

Titlu proiect: HISTEREZIS ȘI COMUTARE ÎN STRUCTURI MAGNETICE EXOTICE NANOMETRICE ȘI MOLECULARE (EXOTIC)

Categoria de proiect: IDEI COD 0794

Contractul de finanțare: 185- 01/01/2012 - 31/12/2016

Manager proiect: STANCU ALEXANDRU

Lista rezultate

Nr. crt.	NUME AUTORI	TITLUL ARTICOLULUI/ CĂRȚII / COMUNICĂRII ȘTIINȚIFICE	REVISTA / VOLUMUL/EDITURA IN CARE A APARUT / CONFERINȚA LA CARE S-A COMUNICAT	ANUL PUBLICĂRII/ COMUNICĂRII
ARTICOLE ISI SI ALTE BAZE DE DATE				
1	Ursachi Irina - Stancu Alexandru - Vasile Aurelia	Magnetic α -Fe ₂ O ₃ /MCM-41 nanocomposites: Preparation, characterization, and catalytic activity for methylene blue degradation	JOURNAL OF COLLOID AND INTERFACE SCIENCE	2012
2	Dobrota Costin-Ionut - Stancu Alexandru	PKP simulation of size effect on interaction field distribution in highly ordered ferromagnetic nanowire arrays	PHYSICA B- CONDENSED MATTER	2012
3	Markou A - Panagiotopoulos I - Bakas T - Postolache Petronel - Stoleriu Laurentiu - Stancu Alexandru	Magnetization reversal in graded anisotropy Co/Pt multilayers: A first order reversal curve study	JOURNAL OF APPLIED PHYSICS	2012
4	Oniciuc Eugen - Stoleriu Laurentiu - Stancu Alexandru	THE EFFECT OF POLARIZED CURRENTS ON THE CRITICAL CURVE OF SINGLE-DOMAIN PARTICLES WITH QUARTIC CRYSTALLINE ANISOTROPY	SPIN	2012
5	Oniciuc Eugen - Stoleriu Laurentiu - Stancu Alexandru	Landau-Lifshitz-Bloch- Slonczewski simulations of the spin-transfer-torque driven magnetization switching assisted by Joule heating	APPLIED PHYSICS LETTERS	2013
6	Lungu Alin - Stancu Alexandru	Linear/Nonlinear Regime Limit in AC/DC Magnetic Field Measurements	IEEE TRANSACTIONS ON MAGNETICS	2013
7	Dobrota Costin-Ionut - Stancu Alexandru	Mean field model for ferromagnetic nanowire arrays based on a mechanical analogy	JOURNAL OF PHYSICS- CONDENSED MATTER	2013
8	Dobrota Costin-Ionut - Stancu Alexandru	What does a first-order reversal curve diagram really mean? A study case: Array of ferromagnetic nanowires	JOURNAL OF APPLIED PHYSICS	2013
9	Cimpoesu Dorin, Ding Junjia, Stoleriu Laurentiu, Adeyeye Adekunle, Stancu Alexandru, Spinu Leonard	Angular resonant absorption curves in magnetic nanowire arrays	APPLIED PHYSICS LETTERS	2013

10	Markou A., Beltsios K.G., Gergidis L.N., Panagiotopoulos I., Bakas T., Ellinas K., Tserepi A., Stoleriu Laurentiu, Tanasa Radu, Stancu Alexandru	Magnetization reversal in triangular Li(o)-FePt nanoislands	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS	2013
11	Dumitru Ioan - Astefanoaei Iordana - Stancu Alexandru	Thermal stress dependence of magnetic hysteretic processes in core-shell nanoparticles	MATERIALS SCIENCE AND ENGINEERING B- ADVANCED FUNCTIONAL SOLID- STATE MATERIALS	2013
12	Cimpoesu Dorin - Stoleriu Laurentiu - Stancu Alexandru	Generalized Stoner- Wohlfarth model accurately describing the switching processes in pseudo-single ferromagnetic particles	JOURNAL OF APPLIED PHYSICS	2013
13	Oniciuc Eugen - Stoleriu Laurentiu - Stancu Alexandru	LLB simulation of the temperature dependent switching critical curve of a Stoner-Wohlfarth macrospin in the presence of a polarized current	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS	2014
14	Oniciuc Eugen - Stoleriu Laurentiu - Cimpoesu Dorin - Stancu Alexandru	Effect of damping on the laser induced ultrafast switching in rare earth transition metal alloys	APPLIED PHYSICS LETTERS	2014
15	Lungu Alin-Cristian - Stancu Alexandru	Oscillation synchronization in a linear chain of interacting single-domain ferromagnetic particles	PHYSICA B- CONDENSED MATTER	2014
16	Nica Mihai - Stancu Alexandru	FORC diagram study of magnetostatic interactions in 2D longitudinal arrays of magnetic wires	PHYSICA B- CONDENSED MATTER	2015
17	Dobrota Costin-Ionut - Stancu Alexandru	Tracking the individual magnetic wires' switchings in ferromagnetic nanowire arrays using the first-order reversal curves (FORC) diagram method	PHYSICA B- CONDENSED MATTER	2015
18	Astefanoaei Iordana - Chiriac Horia - Stancu Alexandru	Investigation of the temperature field in the magnetic hyperthermia using FeCrNbB magnetic particles	EUROPEAN PHYSICAL JOURNAL PLUS	2016
CARTI				
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COMUNICARI STIINTIFICE NATIONALE SI INTERNATIONALE				
1	Stancu Alexandru	Hysteresis and the first-order reversal curves diagram technique	MURPHYS 2012 - 6th International Workshop on Multi-Rate Processes and Hysteresis	21/05/2012 - 24/05/2012
2	Stancu Alexandru	Hysteretic processes and the first-order reversal curves (FORC) diagram technique	Joint Conference COST MPO904 Action „Single- and multiphase ferroics and multiferroics with restricted geometries” & IEEE-ROMSC 2012	24/09/2012 - 26/09/2012
3	Stancu Alexandru	FORC Analysis of Size and Shape Effects in a Preisach- type Model for Ferromagnetic Nanowire Arrays	MOLMAT 2012 - 5th International Conference on Molecular Materials	03/07/2012 - 06/07/2012

4	Oniciuc Eugen - Stoleriu Laurentiu - Stancu Alexandru	The critical curve of single-domain particles with quartic crystalline anisotropy subject to polarized currents.	INTERMAG 2012 - International Magnetism Conference	07/05/2012 - 11/05/2012
5	Ursachi Irina - Stancu Alexandru - Vasile Aurelia	Magnetic properties of iron oxides nanoparticles dispersed in ordered mesoporous silica MCM-41	INTERMAG 2012 - International Magnetism Conference	07/05/2012 - 11/05/2012
6	Dobrota Costin-Ionut - Stancu Alexandru	Understanding the distribution of switching events as observed on FORC diagram of ferromagnetic nanowire arrays	12th Joint MMM/Intermag Conference	14/01/2013 - 18/01/2013
7	Stancu Alexandru	LLBS simulation of the temperature dependent macrospin switching in the presence of a polarized current	12th Joint MMM/Intermag Conference	14/01/2013 - 18/01/2013
8	Stancu Alexandru	Pressure and temperature hybrid minor loops in spin transition materials	12th Joint MMM/Intermag Conference	14/01/2013 - 18/01/2013
9	Astefanoaei Iordana, Dumitru Ioan , Stancu Alexandru	Laser pulse heating and thermal stresses in magnetic nanowires	12th Joint MMM/Intermag Conference	14/01/2013 - 18/01/2013
10	Oniciuc Eugen - Stoleriu Laurentiu - Stancu Alexandru	Micromagnetic simulations of the Joule-assisted magnetization switching with polarized currents	X- LAW3M - 10th edition of the Latin American Workshop on Magnetism	08/04/2013 - 12/04/2013
11	Dobrota Costin-Ionut - Stancu Alexandru	Quantitative analysis of ferromagnetic nanowire arrays FORC diagrams	X- LAW3M - 10th edition of the Latin American Workshop on Magnetism	08/04/2013 - 12/04/2013
12	Stancu Alexandru	FORC experimental technique and the Preisach distribution	9th International Symposium on Hysteresis Modelling and Micromagnetics 2013	13/05/2013 - 15/05/2013
13	Oniciuc Eugen - Stoleriu Laurentiu - Stancu Alexandru	Heat-assisted solutions in spin transfer driven magnetic recording: functionality of a macrospin model	9th International Symposium on Hysteresis Modelling and Micromagnetics 2013	13/05/2013 - 15/05/2013
14	Dobrota Costin-Ionut - Stancu Alexandru	FORC diagrams interpretation: bit pattern media versus nanowire arrays	9th International Symposium on Hysteresis Modelling and Micromagnetics 2013	13/05/2013 - 15/05/2013
15	Dobrota Costin-Ionut - Stancu Alexandru	Mean field modeling with Preisach-Krasnosels'kii-Pokrovskii hysterons for arrays of ferromagnetic nanowires	9th International Symposium on Hysteresis Modelling and Micromagnetics 2013	13/05/2013 - 15/05/2013
16	Stancu Alexandru	Magnetic study of ancient pottery using the first-order reversal curves (FORC) diagram technique	CERMODEL 2013 - Modelling and Simulation meet Innovation in Ceramics Technology	10/07/2013 - 12/07/2013
17	Dobrota Costin-Ionut - Stancu Alexandru	Tracking individual wires contribution on the FORC diagram for magnetic nanowire arrays samples	MMM 2013 - 58TH Annual conference on magnetism and magnetic materials	04/11/2013 - 08/11/2013
18	- Stoleriu Laurentiu - Stancu Alexandru, Tanasa Radu, Markou A, Panagiotopoulos I	Micromagnetic study of magnetization processes in patterned media deposited using polystyrene sphere	MMM 2013 - 58TH Annual conference on magnetism and magnetic materials	04/11/2013 - 08/11/2013

		array masks		
19	Tanasa Radu , Stancu Alexandru, Yue G, Chiorescu Irinel, Wernsdorfer W	Experimental quantum FORC study of hysteretic processes at ultra-low temperature in Fe8 molecular nanomagnets	MMM 2013 - 58TH Annual conference on magnetism and magnetic materials	04/11/2013 - 08/11/2013
20	Stancu Alexandru	FORC experimental technique from qualitative to quantitative interpretation. What are the limits?	MURPHYS 2014	07/04/2014 - 11/04/2014
21	Oniciuc Eugen - Stoleriu Laurentiu, Cimpoesu Dorin - Stancu Alexandru	Simulating ultrafast thermal magnetization reversal with the ferrimagnetic Landau-Lifshitz-Bloch equation	IEEE International Magnetism Conference	04/05/2014 - 08/05/2014
22	Dobrota Costin-Ionut - Stancu Alexandru	Quantitative Preisach & FORC analysis of ferromagnetic nanowire arrays	IEEE International Magnetism Conference	04/05/2014 - 08/05/2014
23	Nica Valentin, Stancu Alexandru	Tracking interaction field intensity with FORC diagrams in longitudinal 1D, 2D arrays of magnetic wires and in frustrated systems	58TH Annual conference on magnetism and magnetic materials	03/11/2014 - 07/11/2014
24	Oniciuc Eugen - Stoleriu Laurentiu, Cimpoesu Dorin - Stancu Alexandru	THz oscillations in antiferromagnetically coupled sublattices, multilayers and heterostructures mediating all-optical helicity-dependent magnetic switching	58TH Annual conference on magnetism and magnetic materials	03/11/2014 - 07/11/2014
25	Dobrota Costin-Ionut - Stancu Alexandru	The effect of multiple occurrences of physical hysterons on the FORC diagram for 2D arrays of magnetic nanowires	58TH Annual conference on magnetism and magnetic materials	03/11/2014 - 07/11/2014
26	Oniciuc Eugen - Stoleriu Laurentiu, Cimpoesu Dorin - Stancu Alexandru	Femtosecond and Nanoscale Processing of Magnetic Information: Multiscale Modelling	International Conference on Applied and Theoretical Electricity	23/10/2014 - 25/10/2014
27	Postolache Petronel, Stoleriu Laurentiu, Panagiotopoulos Ioannis, Stancu Alexandru	Magnetic Relaxation Effects On First-Order Reversal Curves	10th International Symposium on Hysteresis Modeling and Micromagnetics - HMM2015	18/05/2015 - 20/05/2015
28	Stancu Alexandru	The FORC diagram method and the Preisach model: Challenges in the quantitative interpretation of experimental FORC distributions	2015 First Order Reversal Curve (FORC) Workshop	23/07/2015 - 24/07/2015
29	Stancu Alexandru	FORC diagram method as quantitative magnetic characterization tool	7th International Workshop on Amorphous and Nanostructured Magnetic Materials - ANMM	21/09/2015 - 24/09/2015
30	Stancu Alexandru	A26 – Characterizing hysteretic processes in magnetic nanostructures with FORC diagram technique	Energy, Materials, Nanotechnology Bangkok Meeting 2015	10/11/2015 - 13/11/2015
31	Stancu Alexandru	FORC diagram method as general characterization tool of hysteretic processes	Spain IEEE Chapter meeting	10/12/2015 - 11/12/2015
32	Stancu Alexandru, Nica Mihai	Study of the individual magnetic wires switchings in 2D interacting wire arrays as a function of the system	IEEE Joint Magnetism and Magnetic Materials - INTERMAG Conference	11/01/2016 - 15/01/2016

		temperature		
33	Stancu Alexandru	Quantitative analysis of the FORC diagrams of 1D and 2D magnetic nanostructures	Advances in Magnetism Conference	14/03/2016 - 16/03/2016
34	Stancu Alexandru	FORC diagram analysis of hysteretic thermal phase transition in spin-crossover materials	XXV International Materials Research Congress	14/08/2016 - 18/08/2016
35	Negulescu Beatrice, Stancu Alexandru, Stoleriu Laurentiu	FORC based study of interactions in 2D magnetic nanostructures. Experiment and simulations	61st Annual Conference on Magnetism and Magnetic Materials	31/10/2016 - 04/11/2016
36	Stancu Alexandru	FORC diagram technique: advantages, limitations, and unique qualities	2nd Annual FORC Workshop	30/10/2016 - 30/10/2016
ATLASE, DICTIONARE DE SPECIALITATE				
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CERERI BREVET DE INVENTII/BREVET OBTINUT				
ALTE rezultate				
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Lista achizițiilor realizate în cadrul proiectului

Denumire echipament	Categorie de achiziții: (numai mijloace fixe)	Valoarea (lei)	Locație

Director de proiect,
Prof. Dr. Alexandru STANCU

