

PERSONAL INFORMATION

CĂTĂLIN NICOLAE MARIN



 West University of Timișoara, Faculty of Physics

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<https://physics.uvt.ro/prof-dr-marin-catalin/>

Gender Male | Nationality Romanian

WORK EXPERIENCE

- From 2021 Head of the Department of Physics, West University of Timisoara
<https://physics.uvt.ro/departamentul-de-fizica-2/>
- 2022-2023 Special Issue Editor
MAGNETOCHEMISTRY, journal of MDPI - Academic Open Access Publishing, Basel, Switzerland
https://www.mdpi.com/journal/magnetochemistry/special_issues/Ferrofluids_Electromagnetic_Properties_Applications
- 2022-2023 Special Issue Editor
MATERIALS, journal of MDPI - Academic Open Access Publishing, Basel, Switzerland
https://www.mdpi.com/journal/materials/special_issues/Adv_Electromagn_Prop_Magn_Mater
- From 2020 Director of Applied Electromagnetism Laboratory
<https://ccdmiab.e-uvt.ro/laboratoare/lea>
- From 2019 Chairman of the Commission for Doctoral and Postdoctoral Studies of the Senate of West University of Timisoara
<https://www.uvt.ro/organizare/senat-uvt/>
- From 2020 Member of the Senate of West University of Timisoara
<https://www.uvt.ro/organizare/senat-uvt/>
- From 2017 Member of the Doctoral School of Physics, West University of Timisoara
<https://physics.uvt.ro/educatie/doctorat/>
- 2016-2017 Vice dean of the Faculty of Physics, West University of Timisoara
- 2013-2016 Chairman of the Commission of Institutional Strategy and Internal Management Control of the Senate of West University of Timisoara
- 2012-2016 Member of the Senate of West University of Timisoara
- From 2009 to present **Associate professor**
<https://physics.uvt.ro/prof-dr-marin-catalin/>
West University of Timișoara, Faculty of Physics,
Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania

The main activities were related to teaching and research. I lectured courses of Experimental physics, Relaxation processes in nanosystems and Colloids with biomedical applications and I am PhD tutor in the field of electromagnetic properties of materials. Apart of these, I had administrative duties as head of the department of physics, member of the university senate and chairman of the Commission of Institutional Strategy and Internal Management Control of the Senate of West University of Timisoara.
- 2008 – 2016 and 2019 – 2021 Member of the Faculty Council of the Faculty of Physics at West University of Timisoara

2004 - 2011 Secretary of the local branch in Timisoara of "Romanian Society of Physics"

From 2003 to 2009 **Lecturer**

West University of Timișoara, Faculty of Physics,

Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania

- The main activities were related to teaching and research. I lectured courses of Physics and technology of dielectric materials, Smart materials, Technologies and devices with smart fluids, Nano-magneto-dielectrics in electromagnetic fields.

From 1994 to 2003 **Teaching Assistant**

West University of Timișoara, Faculty of Physics,

Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania -

- The main activities were related to teaching and research. I led laboratory and seminar classes of Microwaves and applications, Basis of computer science, and Dielectrics and applications.

From 1992 to 1994 **Junior Teaching Assistant**

West University of Timișoara, Faculty of Physics,

Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania -

- The main activities were related to teaching and research. I led laboratory and seminar classes of Electronics and Solid state physics.

EDUCATION AND TRAINING

1987 - 1992 **BA in Physics**

West University of Timișoara, Faculty of Physics

- Education and research skills

Order of the Ministry of Education and Research no. 3876/19.05.2004

PhD - Physics

West University of Timișoara, Faculty of Physics

- Research skills on:
 - Electromagnetic properties of ferrofluids;
 - Materials and electronic devices in electromagnetic field;
 - Magnetic and dielectric relaxation processes in nano-microstructured systems;
 - Ferromagnetic resonance in nano-microstructured systems; Propagation of the radiofrequency and microwave electromagnetic field in different systems (with applications as electromagnetic absorbers and electromagnetic shielding);
 - Cancer treatment by magnetic hyperthermia of tissues;
 - Active electric and magnetic hybrid materials for technical and bio-medical applications;
 - Phyto-magnetic and phyto-electric composites;
 - "bio-inspired" and "eco-friendly" material and structures;
 - Electromagnetic absorbers and methods of bioprotection against electromagnetic pollution.

Order of the Ministry of National Education and Scientific Research no. 5966/08.12.2016

Dr. Habil. – granting the right to coordinate PhD students in Physics

West University of Timișoara, Faculty of Physics

- Main research domain:

- Electromagnetic properties of materials for technical and biomedical applications;

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2+	B2+	B2+	B2+	B2+
French	B1/B2	B1/B2	B1/B2	B1/B2	A1/A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills ▪ good communication skills gained through my teaching experience of 30 years.

Organizational / managerial skills Based on my professional experience, I gained good organizational and management skills such as:

- creating and keeping deadlines
- decision making
- team management
- team leadership
- teamwork
- coordinating events
- strategic thinking
- implementing strategy
- multitasking
- delegation
- project management
- making schedules

Job-related skills Teaching and research experience of 30 years allowed me to tackle a range of complex didactical and scientific problems related to the general physics and especially on the nanoparticle systems.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Independent user	Independent user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- good command of MathCad
- good command of Origin
- good command of office suite (word processor, spread sheet, presentation software)

- good command of photo editing software gained as an amateur photographer

- Other skills
- Excellent problem-solving skills with attention to bottom-line.
 - Ability to conceptualize and generate new ideas, analyze problems and develop effective solutions.
 - Strong project management skills and the ability to gain cooperation between groups and individuals.
 - Able to perform well in emergency situations and under tight deadlines.

Driving license Driving license category B

ADDITIONAL INFORMATION

- 82 articles published in scientific journals, indexed in Web of Science and Scopus databases; <https://www.webofscience.com/wos/author/record/51146.14751097>
<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=Marin&st2=Catalin+Nicolae&nlo=1&nlr=20&nls=afprfm-t&sid=d23407cf2c328434a6a16638968addd8&sot=ani&sdt=aut&sl=32&s=AU-ID%28%22Marin%2c+C.+N.%22+7101670569%29&partialQuery=&txGid=0c55429f8547207ae738d0214a49f445>
- 23 articles published in other journals than those indexed in Web of Science or Scopus databases; <https://scholar.google.com/citations?user=HRVSsAIAAAAJ&hl=ro>
- over 100 scientific communications in conferences;
- 11 scientific and didactic books as author;
- 1 volume as Editor at American Institute of Physics; <https://aip.scitation.org/toc/apc/2071/1?size=all>
- 1 book as co-Editor at Cambridge Scholars Publishing, <https://www.cambridgescholars.com/product/978-1-5275-9166-0>
- 6 research contracts as director / manager.

Other activities in the benefit of the academic and scientific community 2020-2021

	Evaluating expert for the Ministry of Education and Research in the evaluation and accreditation process of the National Research and Development Institutes
2021	Co-chair of the organizing committee of 4th International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Mechanical Properties and Structure" 19 - 22 April 2021, https://indico.jinr.ru/event/1140/
2020	Responsible for the West University of Timisoara for scientific cooperation with the Joint Institute for Nuclear Research Dubna - Russia
2020	Expert for defining national areas of intelligent specialization. within the SIPOCA 592 project, coordinated by the Ministry of Education and Research (MEC), in partnership with UEFISCDI, in the context of the elaboration of the National Strategy for Intelligent Research, Innovation and Specialization 2021-2027.
From 2015	Director of the undergraduate program "Medical Physics" at the Faculty of Physics of the West University of Timisoara
2001-2019	Member of the organizing committee of the Physics Conference with international participation TIM-01, ..., TIM-19 (19 editions)
2018	Chairman of the TIM 18-Physics Conference (2018)
2007-2008	Referent C.N.M.P. (National Center for Program Management) within the A.N.C.S. (National Authority for Scientific Research)
From 2000	Reviewer for various international journals such as, : Langmuir (ACS Publications), Materials Characterization (Elsevier), Journal of Molecular Liquids (Elsevier), European Physical Journal E (Springer), Journal of Magnetism and Magnetic Materials (Elsevier), Biomedical Engineering - Applications, Basis and Communications (World Scientific Publishing), Materials Research Bulletin (Elsevier), Materials (MDPI), Journal of Applied Physics (American Institute of Physics) and others.

From 2012 Editorial Advisory Board Member - The Annals of the West University of Timisoara, Physics Series – Sciendo - De Gruyter
<https://sciendo.com/journal/awutp?tab=editorial-board>

Scientific and teaching publications

A) Articles published in journal which are indexed in Web of Science and Scopus databases

1. I.Hrianca, I.Mălăescu, F.Claici, **C.N.Marin**, "The influence of particles concentration in ferrofluids on the broadening of the magnetic resonance line", J. Magn. Magn. Mater 201 no.1-3 (1999) 126-128.
2. I.Mălăescu, **C.N.Marin**, "Deviation from the superparamagnetic behaviour of fine-particle systems", J. Magn. Magn. Mater 218 (2000) 91-96.
3. **C.N.Marin**, I.Mălăescu, A.Ercuța, "The dependence of the effective anisotropy constant on particle concentration within ferrofluids, measured by magnetic resonance", J.Phys.D: Appl.Phys. 34, no.10 (2001) 1466-1469.
4. I.Mălăescu, **C.N.Marin**, "Dependence on the temperature of the activation energy in the dielectric relaxation processes for ferrofluids in low-frequency field", J. Magn. Magn. Mater 252 (2002) 68-70.
5. I.Mălăescu, **C.N.Marin**, "Dielectric behavior of some ferrofluids in low-frequency fields", Journal of Colloid and Interface Science 251 (2002) 73-77
6. **C.N.Marin**, "The particle concentration effect on magnetic resonance linewidth for magnetic liquids with chain aggregates", J. Magn. Magn. Mater. 250 (2002) 197-202.
7. **C.N.Marin**, I.Mălăescu, V.Socoliuc, "Study of the interparticle interaction effect on magnetic resonance line in ferrofluids", Journal of Optoelectronics and Advanced Materials, 5 (2003) 227 - 231.
8. P.C.Fannin, **C.N.Marin**, V.Socoliuc, G.M.Istrățucă, A.T.Giannitsis, "The effect of colloidal stabilization upon ferrimagnetic resonance in magnetic fluids in the presence of a polarizing magnetic field", J.Phys.D: Appl.Phys., 36 (2003) 1227 – 1235.
9. P.C.Fannin, **C.N.Marin**, I.Mălăescu, "The influence of particle concentration and polarizing field on the resonant behaviour of magnetic fluids", J. Phys.: Condensed Matter 15 (2003) 4739 - 4750.
10. P.C.Fannin, **C.N.Marin**, V.Socoliuc, G.M.Istrățucă, "Investigation of particle agglomeration in un-polarised magnetic fluids by means of magnetic resonance measurements", J.Magn.Magn.Mater., 284C (2004) 104-112.
11. P.C.Fannin, **C.N.Marin**, I.Mălăescu, A.T.Giannitsis, "Microwave absorption of composite magnetic fluids", J.Magn.Magn.Mater. 289 (2005) 78-80.
12. P.C.Fannin, I.Mălăescu, **C.N.Marin**, "The effective anisotropy constant of particles within magnetic fluids as measured by magnetic resonance", J.Magn.Magn.Mater. 289 (2005) 162-164.
13. I.Mălăescu, **C.N.Marin**, "Study of magnetic fluids by means of magnetic spectroscopy", Physica B: Condensed Matter, 365 (2005) 134 – 140.
14. P.C.Fannin, **C.N.Marin**, "Determination of the Landau-Lifshitz damping parameter by means of complex susceptibility measurements", J. Magn. Magn. Mater., 299 (2006) 425 - 429.
15. **C. N. Marin**, "Thermal and particle size distribution effects on the ferromagnetic resonance in magnetic fluids" J.Magn.Magn.Mater., 300 (2006) 397 - 406.
16. P. C. Fannin, C. Mac Oireachtaigh, I. Malaescu, **C. N. Marin** "Investigation of magnetic fluids exhibiting field induced absorption peaks in the susceptibility spectra", Journal of Optoelectronics and Advanced Materials, Vol. 8, No. 1, (2006), 46 – 49.
17. P. C. Fannin, **C. N. Marin**, I. Malaescu, N. Stefu "Microwave dielectric properties of magnetite colloidal particles in magnetic fluids", J. Phys.: Condensed Matter, 19 (2007) 036104-036111.
18. P.C.Fannin, **C.N.Marin**, I. Malaescu, N.Stefu, "An investigation of the microscopic and macroscopic properties of magnetic fluids", Physica B: Condensed Matter, 388 (2007) 87–92.
19. P. C. Fannin, I. Malaescu, **C. N. Marin**, "Determination of the Landau-Lifshitz damping parameter of composite magnetic fluids", Physica B: Condensed Matter, 388 (2007) 93–98.
20. P. C. Fannin, **C. N. Marin**, C. Couper, "On the significance of the area under the after-effect function curve of a magnetic fluid", J. Phys.: Condens. Matter **20** (2008) 204108 (4pp)

21. P.C. Fannin, **C.N. Marin**, "Characteristic times of relaxation peaks of magnetic fluids", J. Magn. Magn. Mater., **320** (2008) 2106–2111
22. P.C. Fannin, I. Malaescu, **C.N. Marin**, N. Stefu, "Microwave specific loss power of magnetic fluids subjected to a static magnetic field", Eur. Phys. J. E **27** (2008) 145–148.
23. P.C.Fannin, I. Malaescu, **C. N. Marin**, N. Stefu, *Microwave propagation parameters in magnetic fluids*, The European Physical Journal E, **29** (3) 299-303 (2009)
24. P.C. Fannin, I. Malaescu, N. Stefu, **C. N. Marin**, „Polarizing field and particle concentration dependence of the magnetic loss power in ferrofluids”, AIP Conference Proceedings 1131 (2009) pp 81-85
25. P.C.Fannin, **C.N Marin**, C. Couper, , "Investigation of magnetic fluids exhibiting field-induced increasing loss peaks", Journal of Magnetism and Magnetic Materials **322** (9-12) 1677-1681 (2010)
26. P.C.Fannin, **C.N. Marin**, C. Couper, , "Precessional decay time of nanoparticles in magnetic fluids", Journal of Magnetism and Magnetic Materials **322** (9-12) 1682-1685 (2010)
27. Fannin, P.C., Stefu, N., **Marin, C.N.**, Malaescu, I., Totoreanu, R., "Ferrofluid microwave devices with magnetically controlled impedances", AIP Conference Proceedings 1262 (2010) pp. 92-97
28. Serban, V.A., Malaescu, I., Ercuta, A., **Marin, C.N.**, Stefu, N., Opris, C., Codrean, C., Utu, D., "Magnetic properties of the WC-Co cermet powders", AIP Conference Proceedings 1262 (2010) pp. 113-117
29. C. Couper, **C.N. Marin**, P.C. Fannin, "Biasing field effect on the microwave dielectric properties of magnetic fluids", Physics Procedia, Volume 9 (2010) Pages 58-62
30. P. C. Fannin, **C. N. Marin**, C. Couper, I. Malaescu, N. Stefu, "A Comparative Study of the Field Dependence of the Properties of Colloidal Suspensions of Nanoparticles and of Magnetic Microspheres", PIERS Proceedings, Xi'an, China (2010) March 22-26
31. P. C. Fannin, **C. N. Marin**, I. Malaescu, N. Stefu, P. Vlăzan, S. Novaconi, S. Popescu, "Effect of the concentration of precursors on the microwave absorbent properties of Zn/Fe oxide nanopowders", Journal of Nanoparticle Research, **13** 311–319 (2011)
32. P.C. Fannin, **C. N. Marin**, I. Malaescu, N. Stefu, P. Vlazan, S. Novaconi, P. Sfirloaga, S. Popescu, C. Couper, "Microwave absorbent properties of nanosized cobalt ferrite powders prepared by coprecipitation and subjected to different thermal treatments", Materials and Design **32** 1600–1604 (2011)
33. P.C. Fannin, **C. N. Marin**, C.Couper, "The resonance decay function method in the determination of the pre-factor of the Néel relaxation time of single-domain nanoparticles", Journal of Magnetism and Magnetic Materials **323** (9-12) 1242-1245 (2011)
34. I. Malaescu, **C. N. Marin**, P. C. Fannin, N. Stefu, A. Savici, D. Malaescu, "Comparative study of the microwave propagation parameters of some magnetic fluids in the presence of polarizing field", AIP Conference Proceedings 1387 (2011), pp. 208-212
35. P. C. Fannin, **C. N. Marin**, *The use of magnetic spectroscopy in the investigation of the magnetic viscosity of nanoparticles at microwave frequencies*, PIERS ONLINE, VOL. 7, NO. 6, 2011
36. **C. N. Marin**, P.C. Fannin, I. Mălăescu, P. Barvinschi, A. Ercuța, "Intra-well relaxation process in magnetic fluids subjected to strong polarising fields", Journal of Magnetism and Magnetic Materials **324** (4) 434 - 439 (2012)
37. P.C. Fannin, **C. N. Marin**, K. Raj, C. Couper, P. Barvinschi, *An experimental study of the dynamic properties of nanoparticle colloids with identical magnetization but different particle size*, Journal of Magnetism and Magnetic Materials **324** 3443–3447 (2012)
38. **C. N. Marin**, I. Malaescu, A. Savici, *Investigation of the low frequency polarization mechanisms in magnetic fluids*, ACTA PHYSICA POLONICA A, Vol. **124**, No. 4, (2013) 724 – 727
39. **C. N. Marin**, P. C. Fannin, K. Raj, V. Socoliuc, *Magneto-dielectric spectroscopy of magnetic fluids*, Magnetohydrodynamics, Vol. **49**, Issue 3-4 (2013) 270-276
40. M. Spunei, I. Malaescu, M. Mihai and **C. N. Marin**, *Absorbing materials with applications in radiotherapy and radioprotection*, Radiation Protection Dosimetry, 162 (1-2) (2014) 167-170, doi:10.1093/rpd/ncu252
41. **C. N. Marin**, I. Malaescu, P. C. Fannin, *Theoretical evaluation of the heating rate of ferrofluids*, Journal of Thermal Analysis and Calorimetry 119 issue 2 (2015) 1199-1203 DOI 10.1007/s10973-014-4224-2

42. A. Lungu, I. Malaescu, **C. N. Marin**, P. Vlăzan, P. Sfirloaga, *The electrical properties of manganese ferrite powders prepared by two different methods*, Physica B: Condensed Matter, 462 (2015) 80-85.
43. P. Sfirloaga, I. Miron, I. Malaescu, **C.N. Marin**, C. Ianasi, P. Vlazan, *Structural and physical properties of undoped and Ag-doped NaTaO₃ synthesized at low temperature*, Materials Science in Semiconductor Processing 39 (2015) 721-725
44. Gabriel Mihai Turi, **Cătălin Nicolae Marin**, and Marius Paulescu, *A review of the solar energy database for the Banat plain*, AIP Conference Proceedings 1694 (2015) 040010-1 (5pp); doi: 10.1063/1.4937262
45. Aurora Gajta, Daniela Turkoanje, Iosif Malaescu, **Catalin-Nicolae Marin**, Marie-Jeanne Koos, Biljana Jelcic, Vuk Milutinovic, *Dry eye syndrome among computer users*, AIP Conference Proceedings 1694 (2015) 040011-1 (5pp); doi: 10.1063/1.4937263
46. **C.N. Marin**, P.C. Fannin, I. Malaescu, *Time solved susceptibility spectra of magnetic fluids*, Journal of Magnetism and Magnetic Materials 388 (2015) 45-48
47. D. Malaescu, I. Grozescu, P. Sfirloaga, P. Vlazan, **C. N. Marin**, *The Electrical Properties of Some Composite Materials Based on Sodium and Tantalum Oxides*, Acta Physica Polonica A 129 (1) (2016) 133-137.
48. Q. Li, P. C. Fannin, **C. N. Marin**, I. Malaescu, K. Raj, *On the utility of low frequency, polarised, complex susceptibility measurements in the investigation of the dynamic properties of magnetic fluids*, Journal of Molecular Liquids, 219 (2016) 773-779.
49. I. Malaescu, A. Lungu, **C. N. Marin**, P. Vlazan, P. Sfirloaga, G. M. Turi, *Experimental investigations of the structural transformations induced by the heat treatment in manganese ferrite synthesized by ultrasonic assisted co-precipitation method*, Ceramics International, 42 (2016) 16744–16748
50. P. Sfirloaga, **C. N. Marin**, I. Malaescu, P. Vlazan, *The electrical performance of ceramics materials with perovskite structure doped with metallic ions*, Ceramics International, 42 (2016) 16744–16748
51. P. C. Fannin, L. Vekas, **C. N. Marin**, I. Malaescu, *On the determination of the dynamic properties of a transformer oil based ferrofluid in the frequency range 0.1–20 GHz*, Journal of Magnetism and Magnetic Materials, 423 (2017) 61-65
52. P.C. Fannin, **C.N. Marin**, I. Malaescu, K. Raj, C. Popoiu, *“Local arrangement of particles in magnetic fluids due to the measurement alternating field”*, Journal of Magnetism and Magnetic Materials, 438, (2017) 116-120
53. I. Malaescu, P. C. Fannin, **C. N. Marin**, D. Lazic, *The concept of ferrofluid preheating in the treatment of cancer by magnetic hyperthermia of tissues*, Medical Hypotheses 110 (2018) 76-79
54. I. Malaescu, A. Lungu, **C. N. Marin**, P. Sfirloaga, P. Vlazan, S. Brindusoiu, M. Poienar, *Temperature dependence of the dynamic electrical properties of Cu_{1+x}Mn_{1-x}O₂ (x=0 and 0.06) crednerite materials*, Ceramics International, 44 (10) (2018) 11610-11616
55. M. Stoia, C. Pacurariu, C. Mihali, I. Malaescu, **C. N. Marin**, A. Capraru, *Manganese ferrite-polyaniline hybrid materials: Electrical and magnetic properties*, Ceramics International, 45 (2019) 2725-2735.
56. D. Lazic, P. C. Fannin, P. Sfirloaga, P. Barvinschi, I. Malaescu, V. Socoliuc, **C. N. Marin**, *Influence of the size of particles on the magnetic heating of a mixed ferrite*, AIP Conference Proceedings, 2071, 040012 (2019); <https://doi.org/10.1063/1.5090079>
57. S. Brindusoiu, M. Poienar, **C. N. Marin**, P. Sfirloaga, P. Vlazan, I. Malaescu, *The electrical conductivity of Fe₃(PO₄)₂·8H₂O materials*, J Mater Sci: Mater Electron 30, 15693–15699 (2019) doi:10.1007/s10854-019-01952-3
58. P. Sfirloaga, I. Malaescu, **C. N. Marin**, P. Vlazan, *The effect of partial substitution of Pd in LaMnO₃ polycrystalline materials synthesized by sol-gel technique on the electrical performance*, J Sol-Gel Sci Technol (2019) 92: 537-545. <https://doi.org/10.1007/s10971-019-05102-3>
59. G. Matu, **C. N. Marin**, I. Malaescu, *Frequency and temperature analysis of the clausius-mossotti factor of a kerosene-based ferrofluid in low frequency field*, Journal of Ovonic Research, 16, Issue 2 (2020) 89-96.
60. O. M. Bunoiu, G. Matu, **C. N. Marin**, I. Malaescu, *Investigation of some thermal parameters of ferrofluids in the presence of a static magnetic field*, J. Magn. Magn. Mater., 498 (2020), Article number 166132.

61. D. Lazic, I. Malaescu, O. M. Bunoiu, I. Marin, F. G. Popescu, V. Socoliuc, **C. N. Marin**, *Investigation of therapeutic-like irradiation effect on magnetic hyperthermia characteristics of a water-based ferrofluid with magnetite particles*, J. Magn. Magn. Mater., **502** (2020) Article number 166605
62. E. Anitas, I. Bica, M. Bunoiu, I. Malaescu, **C. N. Marin**, A. Ercuta, M. Balasoiu, M. Lungu, G. Pascu, *Magneto-optical transmittance observed in magnetorheological suspensions films*, AIP Conference Proceedings, **2218** (2020) Article number 030016
63. S. Brindusoiu, P. Sfirloaga, P. Vazan, P. C. Fannin, I. Malaescu, **C. N. Marin**, *The electrical conductivity of giniite $Fe_5(PO_4)_4(OH) \cdot 3 \cdot 2H_2O$ materials*, AIP Conference Proceedings, **2218** (2020) Article number 030017
64. P. Sfirloaga, I. Malaescu, **C. N. Marin**, M. Poienar, P. Vlazan, *Effect of Fe-doping on the structural, morphological and electrical properties of $LaMnO_3$* , AIP Conference Proceedings, **2218** (2020) Article number 040003
65. B. Ile, M. Spunei, I. Malaescu, **C. N. Marin**, *The stability of silicone based bolus before and after a radiotherapy treatment*, AIP Conference Proceedings, **2218** (2020) Article number 030018.
66. D. Susan-Resiga, I. Malaescu, O. Marinica, **C. N. Marin**, *Magnetorheological properties of a kerosene-based ferrofluid with magnetite particles hydrophobized in the absence of the dispersion medium*, Physica B: Condensed Matter, **587** (2020) Article number 412150
67. P. Sfirloaga, G. Vlase, T. Vlase, I. Malaescu, **C. N. Marin**, P. Vlazan, *Silver doping in lanthanum manganite materials: structural and electrical properties*, Journal of Thermal Analysis and Calorimetry, **142** (2020) 1817 – 1823 DOI: 10.1007/s10973-020-10095-1
68. C. Zaharia, V. F. Duma, C. Sinescu, V. Socoliuc, I. Craciunescu, R. P. Turcu, **C. N. Marin**, A. Tudor, M. Rominu, M. L. Negrutiu, Meda, *Dental Adhesive Interfaces Reinforced with Magnetic Nanoparticles: Evaluation and Modeling with Micro-CT versus Optical Microscopy*, Materials, **13** (18) (2020) Article Number: 3908, DOI: 10.3390/ma13183908
69. **C. N. Marin**, I. Malaescu, *Experimental and theoretical investigations on thermal conductivity of a ferrofluid under the influence of magnetic field*, EUROPEAN PHYSICAL JOURNAL E, **43** Issue: 9 (2020) Article Number: 61
70. **C. N. Marin**, P. C. Fannin, I. Malaescu, G. Matu, *Macroscopic and microscopic electrical properties of a ferrofluid in a low frequency field*, PHYSICS LETTERS A, **384** Issue: 30 (2020) Article Number: 126786
71. V. Socoliuc, **C. N. Marin**, *The effect of long time exposure to light of a water-based ferrofluid on its low frequency complex magnetic permeability*, J. Magn. Magn. Mater., **523** (2021) 167635
72. B. Ile, I. Malaescu, **C. N. Marin**, I. Marin, M. Spunei, S. Negru, *Dosimetric investigations of some composites consisting of metallic particles distributed in silicone rubber matrix*, Journal of Ovonic Research, **17**, Issue 2 (2021) 217 - 223
73. **C. N. Marin**, I. Malaescu, P. Sfirloaga, A. Teusdea, *Electric and magnetic properties of a composite consisting of silicone rubber and ferrofluid*, Journal of Industrial and Engineering Chemistry, 101 (2021) 405-413 DOI:10.1016/j.jiec.2021.05.042
74. P. C. Fannin, O. M. Bunoiu, I. Malaescu, **C. N. Marin**, D. Ursu, *Magnetically tuning microwave propagation parameters in ferrofluids*, The European Physical Journal E, **44**, Issue 6 (2021) Article number 83
75. Adina-Elena Segneanu, **Catalin Nicolae Marin**, Ioan Ovidiu-Florin Ghirlea, Catalin Vladut Ionut Feier, Cornelia Muntean and Ioan Grozescu, *Artemisia annua Growing Wild in Romania—A Metabolite Profile Approach to Target a Drug Delivery System Based on Magnetite Nanoparticle*, Plants 2021, 10, 2245. DOI: 10.3390/plants10112245
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