

CURRICULUM VITAE

IOSIF MĂLĂESCU

WORK EXPERIENCE

From 2020 to present **Professor Emeritus, West University of Timisoara**

From 2012 to 2020 **Professor / Since 2016 - Director of the Physics Doctoral School**

West University of Timișoara, Faculty of Physics,
Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania -
<https://www.uvt.ro/ro/educatie/facultati/facultatea-de-fizica/>

- The main activities were related to teaching and research. I taught courses of Electronics, Electricity and Magnetism, Nanosystems in electromagnetic fields and Complements of the materials physics. Apart of these, in the period 2012-2016 I was director of the department of physics and I had administrative duties, member of the faculty board, member of the university senate.

From 2008 to 2012 **Professor/Head of Chair, Physics Faculty**

West University of Timișoara, Faculty of Physics,
Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania -
<https://www.uvt.ro/ro/educatie/facultati/facultatea-de-fizica/>

- The main activities were related to teaching and research. I taught courses of Electronics, Microwave and applications, Nano-magneto-dielectrics in electromagnetic fields. Apart of these, in the period 2008-2012 I was head of the chair of physics department and I had administrative duties, member of the faculty board.

From 2003 to 2008 **Assistant professor/Since 2004 - Vice dean of the Physics Faculty**

West University of Timișoara, Faculty of Physics,
Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania -
<https://www.uvt.ro/ro/educatie/facultati/facultatea-de-fizica/>

- The main activities were related to teaching and research. I taught courses of Electronics, Microwave and applications, Physics of Dielectrics, Nano-magneto-dielectrics in electromagnetic fields. Apart of these, in the period 2004-2008 I was vice dean of physics faculty and I had administrative duties, member of the faculty board.

From 1991 to 2003 **Lecturer**

West University of Timișoara, Faculty of Physics,
Bd. V. Pârvan, no. 4, Timișoara, 300244, Romania -
<https://www.uvt.ro/ro/educatie/facultati/facultatea-de-fizica/>

- The main activities were related to teaching, research and management and organization of the scientific department of the faculty;
- PhD in Physics of the Babes-Bolyai University of Cluj-Napoca (1997);
- Scientific Secretary of the Physics Faculty, University of Timisoara (2000-2004).

From 1986 to 1991 Teaching Assistant

University of Timisoara, Faculty of Physics

Bd. V. Parvan, no. 4, 300223 Timisoara, Romania

<https://www.uvt.ro/ro/educatie/facultati/facultatea-de-fizica/>

- The main activities were related to teaching and research. I led laboratory and seminar classes of Electronics, Electricity and Magnetism, Ferrofluids.

From 1979 to 1986 Physics teacher

Agroindustrial High School of Hateg, jud. Hunedoara

- The main activities were related to education and teaching of physics.
- Between 1980-1986 I worked as assistant associate at the Petrosani Mining Institute where I had laboratory activities and research of the ferrofluids.

EDUCATION AND TRAINING

1975 - 1979 BA in Physics

University of Timisoara, Faculty of Physics

- Education and research skills

From 2009 to present PhD supervisor, Physics Field

Order of the Ministry of
Education and Research
no. 112/25.08.1997

PhD - Physics

Babes-Bolyai University of Cluj-Napoca, Faculty of Physics (1997)

- Research skills on:
 - Electromagnetic properties of ferrofluids;
 - Relaxation processes in ferrofluids;
 - Behaviour of some materials and electronic devices in electromagnetic field;
 - Magnetic and dielectric relaxation processes in nano-microstructured systems and ferromagnetic resonance;
 - Propagation of the radiofrequency and microwave electromagnetic field in different systems (with applications as electromagnetic absorbers and electromagnetic shielding).
 - Thermo-electric analysis of electrical conductivity of nanoparticle systems, using the complex impedance measurements;
 - Investigation of electric and magnetic properties in low frequency field of some composite materials consisting by mixing of ferrofluid with silicone rubber.

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

UNDERSTANDING	SPEAKING	WRITING
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	Listening	Reading	Spoken interaction	Spoken production	
English	B1/B2	B1/B2	B1/B2	B1/B2	B1/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 39 years.

Organisational / managerial skills

- Based on my experience as scientific secretary of the Physics Faculty (2000 - 2004), Board Member of the Faculty of Physics of the University of West Timisoara (from 2000 to present); Member of the Senate of West University of Timisoara (from 2016), Chairman of the Committee of Institutional Strategy and Internal Management Control of the Senate of West University of Timisoara (from 2016), Vice Dean of the faculty (2004-2008), Director of Physics Department (2008-2016), Chairman of the Physics Conference TIM-03.....10, from the West University of Timisoara, I gained good organisational and management skills such as:
 - team management
 - team leadership
 - decision making
 - creating and keeping deadlines
 - teamwork
 - coordinating events
 - strategic thinking
 - implementing strategy
 - multitasking
 - delegation
 - project management

Job-related skills

Teaching and my research experience of 40 years allowed me to tackle a range of complex didactical and scientific problems related to the physics and especially on the behaviour of magnetic and dielectric materials in low and high frequency fields, relaxation processes and ferromagnetic resonance in ferrofluids.

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 level of computer use: Word, Excel, Internet, Power Point;
- good command of Origin;
- good command of photo editing software.

Other skills

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

Driving licence Driving licence category B

1.List of publications ISI

1. I.Hrianca, **I.Mălăescu**, "The RF magnetic permeability of statically magnetized ferrofluids", J. Magn. Magn. Mater., 150 no.1 (1995) 131-136.
2. **I.Mălăescu**, I.Hrianca, "Relaxation processes of magnetite-based ferrofluids in rf magnetic fields", J. Magn. Magn. Mater., 157 (1996) 585-586.
3. L. Gabor, **I. Malaescu**, "Research on magnetic liquids filtration", Rev. de Chimie, 47, no. 12 (1996) 1157-1160.
4. **I. Malaescu**, I.Hrianca, L. Gabor, "Study of certain magnetite and mix ferrite magnetic liquids in static and radiofrequency fields", Journal de Physique IV, 7, no. C1 (1997) 563-564.
5. 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. **I.Mălăescu**, C.N.Marin, "Deviation from the superparamagnetic behaviour of fine-particle systems", J. Magn. Magn. Mater 218 (2000) 91-96.
6. **I. Malaescu**, L. Gabor, F. Claici, N. Stefu, "Study of some magnetic properties of ferrofluids filtered in magnetic field gradient", J. Magn. Magn. Mater., 222 no. 1-2 (2000) 8-12.
7. 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.
8. **I. Malaescu**, N. Stefu, L. Gabor, "Relaxation processes and ferromagnetic resonance investigation of ferrofluids with Mn-Zn and Mn-Fe mixed ferrite particles", J. Magn. Magn. Mater., 234 no. 2 (2001) 299-305.
9. **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.
10. **I.Mălăescu**, C.N.Marin, "Dielectric behavior of some ferrofluids in low-frequency fields", Journal of Colloid and Interface Science 251 (2002) 73-77
11. **I.Mălăescu**, "A new method for determination of the effective anisotropy constant of the particles within ferrofluids", Journal of Optoelectronics and Advanced Materials, 5, no. 1 (2003) 233 - 237.
12. 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, no. 1 (2003) 227 - 231.
13. 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.
14. C. N. Marin, **I. Malaescu**, "The Influence of Particle Agglomeration of the Affective Anisotropy Constant of Particles within Magnetic Fluids as Studied by Magnetic Resonance", Rom. Journal Phys., Vol. 50, Nos. 7-8 (2005) 785-793
15. 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.
16. 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.

17. **I. Mălăescu**, C.N. Marin, „*Study of magnetic fluids by means of magnetic spectroscopy*”, Physica B: Condensed Matter, 365 (2005) 134 – 140.
18. 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.
19. 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.
20. 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.
21. 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.
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. 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
26. 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
27. 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
28. 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)
29. P.C. Fannin, C. N. Marin, **I. Malaescu**, N. Stefu, P. Vlăzan, 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)
30. **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
31. 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)
32. R. Totoreanu, **I. Malaescu**, „*The influence of the humidity on the electromagnetic wave propagation parametters in natural cohesive soil samples*”, AIP Conference Proceedings 1472 (2012) , pp. 265-270
33. Cecilia N. Obeada, **I. Malaescu**, „*The temperature effect on the combined Brownian and Neel relaxation processes in a water-based magnetic fluid*”, Physica B-Condensed Matter, 424 (2013) 69-72
34. S. Novaconi, P. Vlăzan, **I. Malaescu**, P. Sfirloaga, R. Badea, „*Doped Bi2Te3 nanostructured semiconductors obtained by ultrasonically hydrothermal method*”, Central European Journal of Chemistry, 11, no. 10 (2013) 1599-1605
35. 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
36. M. Mihai, M. Spunei, **I. Malaescu**, „*Comparison features for proton and heavy ion beams versus photon and electron beams*”, Rom. Rep. in Phys., 66, no. 1 (2014) 212-222
37. M. Mihai, M. Spunei, **I. Malaescu**, „*Experimental results in percentage depth dose (PDD) determination at the extended distances*”, Rom. Rep. in Phys., 66, no. 1 (2014) 157-165
38. R. Totoreanu, **I. Malaescu**, „*Low frequency dielectric behaviour of near surface cohesive soils*”, Rom. Rep. in Phys., 66, no. 3 (2014) 801-811

39. R. Giugiulan, **I. Malaescu**, M. Lungu, N. Strambeanu, "The Clausius-Mossotti factor in low frequency field of the powders resulted from wasted combustion", Rom. Journal of Phys., 59, n0. 7-8 (2014) 862-872
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. 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
42. **I. Malaescu**, C. N. Marin, Marius Spunei, Comparative Study on the Surface Dose of Some Bolus Materials, International Journal of Medical Physics, Clinical Engineering and Radiation Oncology, 4 (2015) 348-352
43. **I. Malaescu**, C. N. Marin, M. Bunoiu, P. C. Fannin, N. Stef, L. Iordaconiu, *The effect of particle concentration on the heating rate of ferrofluids for magnetic hyperthermia*, Analele Universității de Vest din Timisoara, Seria Fizică., LVIII, 2015, p81 - 88, DOI: 10.1515/awutp -2015-0210
44. 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
45. 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.
46. P. Sfirloaga, I. Miron, **I. Malaescu**, C.N. Marin, C. Ianasi, P. Vlăzan, *Structural and physical properties of undoped and Ag-doped NaTaO₃ synthesized at low temperature*, Materials Science in Semiconductor Processing 39 (2015) 721-725
47. 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
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. Vlăzan, 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 (15) (2016) 16744-16748.
50. P. Sfirloaga, **I. Malaescu**, M. Poienar, M.C. Nicolae, D. Malaescu, P. Vlăzan, *Synthesis, structural and electrical properties of NaTaO₃:Cu*, J. Mater. Sci.: Mater. Electron., (2016) DOI 10.1007/s10854-016-5299-2
51. P. Sfirloaga, C. N. Marin, **I. Malaescu**, P. Vlăzan, *The electrical performance of ceramic materials with perovskite structure doped with metallic ions*, Ceramics International (2017) In proof.
52. 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 0.1-20GHz*, Journal of Magnetism and Magnetic Materials 423 (2017) 61-65.
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, DOI: 10.1016/j.mehy.2017.11.004
54. P. Sfirloaga, M. Poienar, **I. Malaescu**, A. Lungu, C. V. Mihali, P. Vlăzan, *Electrical conductivity of Ca-substituted lanthanum manganites*, CERAMICS INTERNATIONAL, 44 (6) (2018) 5823-5828, DOI: 10.1016/j.ceramint.2018.01.029
55. P. Sfirloaga, M. Poienar, **I. Malaescu**, A. Lungu, P. Vlăzan, *Perovskite type lanthanum manganite: Morpho-structural analysis and electrical investigations*, JOURNAL OF RARE EARTHS, 36 (5) (2018) 499-504, DOI: 10.1016/j.jre.2017.10.009
56. **I. Malaescu**, A. Lungu, C. N. Marin, P. Sfirloaga, P. Vlăzan, S. Brindusoiu, M. Poienar, *Temperature dependence of the dynamic electrical properties of Cu_{1-x}Mn_{1-x}O₂ (x=0 and 0.06) cerdnerite materials*, Ceramics International, 44 (10) (2018) 11610-11616, DOI: 10.1016/j.ceramint.2018.03.229
57. Silviu Brindusoiu, Maria Poienar, Catalin Nicolae Marin, Paula Sfirloaga, Paulina Vlăzan, **Iosif Malaescu**, *The electrical conductivity of Fe₃(PO₄)₂·8H₂O materials*, Journal of Materials Science: Materials in Electronics, (2019) 30:15693-15699

58. Marcela Stoia, Cornelia Păcurariu, Ciprian Mihali, **Iosif Mălăescu**, Cătălin Nicolae Marin, Aylin Căpraru, *Manganese ferrite-polyaniline hybrid materials: Electrical and magnetic properties*, *Ceramics International*, 45 (2019) 2725–2735
59. Teodora A. Albu, **Iosif Malaescu**, Alterations of contralateral white matter in glioma and meningioma patients: a numerical diffusion-weighted imaging approach, *Int. J. Clin. Exp. Med.*, 2019;12(3):2575-2582
60. Octavian Madalin Bunoiu, Georgeta Matu, Catalin Nicolae Marin, **Iosif Malaescu**, *Investigation of some thermal parameters of ferrofluids in the presence of a static magnetic field*, *Journal of Magnetism and Magnetic Materials*, 498 (2020) 166132
61. Georgeta Mătu, C. N. Marin, **I. Malaescu**, FREQUENCY AND TEMPERATURE ANALYSIS OF THE CLAUSIUSMOSSOTTI FACTOR OF A KEROSENE-BASED FERROFLUID IN LOW FREQUENCY FIELD, *Journal of Ovonic Research*, 16(2) (2020) 89 - 96
62. D. Lazič, **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*, *Journal of Magnetism and Magnetic Materials*, 502 (2020) 166605
63. Paula Sfirloaga, Gabriela Vlase, Titus Vlase, **Iosif Malaescu**, Catalin Nicolae Marin, Paulina Vlazan, *Silver doping in lanthanum manganite materials: structural and electrical properties*, *Journal of Thermal Analysis and Calorimetry*, <https://doi.org/10.1007/s10973-020-10095-1>
64. C. N. Marin, P. C. Fannin, **I. Malaescu**, Georgeta Mătu, *Macroscopic and microscopic electrical properties of a ferrofluid in a low frequency field*, *Physics Letters A*, 384 (2020) 126786
65. Daniela Susan-Resiga, **I. Malaescu**, Oana Marinica, C.N. Marin, *Magnetorheological properties of a kerosene-based ferrofluid with magnetite particles hydrophobized in the absence of the dispersion medium*, *Physica B*, 587 (2020) 412150
66. C. N. Marin, **I. Malaescu**, Paula Sfirloaga, Alexandrina Teusdea, *Electric and magnetic properties of a composite consisting of silicone rubber and ferrofluid*, *Journal of Industrial and Engineering Chemistry* 101 (2021) 405–413
67. 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* Vol. 17, No. 2, March - April 2021, p. 217 – 223
68. Alexandrina Teusdea, P. C. Fannin, **I. Malaescu**, C. N. Marin, *The effect of a polarizing magnetic field on the dynamic properties and the specific absorption rate of a ferrofluid in the microwave range*, *Soft Materials*, (2021) DOI: 10.1080/1539445X.2021.1974475
69. P. C. Fannin, O. M. Bunoiu, **I. Malaescu**, C. N. Marin, *Magnetically tuning microwave propagation parameters in ferrofluids*, *Eur. Phys. J. E* (2021) 44:83. <https://doi.org/10.1140/epje/s10189-021-00087-w>
70. Alexandrina Teusdea, **I. Malaescu**, Paula Sfirloaga, C. N. Marin, *Electric and Dielectric Properties in Low-Frequency Fields of Composites Consisting of Silicone Rubber and Al Particles for Flexible Electronic Devices*, *Materials*, (2022) 15(6), 2309. <https://doi.org/10.3390/ma15062309>
71. Cristian Casut, **Iosif Malaescu**, Catalin Nicolae Marin, Marinela Miclau, *The Effect of Bi₂O₃ and Fe₂O₃ Impurity Phases in BiFeO₃ Perovskite Materials on Some Electrical Properties in the Low-Frequency Field*, *Materials* **2022**, 15, 4764. <https://doi.org/10.3390/ma15144764>
72. Cristian Casut, Raul Bucur, Nicolae Miclau, **Iosif Malaescu**, Marinela Miclau, *Biphasic BiFeO₃ ceramics based on rhombohedral and tetragonal polymorphs*, *ADVANCES IN APPLIED CERAMICS*, 2022, 121(5–8), 247–254. <https://doi.org/10.1080/17436753.2023.2170618>
73. **Iosif Malaescu**, Madalin O. Bunoiu, Alexandrina Teusdea, Catalin N. Marin, *Investigations on the electrical conductivity and complex dielectric permittivity of a ferrofluid subjected to the action of a polarizing magnetic field*, *Materials Research Bulletin* 164 (2023) 112281
74. Cristian Casut, Raul Bucur, Daniel Ursu, **Iosif Malaescu**, Marinela Miclau, *Increasing Electrical Resistivity of P-Type BiFeO₃ Ceramics by Hydrogen Peroxide-Assisted Hydrothermal Synthesis*, *Materials* **2023**, 16, 3130. <https://doi.org/10.3390/ma16083130>
75. Catalin N. Marin, Iosif Malaescu, *The Effect of Magnetically Induced Local Structure and Volume Fraction on the Electromagnetic Properties of Elastomer Samples with Ferrofluid Droplet Inserts*, *Magnetochemistry* **2024**, 10, 4. <https://doi.org/10.3390/magnetochemistry10010004>

76. **I. Malaescu**, C. N. Marin, P. C. Fannin, *Experimental Investigations on the Ferromagnetic Resonance and Absorbing Properties of a Ferrofluid in the Microwave Range*, *Magnetochemistry* **2024**, 10, 7. <https://doi.org/10.3390/magnetochemistry10020007>
77. Paulina Vlazan, Catalin Nicolae Marin, **Iosif Malaescu**, Gabriela Vlase, Titus Vlase, Maria Poienar, Paula Sfirloaga, *Revealing the Impact of Ga and Y Doping on Thermal and Electrical Behavior of LaMnO₃ Ceramic Materials*, *Appl. Sci.* **2024**, 14, 1546. <https://doi.org/10.3390/app14041546>
78. Paulina Vlazan, Maria Poienar, **Iosif Malaescu**, Catalin N. Marin, Cristian Casut, Paula Sfirloaga, *Exploiting the Bi-doping effect on the properties of NaNbO₃ perovskite-type materials*, *Chemical Physics*, 579 (2024) 112203
79. **Iosif Malaescu**, Paula Sfirloaga, Catalin N. Marin, Madalin O. Bunoiu, Paulina Vlazan, *Experimental Investigations on the Electrical Conductivity and Complex Dielectric Permittivity of Zn_xMn_{1-x}Fe₂O₄ (x = 0 and 0.4) Ferrites in a Low-Frequency Field*, *Crystals* **2024**, 14, 437. <https://doi.org/10.3390/cryst14050437>
80. **Iosif Malaescu**, Paula Sfirloaga, Catalin Nicolae Marin, *Experimental Investigations of the AC-Conductivity in NaTaO₃ Ceramic Materials Doped with Cu and Al Metal Ions*, *Metals* **2024**, 14, 793. <https://doi.org/10.3390/met14070793>
81. Catalin N. Marin, Paul C. Fannin, **Iosif Malaescu**, *Polarizing Magnetic Field Effect on Some Electrical Properties of a Ferrofluid in Microwave Field*, *Magnetochemistry* **2024**, 10, 88. <https://doi.org/10.3390/magnetochemistry10110088>
82. **Iosif Malaescu**, Paula Sfirloaga, Octavian M. Bunoiu, Catalin N. Marin, *A Comparative Analysis of the Electrical Properties of Silicone Rubber Composites with Graphene and Unwashed Magnetite*, *Materials* **2024**, 17, 6006. <https://doi.org/10.3390/ma17236006>
83. **Iosif Malaescu**, Maria Poienar, Catalin N. Marin, *Investigation of the Electrical Properties of Polycrystalline Crednerite CuMn_{1-x}Mg_xO₂ (x = 0–06) Type Materials in a Low-Frequency Field*, *Crystals* **2025**, 15, 184 <https://doi.org/10.3390/cryst15020184>
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1.	<i>Polarizing field and particle concentration dependence of the magnetic loss power in ferrofluids</i> , AIP Conference Proceeding 1131, (2009) p. 81-85	P.C. Fannin, I. Malaescu, N. Stefu, C. N. Marin
2.	<i>Ferrofluid microwave devices with magnetically controlled impedances</i> , AIP Conference Proceeding 1262, (2010) p. 92-97	P.C. Fannin, I. Malaescu, N. Stefu, C. N. Marin, R. Totoreanu
3.	<i>Magnetic properties of the WC-Co cermet powders</i> , AIP Conference Proceeding 1262, (2010) p. 113-117	V. A. Serban, I. Malaescu, A. Ercuta, C. N. Marin, N. Stefu, C. Opris, C. Codrean, D. Utu
4.	<i>A Comparative Study of the Field Dependence of the Properties of Colloidal Suspensions of Nanoparticles and of Magnetic Microspheres</i> , PIERS Proceedings Xian China (2010) 22-26	P. C. Fannin, C. N. Marin, C. Couper, I. Malaescu, N. Stefu
5.	<i>Comparative study of the microwave propagation parameters of some magnetic fluids in the presence of polarizing field</i> , AIP Conference Proceeding 1387, (2011) p. 208-212	I. Malaescu, C. N. Marin, P. C. Fannin, N. Stefu, A. Savici, D. Malaescu
6.	<i>Dry eye syndrome among computer users</i> , AIP Conference Proceedings 1694 (2015) 040011-1 (5pp); doi: 10.1063/1.4937263	Aurora Gajta, DanielaTurkoanje, Iosif Malaescu, Catalin N. Marin, Marie-Jeanne Koos, Biljana Jelcic, Vuk Milutinovi
7.	<i>Comparative Study on the Surface Dose of Some Bolus Materials</i> , International Journal of Medical Physics, Clinical Engineering and Radiation Oncology, 4 (2015) 348-352	I. Malaescu, C. N. Marin, Marius Spunei
8.	<i>Polymeric membranes: Effects of catalyst volume</i>	L. Iordaconiu, I. Malaescu, L. Chirigiu,

	<i>fraction on dielectric relaxation time and crystallites dimensions</i> , Ind Chem 2016, 2:1 GIMAR CONFERENCE 01-02 Feb. 2016, Dubai, UAE http://dx.doi.org/10.4172/2469-9764.1000117	I. Bica
9.	<i>Influence of the Size of Particles on the Magnetic Heating of a Mixed Ferrite</i> , TIM18 PHYSICS CONFERENCE, Book Series: AIP Conference Proceedings, Vol. 2071, Article Number: UNSP 040012, DOI: 10.1063/1.5090079, Published: 2019, Document Type: Proceedings Paper	D. Lazic, P.C. Fannin, P. Sfirloaga, P. Barvinschi, I. Malaescu , V. Socoliuc, C.N. Marin
10.	<i>The Electrical Conductivity of Giniite $Fe_5(PO_4)_4(OH)_3 \cdot 2H_2O$ Materials</i> , AIP Conference Proceedings 2218, 030017 (2020); https://doi.org/10.1063/5.0001856	Silviu Brindusoiu, Paula Sfirloaga, Paulina Vlazan, Paul C. Fannin, Iosif Malaescu, Catalin N. Marin,
11.	Magneto-Optical Transmittance Observed in Magnetorheological Suspensions Films, AIP Conference Proceedings 2218, 030016 (2020); https://doi.org/10.1063/5.0002485	Eugen Anitas, Ioan Bica, Madalin Bunoiu, Iosif Malaescu, Catalin Nicolae Marin, Aurel Ercuta, Maria Balasoiu, Mihai Lungu, Gabriel Pascu
12.	<i>Effect of Fe-doping on the structural, morphological and electrical properties of $LaMnO_3$</i> , AIP Conference Proceedings 2218, 040003 (2020); https://doi.org/10.1063/5.0001173	Paula Sfirloaga, Iosif Malaescu, Catalin Nicolae Marin, Maria Poienar, Paulina Vlazan
13.	<i>The stability of silicone based bolus before and after a radiotherapy treatment</i> , AIP Conference Proceedings 2218, 030018 (2020); https://doi.org/10.1063/5.0001024	Bogdan Ile, Marius Spunei, Iosif Mălăescu, Cătălin N. Marin.

2. Books/courses (in Romanian)

1.	Ferofluide in camp de radiofrecventa Editura Mirton, Timișoara 1998, , ISBN: 973-578-499-8	Iosif Mălăescu 1998
2.	I. Malaescu, „ <i>Materiale dielectrice si aplicatii</i> ”, Curs pentru uzul studentilor, Tipografia UVT, Timisoara 2007	Iosif Mălăescu 2007
3.	Materiale și dispozitive electronice în câmp de înaltă frecvență, Editura Eurobit, Timișoara, 2008, ISBN: 978-973-620-391-6	Iosif Mălăescu 2008
4.	Microunde și tehnologii cu microunde, Editura Universitatii de Vest, Timișoara, 2008, ISBN: 978-973-125-145-5	Iosif Mălăescu 2008
5.	Fizica si tehnologia materialelor dielectrice, Editura Universitatii de Vest, Timișoara, 2008, ISBN: 978-973-125-166-0	Catalin N. Marin Iosif Mălăescu 2008
6.	Elemente de fizica radiațiilor și dozimetrie cu aplicații în radioterapie, Editura Eurobit, Timișoara, 2014	M. Spunei, I. Mălăescu , Maria Mihai, C. N. Marin 2014
7.	Electronică - Culegere de probleme-, Editura Eurobit, Timisoara 2015	Cătălin N. Marin Iosif Mălăescu , 2015
8.	Proprietăți magnetice ale materialelor, Editura Eurobit, Timisoara 2016	Iosif Mălăescu 2016

9.	Dispozitive și circuite electronice. Teme de seminar, Editura Eurobit, Timisoara 2016	Iosif Mălăescu 2016
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Research projects

Nr.	Director / Responsible for research projects worth Vi Euro won through national or international competition	Director/ Responsible
1.	<i>Polarizing field and particle concentration dependence of the magnetic loss power in ferrofluids</i> - JINR Order No. 34/23.01. 2015 item 50 JINR Dubna Rusia - West University of Timisoara, Romania, Theme JINR 04-4-1121-2015/2017	MECS, Autoritatea Națională pentru Cercetare Științifică Responsabil
2.	Analysis of the structural properties and heating rate of the ferrofluids in electromagnetic field - JINR Order No. 96/15.02. 2016 item 34 JINR Dubna Rusia - West University of Timisoara, Romania, Theme JINR 04-4-1121-2015/2017	MECS, Autoritatea Națională pentru Cercetare Științifică Responsabil
3.	<i>Investigation of thermal and structural properties of the ferrofluids in polarizing magnetic field</i> - JINR Order No. 96/15.02. 2016 item 88 JINR Dubna Rusia - West University of Timisoara, Romania, Theme JINR 04-4-1121-2015/2017	MECS, Autoritatea Națională pentru Cercetare Științifică Responsabil
4.	The effect of the particles concentration and of polarizing magnetic field on the thermal and structural properties of the ferrofluids- JINR Order No. 96/15.04. 2017 item 66 JINR Dubna Rusia - West University of Timisoara, Romania, Theme JINR 04-4-1121-2015/2017	MECS, Autoritatea Națională pentru Cercetare Științifică Responsabil
5.	Noi direcții de dezvoltare tehnologică și de utilizare a materialelor nanocompozite avansate (2018-2021) PN-III-P1-1.2-PCCDI-2017-0871 nr. 47PCCDI/2018	PN-III-P1-1.2-PCCDI-2017-0871 Director partener P2 (UVT)

Prof. dr. Iosif Malaescu