisia Fizică din cadrul CNATDCU precum și a celor adiționale (condiții interne UAIC):

		Condiție MINIMĂ	REALIZAT
		Indicator	Indicator
Activitatea de cercetare (A1)	1.1 Factor de impact cumulat din articole publicate în reviste cotate ISI Web of Science (I)	$I \geq 1$	<b>I=4.18</b>
	1.2 Articole în reviste cotate ISI Web of Science ca autor principal/corespondent (P)	$P \geq 1$	<b>P=7</b>
	1.3 Granturi/Proiecte castigate prin competiție	1 (membru)	<b>1 (membru/responsabil)</b>



Lista explicită a indicatorilor realizați pentru fiecare activitate **A1** (1.1., 1.2 și 1.3):

### 1.1: Articole în reviste ISI Web of Science

Titlul articolului	Autorii articolului/ $n_i^{ef}$	$a_i$	$a_i/n_i^{ef}$
<b><i>Epitaxial growth of Au on Ge(001) surface: Photoelectron spectroscopy measurements and first-principles calculations</i></b> , Thin Solid Films 552, 241-249 (2014)	D.G. Popescu, M.A. Husanu	0.456	0.228
<b><i>Nanomechanical characterization of bioglass films synthesized by magnetron sputtering</i></b> , Thin Solid Films 553, 166-172 (2014)	A.C. Popa, V.M.F. Marquez, G.E. Stan, M.A. Husanu, A.C. Galca, C. Ghica, D.U Tulyaganov, A.F. Lemos, J.M.F. Ferreira	0.456	0.072
<b><i>The role of ambient gas and pressure on the structuring of hard diamond-like carbon films synthesized by pulsed laser deposition</i></b> , Materials 8, 3284-3305 (2015)	<a href="#">Popescu, A.C.</a> , <a href="#">Stan, G.E.</a> , Duta, L., <a href="#">Nita, C.</a> , <a href="#">Popescu, C.</a> , <a href="#">Surdu, V.-A.</a> , <a href="#">Husanu, M.-A.</a> , <a href="#">Bita, B.</a> , <a href="#">Ghisleni, R.</a> , <a href="#">Himcinschi, C.</a> , Craciun, V.	0.77	0.11
<b><i>Spectro-microscopic photoemission evidence of charge uncompensated areas in Pb(Zr,Ti)O<sub>3</sub>(001) layers</i></b> , Phys. Chem. Chem. Phys. 17, 509 (2015)	D.G. Popescu, M.A. Husanu, L. Trupina, L. Hrib, L. Pintilie, A. Barinov, S. Lizzit, P. Lacovig, C.M. Teodorescu	1.184	0.187
<b><i>Surface topography to reflectivity mapping in two-dimensional photonic crystals designed in germanium</i></b> , Applied Surface Science 355, 1186-1191 (2015)	M.A. Husanu, C.P. Ganea, I. Anghel, C. Florica, O. Rasoga, D.G. Popescu	0.55	0.103
<b><i>Influence of hole depletion and depolarizing field on the BaTiO<sub>3</sub>/La<sub>0.6</sub>Sr<sub>0.4</sub>MnO<sub>3</sub> interface electronic structure revealed by photoelectron spectroscopy and first-principles calculations</i></b> , Phys. Rev. B 92, 235442 (2015)	D.G. Popescu, N. Barrett, C.Chirila, I. Pasuk, M.A. Husanu	1.331	0.266
<b><i>Dimensionality-driven metal-insulator-transition in spin-orbit coupled SrIrO<sub>3</sub></i></b> , Phys. Rev. Lett. 119, 256404 (2017)	P. Schütz, D. Di Sante, L. Dudy, J. Gabel, M. Stübinger, M. Kamp, Y. Huang, M. Capone, M.-A. Husanu, V. Strocov, G. Sangiovanni, M. Sing, R. Claessen	3.226	0.358
<b><i>Discovery of Lorentz-violating Weyl fermion semimetal state in LaAlGe materials</i></b> , Science Advances, 3(6), e1603266 (2017)	Su-Yang Xu, Nasser Alidoust, Guoqing Chang, Hong Lu, Bahadur Singh, Ilya Belopolski, Daniel Sanchez, Xiao Zhang, Guang Bian, Hao Zheng, Marius-Adrian Husanu, Yi Bian, Shin-Ming Huang, Chuang-Han Hsu, Tay-Rong Chang,	5.413	0.416



	Horng-Tay Jeng, Arun Bansil, Vladimir N. Strocov, Hsin Lin, Shuang Jia, M. Zahid Hasan		
<b><i>k-space imaging of anisotropic 2D electron gas in GaN/GaN high-electron-mobility transistor heterostructures, Nature Commun 9, 2653 (2018)</i></b>	L. L. Lev, I. O. Maiboroda, M.-A. Husanu, E. S. Grichuk, N. K. Chumakov, I. S. Ezubchenko, I. A. Chernykh, X. Wang, B. Tobler, T. Schmitt, M. L. Zanaveskin, V. G. Valeyev & V. N. Strocov	5.684	0.632
<b><i>Orbital Ordering of the Mobile and Localized Electrons at Oxygen-Deficient LaAlO<sub>3</sub>/SrTiO<sub>3</sub> Interfaces, ACS Nano, 12(8), 7927–7935 (2018)</i></b>	A. Chikina, F. Lechermann, M.A. Husanu, M.Caputo, C. Cancellieri , X. Wang, T.Schmitt, M. Radovic, and V. N. Strocov	4.045	0.578
<b><i>Electronic band structure of the buried SiO<sub>2</sub>/SiC interface investigated by soft x-ray ARPES, Appl. Phys. Lett. 110, 132101 (2017)</i></b>	J. Woerle1, F. Bisti, M.-A. Husanu, V. N. Strocov, C. W. Schneider, H. Sigg, J. Gobrecht, U. Grossner, and M. Camarda	0.969	0.138
<b><i>Double Band Inversion in <math>\alpha</math>-Sn: Appearance of Topological Surface States and the Role of Orbital Composition, Phys. Rev. B 95, 161117(R) (2017)</i></b>	Victor A. Rogalev, Tomáš Rauch, Markus R. Scholz, Felix Reis, Lenart Dudy, Andrzej Fleszar, Marius-Adrian Husanu, Vladimir N. Strocov, Jürgen Henk, Ingrid Mertig, Jörg Schäfer, and Ralph Claessen	1.227	0.144
<b><i>Spectroscopic perspective on the interplay between electronic and magnetic properties of magnetically doped topological insulators, Phys. Rev. B 96, 184402 (2017)</i></b>	J. A. Krieger, Cui-Zu Chang, M.-A. Husanu, D. Sostina, A. Ernst, M. M. Otrokov, T. Prokscha, T. Schmitt, A. Suter, M. G. Vergniory, E. V. Chulkov, J. S. Moodera, V. N. Strocov, and Z. Salman	1.227	0.129
<b><i>Optimized silicon reinforcement of carbon coatings by pulsed laser technique for superior functional biomedical surfaces fabrication, Biofabrication, 9(2), 025029 (2017)</i></b>	I N Mihailescu, D Bociaga2, G Popescu-Pelin, G E Stan, L Duta, G Socol, M C Chifiriuc, C Bleotu, V Lazar, M A Husanu, I Zgura, F Miculescu, I Negut and C Hapenciuc	1.342	0.141
<b><i>Bioglass implant-coating interactions in synthetic physiological fluids with varying degrees of biomimicry, Int. J. Nanomedicine, 12, 683 (2017)</i></b>	A. C. Popa; G. E. Stan; M.A. Husanu; I. Mercioniu; Santos, L. F.; Fernandes, H. R.; Ferreira, J. M. F.	0.983	0.156
<b><i>Impact on Ferroelectricity and Band Alignment of Gradually Grown Au on BaTiO<sub>3</sub>, Phys. Status Solidi – RRL, 13(7), 1900077 (2019)</i></b>	Popescu, D. G. ; Husanu, M. A. ; Chirila, C.; Pintilie, L. ; Teodorescu, C. M	0.679	0.136
<b><i>Probing single-unit-cell resolved electronic structure modulations in oxide superlattices with standing-wave photoemission, Phys. Rev. B 100(12), 125119 (2019)</i></b>	Yang, W. ; Chandrasena, R. U. ; Gu, M. ; dos Reis, R. M. S. ; Moon, E. J. ; Arab, Arian ; Husanu, M-A ; Nemsak, S. ; Gullikson, E. M. ; Ciston, J. ; Strocov, V. N. ; Rondinelli, J. M. ; May, S. J. ; Gray, A. X,	1.018	0.102
<b><i>Electronic phase separation at LaAlO<sub>3</sub>/SrTiO<sub>3</sub> interfaces tunable by oxygen deficiency, Phys. Rev. Mater. 3(10), 106001 (2019)</i></b>	Strocov, V. N. ; Chikina, A. ; Caputo, M. ; Husanu, M-A ; Bisti, F. ; Bracher, D. ; Schmitt, T. ; Granozio, F. Miletto ; Vaz, C. A. F. ; Lechermann, F	1.154	0.154
<b><i>Polarization-dependent magnetism of the Ni/BaTiO<sub>3</sub> interface, Phys.</i></b>	Bocirnea, A. E. ; Popescu, D. G. ; Chirila, C. ; Costescu, R. M. ; Kuncser, V ; Stancu, V ;	1.154	0.153



Rev. Mater. 4(3), 034402 (2020)	Trupina, L. ; Pasuk, I ; Vlaicu, A. M. ; Husanu, M. A,		
<b>Electron-polaron dichotomy of charge carriers in perovskite oxides, Communications Physics 3 (1), 62 (2020)</b>	Husanu, M-A ; Vistoli, L. ; Verdi, C. ; Sander, A. ; Garcia, V ; Rault, J. ; Bisti, F. ; Lev, L. L. ; Schmitt, T. ; Giustino, F. ; Mishchenko, A. S. ; Bibes, M. ; Strocov, V. N,	1.96	0.21

$$I = \sum_i a_i = 4.18$$

## 1.2: Articole în reviste ISI Web of Science ca autor principal

Nr.	Titlul articolului	Autorii articolului	$a_i$
1	<i>Resonant Raman scattering and absorption spectroscopy studies on individual carbon nanotubes in surfactant solutions, Journal of Optoelectronics and Advanced Materials, 10(7),1722-1726, (2008)</i>	Husanu, M; Baibarac, M; Preda, N, Baltog	0.113
2	<i>Particular signature of isolated and bundled carbon nanotubes in their Raman spectra, Romanian Reports In Physics, 60(3), 691-699, (2008)</i>	Husanu, M; Baibarac, M; Baltog, I	0.095
3	<i>Non-Covalent Functionalization Of Carbon Nanotubes: Experimental Evidence For Isolated And Bundled Tubes, Physica E, 41(1) ,66-69, (2008)</i>	Husanu, M; Baibarac, M; Baltog	0.384
4	<i>Electron-Phonon Interaction In Zinc Oxide. Plasmon-Optical Phonon Coupled Modes, Physica Status Solidi B,246(1), 87-91, (2009)</i>	M.A. Husanu	0.456
5	<i>Absorption And Luminescence Properties Of C70 Aggregates In Solvent Mixtures, Romanian Journal of Physics, 54(5-6), 529-538, (2009)</i>	Husanu AM,Baltog I, Baibarac M, Preda N, Mihut L, Velula T, Bucur C	0.095
6	<i>Au-Ge bonding on uniformly Au-covered Ge(001) surface, Phys. Status Solidi-Rapid Res. Lett. 7, 274-277 (2013)</i>	D.G. Popescu, M.A. Husanu	0.875
7	<i>Epitaxial growth of Au on Ge(001) surface: Photoelectron spectroscopy measurements and first-principles calculations, Thin Solid Films 552, 241-249 (2014)</i>	D.G. Popescu, M.A. Husanu	0.456
8	<i>Influence of hole depletion and depolarizing field on the BaTiO3/La0.6Sr0.4MnO3 interface electronic structure revealed by photoelectron spectroscopy and first-principles calculations, Phys. Rev. B. 92, 235442(2015)</i>	D.G. Popescu, N. Barrett, C.Chirila, I. Pasuk, M.A. Husanu	1.228
9	<i>Correlation of optical reflectivity with numerical calculations for a two-dimensional photonic crystal designed in Ge, Eur. Phys. J. D 69, 273 (2015)</i>	M.A. Husanu, D.G. Popescu, C.P. Ganea, I. Anghel, C. Florica	0.454
10	<i>Surface topography to reflectivity mapping in</i>	M.A. Husanu, C.P. Ganea, I. Anghel, C. Florica, O. Rasoga,	0.55



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	<i>two-dimensional photonic crystals designed in germanium, Appl. Surf. Sci. 355, 1186-1191 (2015)</i>	D.G. Popescu	
11	<i>Photoelectron spectroscopy and spectro-microscopy of Pb(Zr,Ti)O-3 (111) thin layers: Imaging ferroelectric domains with binding energy contrast, Applied Surface Science 352, 73-81 (2015)</i>	M.A. Husanu, D.G. Popescu, C.A. Tache, N.G. Apostol, A. Barinov, S. Lizzit, P. Lacovig, C.M. Teodorescu	0.55
12	<i>Electron-polaron dichotomy of charge carriers in perovskite oxides, Communications Physics 3 (1), 62 (2020)</i>	Husanu, M-A ; Vistoli, L. ; Verdi, C. ; Sander, A. ; Garcia, V ; Rault, J. ; Bisti, F. ; Lev, L. L. ; Schmitt, T. ; Giustino, F. ; Mishchenko, A. S. ; Bibes, M. ; Strocov, V. N,	1.96

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$P = \sum_i a_i = 7.216$

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### 1.3 Granturi/Proiecte castigate prin competiție

1) *Ultrafast laser Facility with Optimized high order harmonics UltraViolet sources (UFOUV)*: Institutul National de Cercetare-Dezvoltare pentru Fizica Plasmei, Laserilor si Radiatiei – INFLPR Bucuresti, PN 1/2012, 2012-2015 (Membru/Responsabil)

**Dr. Marius-Adrian Hușanu**  
Marius Husanu