

## Listă lucrări

Candidat **dr. Mihai Sebastian GABOR**, înscris la concursul pentru ocuparea postului de **Conferențiar** la Facultatea de Ingineria Materialelor și a Mediului Departamentul de Fizică și Chimie, poziția 13.

### I. Listă 10 articole ISI relevante:

- [1] M. S. Gabor, T. Petrisor, Jr., C. Tiusan, M. Hehn, and T. Petrisor, "Magnetic and structural anisotropies of Co<sub>2</sub>FeAl Heusler alloy epitaxial thin films", *Physical Review B*, 84, 134413, 2011, 10.1103/PhysRevB.84.134413, - Q1
- [2] Belmeguenai, H. Tuzcuoglu, M. S. Gabor, T. Petrisor, Jr., C. Tiusan, D. Berling, F. Zighem, T. Chauveau, S. M. Chérif, and P. Moch, "Co<sub>2</sub>FeAl thin films grown on MgO substrates: Correlation between static, dynamic, and structural properties", *Physical Review B*, 87, 184431, 2013, 10.1103/PhysRevB.87.184431, - Q1
- [3] Gabor, M. S. and Petrisor, T. and Tiusan, C. and Petrisor, T, "Perpendicular magnetic anisotropy in Ta/Co<sub>2</sub>FeAl/MgO multilayers", *Journal of Applied Physics*, 114, 63905, 2013, 10.1063/1.4818326, - Q1
- [4] M.S. Gabor, C. Tiusan, T. Petrisor Jr., T. Petrisor, M. Hehn, Y. Lu, E. Snoeck,, "Structural defects analysis versus spin polarized tunneling in Co<sub>2</sub>FeAl/MgO/CoFe magnetic tunnel junctions with thick MgO barriers", *Journal of Magnetism and Magnetic Materials*, 347, 79, 2013, 10.1016/j.jmmm.2013.07.028, - Q2
- [5] A. A. Stashkevich, M. Belmeguenai, Y. Roussigné, S. M. Cherif, M. Kostylev, M. Gabor, D. Lacour, C. Tiusan, and M. Hehn, "Experimental study of spin-wave dispersion in Py/Pt film structures in the presence of an interface Dzyaloshinskii-Moriya interaction", *Physical Review B*, 91, 214409, 2015, 10.1103/PhysRevB.91.214409, - Q1
- [6] M. S. Gabor, M. Belmeguenai, T. Petrisor, C. Ulhaq-Bouillet, S. Colis, and C. Tiusan, "Correlations between structural, electronic transport, and magnetic properties of Co<sub>2</sub>FeAl<sub>0.5</sub>Si<sub>0.5</sub> Heusler alloy epitaxial thin films", *Physical Review B*, 92, 54433, 2015, 10.1103/PhysRevB.92.054433, - Q1

- [7] M. S. Gabor, J. T. Petrisor, R. B. Mos, A. Mesaros, M. Nasui, M. Belmeguenai, F. Zighem, and C. Tiusan, "Spin-orbit torques and magnetization switching in W/Co<sub>2</sub>FeAl/MgO structures", *Journal of Physics D-Applied Physics*, 49, 365003, 2016, 10.1088/0022-3727/49/36/365003, - Q2
- [8] MS Gabor, T Petrisor Jr, RB Mos, M Nasui, C Tiusan, T Petrisor, "Interlayer exchange coupling in perpendicularly magnetized Pt/Co/Ir/Co/Pt structures", *Journal of Physics D-Applied Physics*, 50, 465004, 2017, 10.1088/1361-6463/aa8ece, - Q2
- [9] M. Belmeguenai, Y. Roussigné, H. Bouloussa, S. M. Chérif, A. Stashkevich, M. Nasui, M. S. Gabor, A. Mora-Hernández, B. Nicholson, O.-O. Inyang, A. T. Hindmarch, L. Bouchenoire, "Thickness Dependence of the Dzyaloshinskii-Moriya Interaction in Co<sub>2</sub>FeAl Ultrathin Films: Effects of Annealing Temperature and Heavy-Metal Material", *Physical Review Applied*, 9, 44044, 2018, 10.1103/PhysRevApplied.9.044044, - Q1
- [10] W Akhtar, A Hrabec, S Chouaieb, A Haykal, Il Gross, M Belmeguenai, MS Gabor, B Shields, P Maletinsky, A Thiaville, S Rohart, V Jacques, "Current-Induced Nucleation and Dynamics of Skyrmions in a Co -based Heusler Alloy", *Physical Review Applied*, 11, 34066, 2019, 10.1103/PhysRevApplied.11.034066, - Q1

## II. Listă completă articole ISI:

- [1] W Akhtar, A Hrabec, Saddem Chouaieb, Angela Haykal, Isabell Gross, M Belmeguenai, MS Gabor, B Shields, P Maletinsky, A Thiaville, S Rohart, Vincent Jacques, "Current-Induced Nucleation and Dynamics of Skyrmions in a Co -based Heusler Alloy", *Physical Review Applied*, 11, 34066, 2019, 10.1103/PhysRevApplied.11.034066, - Q1
- [2] Belmeguenai, M., Y. Roussigne, S. M. Cherif, A. Stashkevich, T. Petrisor, M. Nasui and M. S. Gabor, "Influence of the capping layer material on the interfacial Dzyaloshinskii-Moriya interaction in Pt/Co/capping layer structures probed by Brillouin light scattering", *Journal of Physics D-Applied Physics*, 52, 125002, 2019, 10.1088/1361-6463/aafdf5, - Q2
- [3] Laura Piperno, Achille Angrisani Armenio, Angelo Vannozzi, Valentina Galluzzi, Valentina Pinto, Francesco Rizzo, Andrea Augieri, Antonella Mancini, Alessandro Rufoloni, Giuseppe Celentano, Ramona B Mos, Lelia Ciontea, Mircea Nasui, Mihai Gabor, Trajan Petrisor, Giovanni Sotgiu, "Surface Decoration as a Prospective Artificial Pinning Strategy in Superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> Films", *IEEE Transactions on Applied Superconductivity*, 28, 6601405, 2018, 10.1109/tasc.2018.2804092, - Q3
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- [5] M Belmeguenai, K Aitoukaci, F Zighem, MS Gabor, T Petrisor Jr, RB Mos, C Tiusan, "Investigation of the annealing temperature dependence of the spin pumping in Co<sub>20</sub>Fe<sub>60</sub>B<sub>20</sub>/Pt systems", *Journal of Applied Physics*, 123, 113905, 2018, 10.1063/1.5011111, - Q2
- [6] T Petrișor Jr, A Meledin, A Boulle, RB Moș, MS Gabor, L Ciontea, T Petrișor, "Ordered misfit dislocations in epitaxial Gd doped CeO<sub>2</sub> thin films deposited on (001)YSZ single crystal substrates", *Applied Surface Science*, 433, 668, 2018, 10.1016/j.apusc.2017.09.202, - Q1
- [7] M. Belmeguenai, M. S. Gabor, Y. Roussigné, T. Petrisor, Jr., R. B. Mos, A. Stashkevich, S. M. Chérif, C. Tiusan, "Interfacial Dzyaloshinskii-Moriya interaction sign in Ir/Co<sub>2</sub>FeAl systems investigated by Brillouin light scattering", *Physical Review B*, 97, 054425, 2018, 10.1103/PhysRevB.97.054425, - Q2
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- [11] M Belmeguenai, H Bouloussa, Y Roussigné, MS Gabor, T Petrisor Jr, C Tiusan, H Yang, A Stashkevich, SM Chérif, "Interface Dzyaloshinskii-Moriya interaction in the interlayer antiferromagnetic-exchange coupled Pt/CoFeB/Ru/CoFeB systems", *Physical Review B*, 96, 144402, 2017, 10.1103/PhysRevB.96.144402, - Q2
- [12] M Nasui, RB Mos, MS Gabor, T Petrisor Jr, A Tomolea, E Ware, F Goga, A Mesaros, L Ciontea, "New versatile synthesis for low dimension superparamagnetic YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> nanoparticles", *Ceramics International*, 43, 8845, 2017, 10.1016/j.ceramint.2017.04.018, - Q1
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- [17] T. Dippong, E. A. Levei, C. Tanaselia, M. Gabor, M. Nasui, L. Barbu Tudoran, and G. Borod, "Magnetic properties evolution of the Co<sub>x</sub>Fe<sub>3-x</sub>O<sub>4</sub>/SiO<sub>2</sub> system due to advanced thermal treatment at 700 degrees C and 1000 degrees C", *Journal of Magnetism and Magnetic Materials*, 410, 47, 2016, 10.1016/j.jmmm.2016.03.020, - Q2
- [18] M. Gueye, F. Zighem, M. Belmeguenai, M. Gabor, C. Tiusan, and D. Faurie, "Ferromagnetic resonance in thin films submitted to multiaxial stress state: application of the uniaxial equivalent stress concept and experimental validation", *Journal of Physics D-Applied Physics*, 49, 265001, 2016, 10.1088/0022-3727/49/26/265001, - Q2
- [19] R. B. Mos, T. Petrisor, M. Nasui, A. Mesaros, M. S. Gabor, M. Senila, E. Ware, and L. Ciontea, "Epitaxial La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> nanostructures obtained by polymer-assisted surface decoration (PASD)", *Materials Letters*, 171, 281, 2016, 10.1016/j.matlet.2016.02.122, - Q2
- [20] M. Belmeguenai, M. S. Gabor, Y. Roussigné, A. Stashkevich, S. M. Chérif, F. Zighem, and C. Tiusan, "Brillouin light scattering investigation of the thickness dependence of Dzyaloshinskii-Moriya interaction in Co<sub>0.5</sub>Fe<sub>0.5</sub> ultrathin films", *Physical Review B*, 93, 174407, , 10.1103/PhysRevB.93.174407, - Q2
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- [26] Gueye, M. and Zighem, F. and Belmeguenai, M. and Gabor, M. S. and Tiusan, C. and Faurie, "Effective 90-degree magnetization rotation in Co<sub>2</sub>FeAl thin film/piezoelectric system probed by microstripline ferromagnetic resonance", *Applied Physics Letters*, 107, 32908, 2015, 10.1063/1.4927308, - Q1
- [27] A. A. Stashkevich, M. Belmeguenai, Y. Roussigné, S. M. Cherif, M. Kostylev, M. Gabor, D. Lacour, C. Tiusan, and M. Hehn, "Experimental study of spin-wave dispersion in Py/Pt film structures in the presence of an interface Dzyaloshinskii-Moriya interaction", *Physical Review B*, 91, 214409, 2015, 10.1103/PhysRevB.91.214409, - Q1
- [28] Belmeguenai, M. and Gabor, M. S. and Petrisor, T. and Zighem, F. and Chérif, S. M. and Tiusan, "Capping layer-tailored interface magnetic anisotropy in ultrathin Co<sub>2</sub>FeAl films", *Journal of Applied Physics*, 117, 23906, 2015, 10.1063/1.4905688, - Q2
- [29] M. Belmeguenai, H. Tuzcuoglu, M. Gabor, T. Petrisor, C. Tiusan, D. Berling, F. Zighem, S.M. Chérif, "Magnetic and structural properties of Co<sub>2</sub>FeAl thin films grown on Si substrate", *Journal of Magnetism and Magnetic Materials*, 373, 140, 2015, 10.1016/j.jmmm.2014.02.014, - Q2
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- [31] Gueye, M. and Wague, B. M. and Zighem, F. and Belmeguenai, M. and Gabor, M. S. and Petrisor, T. and Tiusan, C. and Mercone, S. and Faurie, D, "Bending strain-tunable magnetic anisotropy in Co<sub>2</sub>FeAl Heusler thin film on Kapton (R)", *Applied Physics Letters*, 105, 62409, 2014, 10.1063/1.4893157, - Q1
- [32] T. Petrisor Jr., R. B. Mos, M. Nasui, M. S. Gabor, A. Augieri, G. Celentano, D. De Felicis, E. Bemporad, L. Ciontea, T. Petrisor, "The Vortex Path Model Analysis of the Field Angle Dependence of the Critical Current Density in Nanocomposite YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub>-BaZrO<sub>3</sub> Films Obtained by Low Fluorine Chemical Solution Deposition", *Journal of Superconductivity and Novel Magnetism*, 27, 2493, 2014, 10.1007/s10948-014-2712-z, - Q4
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- [37] M. Popa, A. Mesaros, R.A. Mereu, R. Suciu, B.S. Vasile, M.S. Gabor, L. Ciontea, T. Petrisor, "Optical properties correlated with morphology and structure of TEAH modified ZnO nanoparticles via precipitation method", *Journal of Alloys and Compounds*, 574, 255, 2013, 10.1016/j.jallcom.2013.04.078, - Q1
- [38] R.A. Mereu, A. Mesaros, M. Vasilescu, M. Popa, M.S. Gabor, L. Ciontea, T. Petrisor, "Synthesis and characterization of undoped, Al and/or Ho doped ZnO thin Films", *Ceramics International*, 39, 5535, 2013, 10.1016/j.ceramint.2012.12.067, - Q1
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- [40] R.B. Mos, T. Petrisor Jr., M.S. Gabor, A. Mancini, A. Rufoloni, G. Celentano, A. Falqui, A. Genovese, R. Ruffilli, L. Ciontea, T. Petrisor, "Epitaxial growth and characterization of La<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub> multilayers on biaxially textured NiW substrate by chemical solution deposition under highly reducing conditions", *Thin Solid Films*, 531, 491, 2013, 10.1016/j.tsf.2013.01.099, - Q2
- [41] V. Saracut, M. Giloan, M. Gabor, S. Astilean, and C. Farcau, "Polarization-Sensitive Linear Plasmonic Nanostructures via Colloidal Lithography with Uniaxial Colloidal Arrays", *ACS Applied Materials & Interfaces*, 5, 1362, 2013, 10.1021/am3026745, - Q1
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- [51] M. S. Gabor, T. Petrisor, Jr., C. Tiusan, M. Hehn, and T. Petrisor, "Magnetic and structural anisotropies of Co<sub>2</sub>FeAl Heusler alloy epitaxial thin films", *Physical Review B*, 84, 134413, 2011, 10.1103/PhysRevB.84.134413, - Q1
- [52] Petrisor, T. and Gabor, M. S. and Boulle, A. and Bellouard, C. and Tiusan, C. and Pana, O. and Petrisor, T., "Oxygen incorporation effects in annealed epitaxial La(1-x)Sr<sub>x</sub>MnO<sub>3</sub> thin films", *Journal of Applied Physics*, 109, 123913, 2011, 10.1063/1.3596807, - Q2
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### **III. Prezentări orale la conferințe:**

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#### **VI. Teza de doctorat:**

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