

LISTA LUCRĂRIILOR PUBLICATE

TEZA DE DOCTORAT cu titlul, *Cercetări privind comportarea unor materiale la frecvențe înalte*, a fost susținută public în data de 11.06.1997 la Universitatea Babeș-Bolyai din Cluj-Napoca, Titlul de doctor a fost obținut prin Ordinul Ministerului Învățământului nr. 4268 din 23 iulie 1997.

LISTA LUCRĂRIILOR ȘTIINȚIFICE PUBLICATE

a) Lucrări publicate în reviste cotate ISI

1. I.Hrianca, **I. Malaescu**, “*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.Socoliu, „*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. Mălăescu**, "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. Mălăescu**, 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. Mălăescu**, 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. Mălăescu**, 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. Mălăescu**, 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. Mălăescu**, 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. Mălăescu**, 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. Mălăescu**, 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., **Mălăescu**, I., Totoreanu, R., “**Ferrofluid microwave devices with magnetically controlled impedances**”, AIP Conference Proceedings 1262 (2010) pp. 92-97
26. Serban, V.A., **Mălăescu**, 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. Mălăescu**, 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. 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)
- 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. Vlazan, **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. Giugulan, **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, no. 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 Jelicic, 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. Vlazan, *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. 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 (15) (2016) 16744-16748.
50. P. Sfirloaga, **I. Malaescu**, M. Poienar, M.C. Nicolae, D. Malaescu, P. Vlazan, *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. Vlazan, *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. Vlazan, *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. Vlazan, *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. 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, DOI: 10.1016/j.ceramint.2018.03.229
57. Silviu Brindusoiu, Maria Poienar, Catalin Nicolae Marin, Paula Sfirloaga, Paulina Vlazan, **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 Mălaescu**, 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. Lazić, **I. Malaescu**, O.M. Bunoiu, I. Marin, F.G. Popescu, V. Socoliu, 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. Ilie, **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>

b) Lucrări publicate în reviste indexate în baze de date internaționale

1. V.Iusan, **I.Malaescu**, S.Hadgia, E.Tamas, *Instalatie pentru masurarea susceptibilitatii magnetice a ferofluidelor utilizate in tehnologii neconventionale*, Studii si cercetari de fizica, tom 33,nr.8, (1981),761-766
2. I.Hriana, L.Gabor, **I.Malaescu**, A.Ercuta, F.Claici, *Magnetic Properties of a New Technique Stabilized Ferrofluids*, Romanian Reports in Physics, vol. 47, nr. 8-9-10 (1995) 821-825,
3. C. N. Marin, **I. Malaescu**, *The influence of particle agglomerations on the effective anisotropy constant of particles within magnetic fluids as studied by magnetic resonance*, Rom. Journ. Phys., vol.50, nos. 7-8, (2005) 789-797,
4. I.Hriana, C.Marin, **I.Malaescu**, *Low frequency dielectric relaxation in a magnetite-kerosene ferrofluid*, Balkan Physics Letters, vol. 5 supplement (1998), 384-387.
5. 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 Proceeding 1131, (2009) p. 81-85
6. P.C. Fannin, **I. Malaescu**, N. Stefu, C. N. Marin, R. Totoreanu , *Ferrofluid microwave devices with magnetically controlled impedances*, AIP Conference Proceeding 1262, (2010) p. 92-97
7. V. A. Serban, **I. Malaescu**, A. Ercuta, C. N. Marin, N Stefu, C. Opris, C. Codrean, D. Utu *Magnetic properties of the WC-Co cermet powders*, AIP Conference Proceeding 1262, (2010) p. 113-117
8. 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 Xian China (2010) 22-26
9. **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 Proceeding 1387, (2011) p. 208-212

- 10.** Aurora Gajta, Daniela Turkoanje, **Iosif Malaescu**, Catalin N. Marin, Marie-Jeanne Koos, Biljana Jelicic, Vuk Milutinović *Dry eye syndrome among computer users*, AIP Conference Proceedings 1694 (2015) 040011-1 (5pp); doi: 10.1063/1.4937263
- 11.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
- 12.** L. Iordaconiu, **I. Malaescu**, L. Chirigiu, I. Bica, *Polymeric membranes: Effects of catalyst volume fraction on dielectric relaxation time and crystallites dimensions*, Ind Chem 2016, 2:1 GIMAR CONFERENCE 01-02 Feb. 2016, Dubai, UAE
<http://dx.doi.org/10.4172/2469-9764.1000117>
- 13.** D. Lazic, P.C. Fannin, P. Sfirloaga, P. Barvinschi, **I. Malaescu**, V. Socoliu, C.N. Marin, *Influence of the Size of Particles on the Magnetic Heating of a Mixed Ferrite*, 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
- 14.** Silviu Brindusoiu, Paula Sfirloaga, Paulina Vlazan, Paul C. Fannin, **Iosif Malaescu**, Catalin N. Marin, *The Electrical Conductivity of Giniite $Fe_5(PO_4)_4(OH)_3 \cdot 2H_2O$ Materials*, AIP Conference Proceedings 2218, 030017 (2020);
- 15.** Eugen Anitas, Ioan Bica, Madalin Bunoiu, **Iosif Malaescu**, Catalin Nicolae Marin, Aurel Ercuta, Maria Balasoiu, Mihai Lungu, Gabriel Pascu, *Magneto-Optical Transmittance Observed in Magnetorheological Suspensions Films*, AIP Conference Proceedings 2218, 030016 (2020); <https://doi.org/10.1063/5.0002485>
- 16.** Paula Sfirloaga, **Iosif Malaescu**, Catalin Nicolae Marin, Maria Poienar, Paulina Vlazan, *Effect of Fe-doping on the structural, morphological and electrical properties of $LaMnO_3$* , AIP Conference Proceedings 2218, 040003 (2020); <https://doi.org/10.1063/5.0001173>
- 17.** Bogdan Ilie, Marius Spunei, **Iosif Mălaescu**, Cătălin N. Marin, *The stability of silicone based bolus before and after a radiotherapy treatment*, AIP Conference Proceedings 2218, 030018 (2020); <https://doi.org/10.1063/5.0001024>

c) Lucrări publicate în reviste din țară

1. V. Iusan, **I. Malaescu**, *Sedimentarea minereurilor în stare coloidală în prezenta unui gradient de camp magnetic și posibilitatea utilizării ei în separarea substanelor minerale utile*, Lucrările științifice ale Institutului de Mine Petrosani, vol.XV, fascicola a II-a, Mine, Petrosani, 1983, p.58-62
2. V. Iusan, **I. Malaescu**, *Efecte de separare a substanelor minerale utile într-o instalatie magnetica ce functioneaza pe principiul spectrometriei ferofluidice*, Lucrările celei de-a III-a Conferinte Nationale de Magnetism, CFT Iasi, 1983, vol.II. p. 431-436
3. V. Zamfir, **I. Malaescu**, *On the Experimental Dependence of the Input Admitance-Gate Voltage of the MOS Transistors*, Analele Universitatii din Timisoara, Seria Fizica, vol. XXV, (1987), 15-22
4. V. Zamfir, **I. Malaescu**, *Dielectrical Losses in Radiofrequency Field for the Technical Ceramics*, Analele Universitatii din Timisoara, Seria Fizica, vol. XXV, (1987), 23-28,
5. V. Zamfir, **I. Malaescu**, *Parameter Determination of the Equivalent Circuit of the Quartz Resonator*, Analele Universitatii din Timisoara, Seria Fizica, vol. XXVII, (1989), 41-46,

- 6. I. Malaescu**, *Determination of the Ferrofluid Magnetization by the Capillary Ascent Method*, Analele Universitatii din Timisoara, Seria Fizica, vol. XXVII, (1989), 47-50
- 7. V. Iusan, I. Malaescu**, *Cercetari de fizica fluidelor magnetice si separarea magnetofluidica a substantelor minerale utile*, Mine, Petrol, Gaze, anul XL, nr. Special, (1989), p 70-73
- 8. I. Hriana, I. Malaescu**, *Asupra comportarii ferofuidelor in camp de inalta frecventa*, Lucrarile Conferintei de Masini Hidraulice si Hidrodinamica, vol.6, Lichide Magnetice, Timisoara 1990, p.53-58
- 9. I. Hriana, I. Malaescu**, *Dielectric Loss in the RF Field at Veneers Used in Wood-Working Industry*, Analele Universitatii din Timisoara, seria Stiinte Fizice, vol. XXIX, (1992), 79-87
- 10. C. N. Marin, I. Malaescu**, *Experimental study of dielectric losses in magnetite-kerosene ferrofluids*, Analele Universitatii din Timisoara, Seria Stiinte Fizice, vol. XXXIII, (1996), 62-67
- 11. I. Malaescu**, G. Ardelean, *Experimental Dependence of Input Admitance on Gate Voltage, in RF Field for MOS-transistor*, Analele Universitatii din Timisoara, Seria Stiinte Fizice, vol. XXXIII, (1996), 68-72
- 12. I. Hriana, I. Malaescu**, C. N. Marin, N. Stefu, *Magnetic Relaxation Processes in Radiofrequency Field for Dispersed Monodomenic Particles*, Analele Univ. de Vest din Timisoara, Seria Stiinte Fizice, vol. XXXVI, (1997)17-28
- 13. I. Malaescu**, L. Gabor, F. Claici, N. Stefu, *Preparation of ferofuids with magnetite and mixed ferrite particles and characterization in a radiofrequency field*, Analele Universitatii de Vest din Timisoara, Seria Stiinte Fizice, vol. XXXVIII, (1998), 90-95
- 14. I. Malaescu**, *Dielectric permitivity and magnetic susceptibility of the ferofuid in low frequency field*, Analele Universitatii de Vest din Timisoara, Seria Stiinte Fizice, vol. XXXVIII, (1998) 102-105
- 15. I. Hriana, I. Malaescu**, N. Stefu, F. Claici, *Behavior in Radiofrequency Field and Magnetic Resonance of Ferrofluids*, Analele Universitatii de Vest din Timisoara, Seria Stiinte Fizice, vol. 40, (1999), 34-42
- 16. I. Malaescu**, L. Gabor, N. Stefu, *Static and dynamic properties of ferrofluids with mixed ferrite particles*, Analele Universitatii de Vest din Timisoara, Seria Stiinte Fizice, vol. 43, (2002), 90-92
- 17. I. Malaescu**, L. Gabor, C. N. Marin, *Ferrimagnetic resonance of the ferrofluids filtered in magnetic field*, Analele Universitatii de Vest din Timisoara, Seria Științe Fizice, vol. 43, (2002), 96-102
- 18. N. Stefu, L. Gabor, I. Malaescu**, *Obtaining method and characterization of the ferrofluids with mixed ferrite particles*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 44, (2003), 22-27
- 19. I. Malaescu**, P. C. Fannin, C. N. Marin, *Determination of the anisotropy constant of nanoparticles by means of magnetic resonance measurements*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 45, (2004), 51-56
- 20. I. Malaescu**, L. Gabor, C. N. Marin, N. Stefu, *Contributions to the obtaining and the characterization of some magnetic liquids*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 45, (2004), 143-147
- 21. I. Malaescu**, P.C.Fannin, C.N.Marin, *On the ratio between the maximum absorption frequency and the resonance frequency of composite magnetic fluids*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 46 (2005) 157-162

- 22.** N. Stefu, P.C.Fannin, **I. Malaescu**, C.N.Marin, *Study on the dielectric properties of the ferrofluids in high frequency field*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 47 (2005) 35-41
- 23.** **I. Malaescu**, C.N.Marin, A. Lucaci, E. Preda, I. Nicoara, *Determination of the particle concentration in diluted magnetic fluids using FT-IR spectrometry*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 46 (2005) 120-124
- 24.** I. Bica, **I. Malaescu**, C.N.Marin, B. Vatzulik, A. Pacurar, Oana Andrei, *Cavitational iron microparticles generation by plasma procedures*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 50 (2007) 29-38
- 25.** P. C. Fannin, C. N. Marin, **I. Malaescu**, N. Stefu, *Microwave loss power in composite magnetic fluids*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 52 (2008) 51-55
- 26.** **I. Malaescu**, P. C. Fannin, C. N. Marin, N. Stefu, *Magnetic and dielectric behavior of magnetic fluids in electromagnetic field*, Studia Universitatis Babes-Bolyai, Physica LV, 1 (2010) 73-83
- 27.** **I. Malaescu**, Antoanetta Lungu, C. N. Marin, Paulina Vlăzan, Paula Sfirloagă, *Complex impedance of manganese ferrite powders obtained by two different methods*, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 58 (2015) 14-26
- 28.** **I. Malaescu**, C. N. Marin, M. Bunoiu, P. C. Fannin, N. Stefu, L. Iordaconiu, The effect of particle concentration on the heating rate of ferrofluids for magnetic hyperthermia, Analele Universitatii de Vest din Timisoara, Seria Fizica, vol. 58 (2015) 81-88
- 29.** **I. Malaescu**, C. N. Marin, M. Spunei, Comparative study on the surface dose of some bolus materials, Internaional Journal of Medical Physics, Clinical Engineering and Radiatton Oncoloy, 4 (2015) 348-352.

LISTA LUCRĂRILOR ȘTIINȚIFICE COMUNICATE

a) la conferințe internaționale

1. I. Hriana, **I. Malaescu**, "Relaxation Processes of Magnetite-Based Ferrofluids in RF Magnetic Field", 6th European Magnetic Materials and Applications Conference (EMMA), Viena, 4-8 sept. 1995
2. **I. Malaescu**, I. Hriana, L. Gabor, "Study of certain magnetite and mix ferrite magnetic liquids in static and R.F. fields", 7th International Conference on Ferrites, Bordeaux, France, sept. 3-6, 1996
3. I. Hriana, **I. Malaescu**, C. N. Marin, "Low Frequency Dielectric Relaxation Processes in a Magnetite-kerosene Ferrofluid", 3rd General Conference of the Balkan Physical Union, Cluj-Napoca, 2-5 sept. 1997
4. I. Hriana, **I. Malaescu**, F. Claici, C. N. Marin, "The influence of Particles Concentration in Ferrofluids on the Broadening of the Magnetic Rezonance Line", Eight International Conference on Magnetic Fluids, Timisoara, 29 iunie-3 iulie, 1998
5. **I. Malaescu**, I. Hriana, "Relaxation Processes in Ferrofluids in Radiofrequency Field", Eight International Conference on Magnetic Fluids, Timisoara, 29 iunie-3 iulie, 1998

6. I. Malaescu, L. Gabor, N. Stefu, "Obtaining of the Ferrofluids with Magnetite and Mix Ferrite Particles and Characterisation in Radiofrequency Field", Eight International Conference on Magnetic Fluids, Timisoara, 29 iunie-3 iulie, 1998
7. I. Malaescu, C. N. Marin, "Dependence on temperature of the activation energy in the dielectric relaxation processes for ferrofluids in low frequency field", 9th International Conference on Magnetic Fluids, Bremen, Germany, 23 –27 July, 2001
8. C. N. Marin, I. Malaescu, "", 9th International Conference on Magnetic Fluids, Bremen, Germany, 23 –27 July, 2001
9. I. Mălăescu, C.N.Marin, „The influence of particle agglomerations on the effective anisotropy constant of particles within magnetic fluids as measured by magnetic resonance,“ 5th International Balkan Workshop on Applied Physics, 5-7 iulie 2004, Constanta, Romania
10. P.C.Fannin, C.N.Marin, I. Mălăescu, A.T.Giannitsis, "Microwave absorption of composite magnetic fluids", 10th International Conference on Magnetic Fluids, Guaruja, Sao Paulo, Brazilia, 2-6 august, 2004.
11. P.C.Fannin, I. Mălăescu, C.N.Marin, "The effective anisotropy constant of particles within magnetic fluids as measured by magnetic resonance", 10th International Conference on Magnetic Fluids, Guaruja, Sao Paulo, Brazilia, 2-6 august, 2004.
12. P. C. Fannin , I. Malaescu , C. N. Marin, Magnetic relaxation and ferromagnetic resonance in magnetic fluids, 6th International Balkan Workshop on Applied Physics, July 5-7, 2005, Constanta, Romania (**invited lecture**)
13. P. C. Fannin, C. Mac Oireachtaigh, I. Malaescu , C. N. Marin, Investigation of magnetic fluids exhibiting field induced absorption peaks in the susceptibility spectra, 6th International Balkan Workshop on Applied Physics, July 5-7, 2005, Constanta, Romania (**invited lecture**)
14. I. Malaescu , C. N. Marin, P. C. Fannin, Investigation of the dynamic properties of magnetic fluids using the ferromagnetic resonance, 7th International Balkan Workshop on Applied Physics, July 5-7, 2006, Constanta, Romania (**Invited lecture**)
15. P. C. Fannin, C. N. Marin, I. Malaescu , A comparative study of the field dependence of the properties of colloidal suspensions of nanoparticles and on magnetic spheres, 9th International Balkan Workshop on Applied Physics, July 7-9, 2008, 15.30-16.00, 7 iulie 2008, Constanta, Romania (**Invited lecture**)
16. P. C. Fannin, C. N. Marin, I. Malaescu , Determination of spectroscopic splitting factor of ferromagnetic nanoparticles in magnetic fluids, 9th International Balkan Workshop on Applied Physics, July 7-9, 2008, 7 iulie 2008, Constanta, Romania
17. P. C. Fannin, I. Malaescu, C. N. Marin, C. Couper, N. Stefu, On the utility of high-frequency measurements of magnetic fluids, 10th International Balkan Workshop on Applied Physics, July 6-8, 2009, Constanta, Romania (**Invited lecture**)
18. P. C. Fannin, C. N. Marin, I. Malaescu, N. Stefu, Low frequency magnetic loss power in magnetic fluids, 10th International Balkan Workshop on Applied Physics, July 6-8, 2009, Constanta, Romania
19. I. Malaescu, C. N. Marin, N. Stefu, P. C. Fannin, Study of microwave propagation parameters in magnetic fluids, 10th International Balkan Workshop on Applied Physics, July 6-8, 2009, Constanta, Romania
20. 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, Progress in Electromagnetics Research Symposium, Xi'an, China, March 22-26, 2010

- 21.** A. Savici, **I. Malaescu**, C. N. Marin, D. Malaescu, The temperature effect of the electromagnetic properties of magnetic fluids in low-frequency field, 12th International Balkan Workshop on Applied Physics, July 6-8, 2011, Constanta, Romania (Book of abstracts, ISBN 078-973-614-645-9)
- 22.** Georgeta Matu, Antoanetta Lungu, **I. Malaescu**, Paulina Vlazan, Paula Sfirloaga, O. M. Bunoiu, C. N. Marin, Thermal analysis of the electrical properties of Zn-substituted and un-substituted manganese ferrite, 28th Symposium on Thermal Analysis and Calorimetry – Eugen Segal – on the Commision for thermal analysis and Calorimetry (CATCAR28) &2nd Symposium on Thermal Analysis and Calorimetry of Moldova (MoldTAC2), Timisoara 9-10 mai 2019

b) la conferinte nationale

- 1.** V. Iusan, **I. Malaescu**, S. Hadgia, E. Tamas, “*Instalatie pentru masurarea susceptibilitatii magnetice a ferofluidelor utilizate in tehnologii neconventionale*”, Colocviul tineretului pe probleme de fizica si domenii conexe, Bucuresti 22-23 dec. 1980
- 2.** V.Iusan, **I. Malaescu**, “*Efectul timpului asupra proprietatilor magnetice ale ferofluidelor de tip P-AO, utilizate in tehnologii neconventionale*”, Colocviul tineretului pe probleme de fizica si domenii conexe, Bucuresti, 16-17 martie, 1982
- 3.** V. Zamfir, I. Hrianca, **I.Malaescu**, “*Pierderi dielectrice in camp de radiofrecventa la furnire utilizate in industria de prelucrare a lemnului*”, A 11-a Sesiune Anuala de Comunicari a Institutului Central de Fizica, Progrese in Fizica, Oradea 5-7 octombrie, 1989
- 4.** **I.Malaescu**, I. Hrianca, E. Tataru, “*Asupra unor proprietati dielectrice si magnetice ale ferofluidelor in camp de inalta frecventa*”, Conferinta Nationala de Fizica, Cluj-Napoca, 24-27 octombrie, 1990
- 5.** I.Hrianca, **I.Malaescu**, “*Permeabilitatea magnetica in camp de radiofrecventa a ferofluidelor magnetizate static*”, The IV-th Workshop on Magnetic Fluids and Applications, Timisoara, 30 iun. - 1 iulie 1994
- 6.** Hrianca, **I.Malaescu**, L.Gabor, A.Ercuta, F.Claici. “*Superparamagnetic Behaviour of the Ferrofluids Obtained by Hydrophobization in Absence of Dispersion Medium*”, A 4-a Conferinta de Materiale Magnetice si Supraconductoare, Cluj-Napoca, 20-21 oct. 1994
- 7.** L. Gabor, C. Pacurariu, **I. Malaescu**, “*Prepararea si caracterizarea unor ferofluide cu particule de ferite mixte*”, Zilele Academice Timisene, Timisoara, 25-27 mai 1995
- 8.** L. Gabor, **I. Malaescu**, D. Gabor, “*Lichide magnetice cu particule de ferite mixte*”, Seminarul National de Inginerie Chimica, Timisoara, 25-27 mai 1996
- 9.** **I. Malaescu**, I. Hrianca, M. Morariu, F. Claici “*Relaxation Processes and Magnetic Resonance in Ferrofluids*” , The 5-rd Conference on Magnetic Materials and Supraconductors , Cluj-Napoca , 12-13 sept.1996
- 10.** Hrianca, **I. Malaescu**, F. Claici, C. N. Marin, “*Complex permeability of polymer composite ferrites*”, The 5-rd Conference on Magnetic Materials and Supraconductors, Cluj-Napoca , 12-13 sept.1996
- 11.** I.Hrianca, **I.Mălăescu**, C.N.Marin, N.Ştefu, “*Magnetic relaxation processes in radiofrequency field for dispersed monodomenic particles*”, Sesiunea Anuală de Comunicări Științifice a Universității din Oradea 1997.

- 12.** I. Malaescu, N. Stefu, L. Gabor, "Study of static and dynamic properties of ferrofluids with Mn-Zn and Mn-Fe mixed ferrite ferrite particles", The 3-rd Conference on Condensed Matter Physics, Timisoara 17-19 sept.1999
- 13.** I.Hriana, I.Malaescu, C. Caizer, F. Claici, N. Stefu, St. Novaconi, "Magnetic properties of magnetite particles processed in inductive plasmas", The 3-rd Conference on Condensed Matter Physics, Timisoara 17-19 sept.1999
- 14.** I. Malaescu, L. Gabor, C. N. Marin, "Ferrimagnetic resonance of the ferrofluids filtered in magnetic field", Sesiunea Anuala de Comunicari Stiintifice a Facultatii de Fizica, Timisoara, 23-24 noiembrie 2001
- 15.** I. Malaescu, N. Stefu, L. Gabor, "Static and dynamic properties of ferrofluids with mixed ferrite particles", Sesiunea Anuala de Comunicari Stiintifice a Facultatii de Fizica, Timisoara, 23-24 noiembrie 2001
- 16.** P.C.Fannin, I.Mălăescu, C.N.Marin, "On the effective anisotropy constant of particles within ferrofluids as measured by magnetic resonance", Sesiunea Anuală de Comunicări Științifice a Facultății de Fizică a Universității de Vest, cu Participare Internațională, Timișoara, 29-30 noiembrie 2002.
- 17.** I. Malaescu, "A new method for determination of the effective anisotropy constant of the particles within ferrofluids", International Conference on Advanced Materials and Structures (AMS 2002), Timisoara, 19-20 September, 2002
- 18.** I. Malaescu, L. Gabor, N. Stefu, "Magnetic properties of the ferrofluids with mixed ferrite particles", International Conference on Advanced Materials and Structures (AMS 2002), Timisoara, 19-20 September, 2002
- 19.** C. N. Marin, I. Malaescu, V. Socoliuc, "Study of the interparticle magnetic interaction effect on magnetic resonance line in ferrofluids", International Conference on Advanced Materials and Structures (AMS 2002), Timisoara, 19-20 September, 2002
- 20.** P. C. Fannin, I. Malaescu, "On the effective anisotropy constant of particles whithin ferrofluids as measured by magnetic resonance", Sesiunea Anuala de Comunicari Stiintifice a Facultatii de Fizica, cu participare Internationala, Timisoara, 29-30 noiembrie 2002 9 (invited paper)
- 21.** P. C. Fannin, C. N. Marin, I. Malaescu, "The polarizing field effect on the ratio between the frequency of maximum absorbtion and the resonance frequency for magnetic liquids", Sesiunea Anuala de Comunicari Stiintifice a Facultatii de Fizica, cu participare Internationala, Timisoara, 29-30 noiembrie 2002
- 22.** I. Malaescu, N. Stefu, "The effect of the radiofrequency field on the input admittance of the field effect transistors", Sesiunea Anuala de Comunicari Stiintifice a Facultatii de Fizica, cu participare Internationala, Timisoara, 29-30 noiembrie 2002
- 23.** P. C. Fannin, C. N. Marin, I. Malaescu, "On the effective anisotropy field of particles within composite magnetic fluids", Physics Conference TIM-03, Timisoara, 28-29 noiembrie 2003
- 24.** I. Malaescu, C. N. Marin, "Magnetic relaxation spectroscopy for colloidal stabilization analysis of magnetic fluids in zero magnetic fields", Physics Conference TIM-03, Timisoara, 28-29 noiembrie 2003
- 25.** N. Stefu, L. Gabor, I. Malaescu, "Obtaining method and characterisation of the ferrofluids with mixed ferrite particles", Physics Conference TIM-03, Timisoara, 28-29 noiembrie 2003
- 26.** P.C.Fannin, I.Mălăescu, C.N.Marin, "On the effective anisotropy field of particles within composite magnetic fluids", Sesiunea Anuală de Comunicări Științifice a Facultății de Fizică a Universității de Vest, cu Participare Internațională, Timișoara, 28-29 noiembrie 2003.

- 27.I.Mălăescu**, C.N.Marin, "Magnetic relaxation spectroscopy for colloidal stabilization analysis of magnetic fluids in zero polarizing fields", Sesiunea Anuală de Comunicări Științifice a Facultății de Fizică a Universității de Vest, cu Participare Internațională, Timișoara, 28-29 noiembrie 2003.
- 28.I. Mălăescu**, C. N. Marin, Magnetic spectroscopy in study of magnetic fluids Annual Physics Conference Petrosani, 13-14 May 2004 .
- 29.I. Mălăescu**, P. C. Fannin, C. N. Marin Determination of the anisotropy constant of nanoparticles by means of magnetic resonance measurements, Physics Conference TIM-04, Timișoara, November 26th – 27th, 2004
- 30.I. Mălăescu**, P. C. Fannin, C. N. Marin On the ratio between the maximum absorption frequency and the resonance frequency of composite magnetic fluids Physics Conference TIM-05, Timișoara, November 26th – 27th, 2005
- 31.I. Mălăescu**, C. N. Marin, A. Lucaci, E. Preda and I. Nicoara, " Determination of particle concentration in diluted magnetic fluids by means of FT-IR spectrometry", Physics Conference TIM-05, Timișoara, November 26th – 27th, 2005
- 32.N. Ștefu**, P. C. Fannin, **I. Mălăescu**, C. N. Marin, Study on the dielectric properties of the ferrofluids in high frequency field, Physics Conference TIM-05, Timișoara, November 26th – 27th, 2005
- 33.P.C.Fannin, I. Mălăescu**, C.N.Marin, N. Stefu, Power dissipation in magnetic fluids in microwave range, Physics Conference Tim-06, Timisoara, November 24th- 25th, 2006.
- 34.P.C.Fannin, I. Mălăescu**, N. Stefu, C.N.Marin, Dependence on the frequency and magnetic polarizing field of the complex dielectric permittivity of the magnetic fluids in microwave range, Physics Conference Tim-06, Timisoara, November 24th- 25th, 2006.
- 35.P.C.Fannin, C.N.Marin, I. Mălăescu**, N. Stefu, The effect of the polarizing magnetic field and of the partial immobilization of particles on the loss power in magnetic fluids, Physics Conference Tim-06, Timisoara, November 24th- 25th, 2006.
- 36.I. Mălăescu**, P.C.Fannin, C.N.Marin, N.Stefu, Magnetic and dielectric behaviour of magnetic fluids in electromagnetic field, National Conference on Applied Physics, December 8-9 2006, Iasi, Romania (**Invited lecture**)
- 37.Mălăescu**, P.C.Fannin, C.N.Marin, N.Stefu, A study of magnetic fluid hyperthermia with application to the cancer treatment, National Conference on Applied Physics, December 8-9 2006, Iasi, Romania
- 38.P.C. Fannin, I. Mălăescu**, C.N.Marin, N. Stefu, Specific loss in magnetic fluids in microwave range, Physics Conference Tim-07, Timisoara, November 23th - 24th, 2007.
- 39.P.C. Fannin, I. Mălăescu**, C.N.Marin, N. Stefu, Frequency and field dependence of the electromagnetic field propagation constant in magnetic fluids in microwave range, Physics Conference Tim-07, Timisoara, November 23th - 24th, 2007.
- 40.P.C. Fannin, I. Mălăescu**, C.N.Marin, The spectroscopic splitting factor of nanoparticles in magnetic fluids, Physics Conference Tim-07, Timisoara, November 23th - 24th, 2007.
- 41.T. Butunoi, I. Mălăescu**, Dielectric losses in radiofrequency field for wheat grain, Physics Conference Tim-07, Timisoara, November 23th - 24th, 2007.
- 42.P.C. Fannin, I. Mălăescu**, N. Stefu, C.N.Marin, Polarizing field and particle concentration dependence of the magnetic loss power in ferrofluids, Physics Conference Tim-08, Timisoara, November 28th- 29th, 2008.
- 43.P.C. Fannin, C.N.Marin, I. Mălăescu**, N. Stefu, Microwave loss power in composite magnetic fluids, Physics Conference Tim-08, Timisoara, November 28th- 29th, 2008.

- 44.**P.C. Fannin, **I. Malaescu**, C.N.Marin, N. Stefu, *Frequency and field dependence of the refractive index of magnetic fluids in microwave range*, Physics Conference Tim-08, Timisoara, November 28th- 29th, 2008.
- 45.****I. Malaescu**, C.N.Marin, N. Stefu, P.C. Fannin, *Tunable attenuation and reflection of microwaves in magnetic fluids*, Physics Conference Tim-09, Timisoara, November 27th- 28th, 2009.
- 46.**P.C. Fannin, N. Stefu, C.N.Marin, **I. Malaescu**, R. Totoreanu, *Ferrofluid microwave devices with magnetically controlled impedances*, Physics Conference Tim-09, Timisoara, November 27th- 28th, 2009.
- 47.**P.C. Fannin, **I. Malaescu**, R. Totoreanu, N. Stefu, C.N.Marin, *The effect of the polarizing field on the microwave propagation parameters in ferrofluids*, Physics Conference Tim-09, Timisoara, November 27th- 28th, 2009.
- 48.**P.C. Fannin, C.N.Marin, **I. Malaescu**, N. Stefu, Paulina Vlazan, St. Novaconi, Paula Sfirloaga, Simona Popescu, *Microwave absorbent properties of cobalt ferrote nanopowders obtained by the hydrothermal and coprecipitation methods*, Physics Conference Tim-09, Timisoara, November 27th- 28th, 2009.
- 49.**P.C. Fannin, C.N.Marin, **I. Malaescu**, N. Stefu, St. Novaconi,Paulina Vlazan, Mihaela Vasile, Simona Popescu, *Precursor's concentration effect on the microwave magnetic properties of oxidic compounds with Zn-ferrite*, Physics Conference Tim-09, Timisoara, November 27th- 28th, 2009.
- 50.**V. A. Serban, **I. Malaescu**, A. Ercuta, C. N. Marin, , C. Opris, C. Codreanu, D. Utu, *Magnetic properties of WC-cobalt cermet systems*, Physics Conference Tim-09, Timisoara, November 27th- 28th, 2009.
- 51.**R. Totoreanu, **I. Malaescu**, C. N. Marin, *Dielectric and geotechnical properties of some characteristic soil samples from the Timis plain region*, Physics Conference Tim-10, Timisoara, November 25th- 27th, 2010.
- 52.**P.C. Fannin, **I. Malaescu**, C.N.Marin, N. Stefu, D. Malaescu, *Microwave absorbent properties of composite magnetic fluids*, Physics Conference Tim-10, Timisoara, November 25th- 27th, 2010.
- 53.**Paulina Vlazan, St. Novaconi, A. Ercuta, C.N.Marin, **I. Malaescu**, A. Bucur, Paula Sfirloaga, N. Stefu, *Synthesis and characterization of CuFe₂O₄ nanoparticles prepared by the hydrothermal ultrasonically assisted method*, Physics Conference Tim-10, Timisoara, November 25th- 27th, 2010.
- 54.**St. Novaconi, **I. Malaescu**, Paulina Vlazan, Paula Sfirloaga, A. Ercuta, I. Badea, C N. Stefu,,N.Marin, *Synthesis of nano-structured Bi₂Te₃ and Zn₄Sb₃ semiconductor for thermal energy recovery*, Physics Conference Tim-10, Timisoara, November 25th- 27th, 2010.
- 55.**P.C. Fannin, C.N.Marin, **I. Malaescu**, A. Ercuta, P. Barvinschi, Paula Sfirloaga, *Investigation of a magnetic fluid exhibiting double absorption peak in the microwave susceptibility spectrum*, Physics Conference Tim-10, Timisoara, November 25th- 27th, 2010.
- 56.****I. Malaescu**, C.N.Marin, St. Novaconi, Paula Sfirloaga, N. Stefu, A. Ercuta, *Thermo-electric properties of nanoparticles Bi₂Te₃ and Zn₂Sb₃ semiconductors for applications in clean energy*, Physics Conference Tim-10, Timisoara, November 25th- 27th, 2010.
- 57.**R. Totoreanu, **I. Malaescu**, C. N. Marin, Paula Sfirloaga, *The influence of the grain size and specific surface on the dielectric permittivity of sands in low frequency field*, Physics Conference Tim-11, Timisoara, November 24th- 27th, 2011.

- 58.I. Malaescu**, St. Novaconi, C. Seitan, Paula Sfirloaga, Paula Vlazan, D. Malaescu, A. Ercuta, C.N.Marin, *Thermo-electric properties of sintered Bi₂Te₃ semiconductors*, Physics Conference Tim-11, Timisoara, November 24th- 27th, 2011.
- 59.C.N.Marin, I. Malaescu**, P. C. Fannin, A. Ercuta, N. Stefu, Paula Vlazan, St. Novaconi, D. Malaescu, *Electromagnetic interference shielding efficiency of some magnetic paints*, Physics Conference Tim-11, Timisoara, November 24th- 27th, 2011.
- 60.I. Malaescu**, C. Obeada, P.C. Fannin, C.N.Marin, P. Barvinschi, *The temperature dependence of the magnetic susceptibility of magnetic fluids in low frequency field*, Physics Conference Tim-11, Timisoara, November 24th- 27th, 2011.
- 61.I. Malaescu**, A. Savici, P.C. Fannin, C.N.Marin, *Low frequency polarizability of colloidal nanoparticle from magnetic fluids*, Physics Conference Tim-11, Timisoara, November 24th- 27th, 2011.
- 62.C.N.Marin, P.C. Fannin, I. Malaescu**, *Polarizing field resolved magnetic susceptibility spectra of ferrofluids*, Physics Conference Tim-13, Timisoara, November 21th- 24th, 2013 and 2013 JINR-UVT School Small Angle Neutron Scattering, November 25th- 26th, 2013
- 63.I. Malaescu**, P.C. Fannin, C.N.Marin, A. Savici, *Effective heat capacity and heating rate of ferrofluids*, Physics Conference Tim-13, Timisoara, November 21th- 24th, 2013 and 2013 JINR-UVT School Small Angle Neutron Scattering, November 25th- 26th, 2013
- 64.** A. Savici, **I. Malaescu**, C.N.Marin, *Experimental study of the thermal conductivity of magnetic fluids*, Physics Conference Tim-13, Timisoara, November 21th- 24th, 2013
- 65.** Antoanetta Lungu, Paulina Vlazan, **I. Malaescu**, C.N.Marin, Paula Sfirloaga, *Electric properties of manganese ferrites obtained by different methods*, Physics Conference Tim-13, Timisoara, November 21th- 24th, 2013
- 66.** Paula Sfirloaga, I. Miron, **I. Malaescu**, C. N. Marin, M. Poienar, D. Malaescu, Paula Vlazan, *Physico-chemical characterization of NTaO₃ synthesized by ultrasonic method with immersed sonotrode*, Physics Conference Tim-14, Timisoara, November 20th- 22th, 2014.
- 67.** Antoanetta Lungu, **I. Malaescu**, C.N.Marin, Paulina Vlazan, Paula Sfirloaga, *Complex impedance of manganese ferrites powders obtained by different methods*, Physics Conference Tim-14, Timisoara, November 20th- 22th, 2014
- 68.** L. Iordăconiu, P. C. Marin, **I. Malaescu**, C.N.Marin, *Polarizing field effect on the effective reflection coefficient of ferrofluids*, Physics Conference Tim-14, Timisoara, November 20th- 22th, 2014
- 69.** M. Spunei, **I. Malaescu**, C.N.Marin, *Sample thickness effect on the transmitted dose through some absorbent materials*, Physics Conference Tim-14, Timisoara, November 20th- 22th, 2014
- 70.** Aurora Gajta, Daniela Turkoanje, **I. Malaescu**, C.N.Marin, Marie Jeanne Koss, *Dry eye syndrome during computer usage*, Physics Conference Tim-14, Timisoara, November 20th- 22th, 2014
- 71.I. Malaescu**, I. Bica, L. Iordăconiu, C.N.Marin, P.C. Fannin, *Broadband absorbing properties of some silicone composite membranes*, Physics Conference Tim-15-16, Timisoara, May 26th- 28th, 2016
- 72.I. Malaescu**, C.N.Marin, P.C. Fannin, *The specific absorption rate (SAR) of ferrofluids*, Physics Conference Tim-15-16, Timisoara, May 26th- 28th, 2016
- 73.** D. Malaescu, Paula Sfirloaga, Paul Barvinschi, Paulina Vlazan, C. N. Marin, I. Malaescu, *Study of some physical properties of aluminum or cooper doped NaTaO₃ powder samples*, Physics Conference Tim-15-16, Timisoara, May 26th- 28th, 2016

- 74.** Aurora Gajta, Daniela Turkoanje, Alecsandra Triplicaa, **I. Malaescu**, C.N.Marin, Marie Jeanne Koss, C. Muntean, *Tear ferning test and Ph of the tears at cell phone users*, Physics Conference Tim-14, Timisoara, May 26th- 28th, 2016
- 75.** C.N.Marin, P.C. Fannin, **I. Malaescu**, G. Raj, G. Turi, *Changes in the magnetic susceptibility spectrum of ferrofluids by magnetic shaking*, Physics Conference Tim-15-16, Timisoara, May 26th- 28th, 2016
- 76.** D. Malaescu, Maria Poienar, Antoanetta Lungu, **I. Malaescu**, Paula Sfirloaga, Paulina Vlazan, A. Dabici, C.N.Marin, S. Brindusoiu, *The AC-conductivity of crednerite Cu_{1+x}Mn_{1-x}O₂ (x=0 and 0.06)*, Physics Conference Tim-17, Timisoara, May 25th- 27th, 2017
- 77.** P.C. Fannin, **I. Malaescu**, C.N.Marin, *The influence of the preheating of ferrofluids on the specific loss power*, Physics Conference Tim-17, Timisoara, May 25th- 27th, 2017
- 78.** D. Lazic, P.C. Fannin, V. Socoliu, P. Sfirloaga, P. Barvinschi, **I. Malaescu**, C. N. Marin, *The influence of the size of particles on magnetic heating of a mixed ferrite*, Physics Conference Tim-18, Timisoara, May 24th- 26th, 2018
- 79.** C.N.Marin, **I. Malaescu**, I. Bica, M. Bunoiu, G. Pascu, *Shielding effectiveness of some magnetic elastomer membranes*, Physics Conference Tim-18, Timisoara, May 24th- 26th, 2018
- 80.** M. Bunoiu, I. Bica, **I. Malaescu**, C. N. Marin, M. Lungu, G. Pascu, Larisa M.E. Chirigiu, *Planar capacitors with electrically capacitance controlled by the magnetic field*, Physics Conference Tim-18, Timisoara, May 24th- 26th, 2018
- 81.** Paula Sfirloaga, **I. Malaescu**, C.N.Marin, Paulina Vlazan, Maria Poienar, *The impact of Pd substitution on the physical properties of LaMnO₃*, Physics Conference Tim-18, Timisoara, May 24th- 26th, 2018
- 82.** **I. Malaescu**, Daniela Susan-Resiga, C.N.Marin, P. C. Fannin, *Thermal conductivity and rheological behavior of ferrofluids in polarizing magnetic field*, Physics Conference Tim-18, Timisoara, May 24th- 26th, 2018
- 83.** P. C. Fannin, **I. Malaescu**, C.N.Marin, Georgeta Matu, *TMacroscopic and microscopic electrical properties of a ferrofluid in low frequency field*, Physics Conference Tim-19, Timisoara, May 21th- 23th, 2019
- 84.** S. Brindusoiu, M. Poienar, P. Sfirloaga, P. Vlazan, C. Mosoarca, P. C. Fannin, **I. Malaescu**, C. N. Marin, *The electrical conductivity of giniite Fe₅(PO₄)₄(OH)₃·2H₂O materials*, Physics Conference Tim-19, Timisoara, May 21th- 23th, 2019
- 85.** Bogdan Ilie, Marius Spunei, **I. Malaescu**, C. N. Marin, *The stability of silicone based bolus before and after an radiotherapy treatment*, Physics Conference Tim-19, Timisoara, May 21th- 23th, 2019
- 86.** Alexandrina Teusdea, P. C. Fannin, M. O. Bunoiu, **I. Malaescu**, C. N. Marin, *Magnetic field effect on some electrical properties of ferrofluid in low frequency field*, Physics Conference Tim-20-21, Timisoara, November 11th- 13th, 2021 (prezentare orală)
- 87.** Alexandrina Teusdea, P. C. Fannin, **I. Malaescu**, C. N. Marrin, *The effect of a polarizing magnetic field on the dynamic properties and of the specific absorption rate of ferrofluids in the microwave range*, 4th International Summer School and Workshop "Complex and Magnetic Soft Matter Systems: Physico-Mechanical Properties and Structure", 19-23 April 2021, West University of Timisoara, Romania (prezentare orală)

CĂRȚI ȘI MONOGRAFII

- 1) I. Mălaescu, *Ferofluide în câmp de radiofrecvență*, Editura Mirton, Timișoara, 1998, ISBN: 973-578-499-8.
- 2) I. Mălaescu, *Materiale dielectrice și aplicatii*, Curs pentru uzul studentilor, Tipografia UVT, Timisoara 2007
- 3) I. Mălaescu, C.N. Marin, *Fizica și tehnologia materialelor dielectrice*, Editura Universității de Vest, Timișoara, 2008, ISBN: 978-973-125-166-0.
- 4) I. Mălaescu, *Microunde și tehnologii cu microunde*, Editura Universității de Vest, Timișoara, 2008, ISBN: 978-973-125-145-5.
- 5) I. Mălaescu, "Materiale și dispozitive electronice în câmp de înaltă frecvență", Editura Eurobit, Timișoara, 2008, ISBN: 978-973-620-391-6
- 6) M. Spunei, I. Mălaescu, Maria Mihai, C. N. Marin, *Elemente de fizica radiatiilor și dozimetrie cu aplicatii in radioterapie*, Ed. Eurobit, Timisoara 2014, ISBN 978-973-132-193-6.
- 7) C. N. Marin, I. Mălaescu, *Electronica- Culegere de probleme*, Ed. Eurobit, Timisoara 2015, ISBN 978-973-132-245-2.
- 8) I. Mălaescu, *Proprietăți magnetice ale materialelor*, Editura Eurobit, Timisoara 2016, ISBN 978-973-132-341-1
- 9) I. Mălaescu, *Dispozitive și circuite electronice. Teme de seminar*, Editura Eurobit, Timisoara 2016, ISBN 978-973-132-342-8
- 10) TIM 08 Physics Conference, Editors M.O.Bunoiu, I. Mălaescu, AIP Conference Proceedings 1131, Melville, New-York, 2009, ISBN: 978-0-7354-0668-1.
- 11) TIM 09 Physics Conference, Editors M.O.Bunoiu, I. Mălaescu, AIP Conference Proceedings 1262, Melville, New-York, 2010, ISBN: 978-0-7354-0810-4.
- 12) TIM 10 Physics Conference, Editors M.O.Bunoiu, I. Mălaescu, AIP Conference Proceedings 1387, Melville, New-York, 2011, ISBN: 978-0-7354-0951-4,

CONTRACTE DE CERCETARE STIINTIFICA IN CALITATE DE DIRECTOR/RESPONSABIL

Nr.	Programul/Proiectul	Functia	Perioada
1	<p>Grant CNCSIS tip A: CERCETARI PRIVIND COMPORTAREA CU FRECVENTA A SISTEMELOR DE PARTICULE MAGNETICE DISPERSATE IN MATRICE SOLIDA SI LICHIDA</p> <p>-Faza 1 (1998) Studiul relaxarii dielectrice in camp de joasa frecventa la ferofluide si influenta temperaturii asupra proceselor de relaxare</p> <p>-Faza 2 (1999) Studiul dependentei de frecventa a susceptibilitatii magnetice a sistemelor de particule dispersate in matrice solida si lichida</p> <p>-Faza 3 (2001) Cercetari privind determinarea campului de anizotropie si a constantei de anizotropie efectiva a particulelor din sistemele de particule dispersate in matrice lichida si solida</p>	Director de proiect.	1998-2001
2	<p>PC 2179, Programul 4 – Parteneriate în domenii prioritare (PC) din programul PN2 (2007-2010): “TEHNOLOGII INOVATIVE DE</p>	Director de proiect partener P3	2007-2010

	OBTINERE PRIN PULVERIZARE TERMICĂ A MICROSTRUCTURILOR COMPOZITE DE TIP CERMET ANTICOROZIVE ȘI ANTIUZARE". Universitatea POLITEHNICA Timisoara (UPT), Dir. Prof. Dr. Ing. Viorel-Aurel Serban	(UVT).	
3	Proiect PCCDI: - Noi direcții de dezvoltare tehnologică și de utilizare a materialelor nanocompozite avansate 47PCCDI/2018, Acronim (Advance Nano) 2018-2020	Responsabil științific din partea partenerului P2 (UVT)	2018-2021
4	<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	2015
5	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	2016
6	<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	2016
7	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	2017
8	Combined Morphological and Structural Investigations of Complex Nanoparticle Systems - the position no. 81 from the JINR Order No. nr. 269/20.05.2020	MECS, Autoritatea Națională pentru	2020

	JINR Dubna Rusia - West University of Timisoara, Romania, Theme JINR code no. 04-5-1131-2017/2021	Cercetare Științifică Responsabil	
9	Combined Morphological and Structural Investigations of Complex Nanoparticle Systems - the position no. 96 from the JINR Order No. nr. 365/11.05.2021 JINR Dubna Rusia - West University of Timisoara, Romania, Theme JINR code no. 04-5-1131-2017/2021	MECS, Autoritatea Națională pentru Cercetare Științifică Responsabil	2021

Timisoara, 27.04.2022

Prof. dr. Emerit
Iosif Malaescu

