PERSONAL INFORMATIOM	Dorina-Emilia CREANGA
	University „Alexandru Ioan Cuza", Faculty of Physics, Iaşi, Romania
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	mdor@uaic.ro, dorina.creanga@gmail.com
	Sex Fem. | Born 05/12/1955 | Nationality Romanian

PROFESIONAL EXPERIENCE - 1991-2024	University „Alexandru Ioan Cuza", Faculty of Physics, Iaşi, Romania (Assistant Professor, Lecturer, Associated Professor, Professor habilitated, Professor emeritus)
-1988-1990	- Polytechnic Institute Iaşi, Romania (Associated Assistant Professor)
-1979-1991	-Antibiotic Plant, Iaşi, Romania (Physicist)

Researchdomains

Main research domains:
Bioeffects of radiation and metallic nanoparticles, Biophysics - bioelectromagnetism andneurobiophysics
Current research work domains:
Properties of multilayered magnetic metal nanparticles and their impact on the environment
Synthesis, physical characterization and bioeffects of metal non-magnetic nanoparticles
Genotoxicity and cytotoxicity of electromagnetic radiations
The analysis of complex systems -biosignal analysis

EDUCATION AND TRAINNING

2017	Habilitation Thesis „ Contributions to the study of metallic nanoparticles with applications inlife sciences, University „Alexandru Ioan Cuza ", Iaşi, 2017, November.
2005	Romanian French Summer School of Biochemistry, 10th Ed. University „Alexandru Ioan Cuza",Iaşi, Romania Faculty of Biology in collaboration with Lille University, France) -1 month
2004	Romanian French Summer School of Biochemistry, 9th Ed. University „Alexandru Ioan Cuza",Iaşi, Romania Faculty of Biology in collaboration with Lille University, France) -1 month
2002	Short Summer Courses on Fundamental and applications of Imagistics through Magnetic Resonance and Localized Spectroscopy, Neptun, România (organized by Fundaţia Culturală Română and International Society for Magnetic Resonance in Medicine)- 1 week
1999	Short Summer Courses TEMPERE (Training and Education for Medical Physics and EngineeringReform In Europe) at Medical School in Patras, Greece -1 week
1998	Romanian French Seminar of Clinical Dosimetry (organized by IAEA, International Atomic EnergyAgency, Vienna, Austria), Iasi, Romania-1 month
1995-1999	PhD Thesis Diploma of Doctor in Biophysics, Faculty of Physics, University "Babeş-Bolyai" , Cluj-Napoca, România
1984 - 1985	Intensive Course in German Language - 1 year at University „Alexandru Ioan Cuza", Iaşi,Faculty of Philology
1983-1984	Intensive Course in English Language - 1 year at University „Alexandru Ioan Cuza", Iaşi,Faculty of Philology
1981	Professional Specialization Course in Industrial Chemistry at Central Institute of Chemistry (ICCHIM), Bucureşti, România - 1 month
1980	Summer Course In Heavy Ions Physics, Braşov, România (organized by IFA, Institute OfAtomic Physics, Bucureşti) – 1 month
1977-1978	Specialization of one year (2nd cycle) in Optics Spectroscopy, Plasma Physics, University „Alexandru Ioan Cuza", Iaşi, Faculty of Physics
1977	Specialization in Plasma Physics at the University of Greifswald, Germany -1month
1974-1978	Physics Faculty (1st cycle) at University „Alexandru Ioan Cuza", Iaşi, Romania

Mother language(s)	Romanian				
Other languages	UNDERSTANDING		SPEAKING		WRITTING
	Listening	Reading	Interactive discussions	Discussion initiator	
English	B1	B1	B1	B1	C1
	Nivel.				
French	B1	B1	B1	B1	C1
	Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user				

Communication abilities	' Good communications with student generations to whom I tought several courses of Biophysics and Medical Physics. Good communications with people attending the national and international scientific events where I presented invited lectures, oral and poster presentations. Good communications with the UAIC partners in Erasmus - Erasmus plus programs I have initiated for the exchange of studnets and university staff. Good communications with the editors of scientific journals and the submiting authors of articles sent to me for analysis. (Sensors &Actuators A., Int J Nanotech, BMC Biotechnnol, J Magn Magn Mater, Colloids & Surfaces A, Int J Radiat Biol, J Ecol Natur Environ, J Med Medic Res, Asia Sci, Colloids & Surfaces B, Int J Phys Sci, Int Res JBiotechn, Afr J Biochem Res, Int J Nutr Metabol, Afr J Microbiol Res, J Clin Med Res, J Bacteriol Res, J Biophys Struct Biol, Int J Med Res , J Mol Struct and others

Organizing and management abilities	Chief Editor and foundation member of Revista de Fizică Medicală (under CFMR - Colegiul Fizicienilor Medicali din România -College of Romanian Medical Physicists) Member in Editorial Board of Romanian Journal of Biophysics Member in organization committees of: International Conference of Physics of Advanced Materias (ICPAM): ICPAM 12, ICPAM-11, ICPAM-10, ICPAM-9, National Biophysics Conference: CNB 2005, 2013, 2015, Conference on Physics and Modern Educational Techniques in Iaşi, Romania: FTEM 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015) Conference of CFMR (Colegiul Fizicienilor Medicali din România- College of Romanian Medical Physicists), 2017, 2015, 2013 Director-responsible of several research teams de funded through national and international projects (listed below)

ADITIONAL INFORMATION	

Publications in specialty journals. Citations	over 150 publications in specialty journals visible on (ISI Web of Science -Thomas Reuter) a) Hirsch -index h=18 according to Thomas Reuterh index-19 according to Scopus; h index=26 according to Google Scholar
Books and bookchapters	Răcuciu, M., *Creangă, D. E.*, & Oprică, L. (2023). Nanosized ferrites in environmental sciences. In Applications of Nanostructured Ferrites (pp. 331-351). Woodhead Publishing *D. Creang*ă, S. Dunca, A. Poiată. Some aspects regarding bacteria sensitivity to physical constraints of magnetic nature. In Advances in Medicine and Biology, Volume16, Chapter 11, pp. 287-302. Nova Publishers, 2011. Bazele biomagnetismului, (Fundamentals of Biomagnetism) *Creangă, D.*, Ed. University „Alexandru Ioan Cuza-Iaşi, 2010, 125 pag. Elemente de radiobiofizică, (Elements of Radiobiophysics) *Creangă, D*. 2005, Ed.CERMI,199 pag. Proprietăţi electrice ale membranelor celulare, (Electric properties of cell membranes) Neacşu, I., *Creangă, D.*, 2003, Ed. Univ. Al. I. Cuza-Iaşi, 292 pag. Chaos and fractal features in heart electric activity, autor *D. Creangă*, in *Interdisciplinary applications of fractaland chaos theory*, Ed.; R. Dobrescu, C. Vasilescu, Ed. Acad. Rom., Bucureşti, 2004, pag. 274-297 Lucrări de laborator de Radiobiologie (Laboratory works of radiobiolody), *Creangă, D.E.*, Edit. University „Alexandru Ioan Cuza -Iaşi, 2002, 185 pag. Experimente de fizică generală şi biofizică, (Experiments of general physics and biophysics) Edit. University „Alexandru Ioan Cuza *-Iaşi, 2000, Alexandroaie, D., Creangă*, D., Delibas, M., Dorohoi, D., ş.a.(24 pag. *D.. Creangă*) Lucrări de Laborator de Biofizică, (Laboratory works of biophysics) *Creangă, D.E.*, Edit. University „Alexandru Ioan Cuza -Iaşi, 2003, 235 pag Introducere în biofizica moleculară şi citotisulară, (Introduction to molecular and cyto-tissular biophysics) Edit. Apollonia-Iaşi, 2002, Isac, R.M., Topoliceanu, F., *Creangă, D*. 350 pag Elemente de electrofiziologie, (Elements of electrophysiology))*D. Creangă*, Ed. Cermi, 157 pag., 2003 Aspecte ale geneticii, ecologiei si evoluţiei populaţiilor), Creangă, I., Surugiu, C.I., *Creangă, D.*, Băra, I.I., Ed. Corson, Iaşi, 2002, (Chapter 5, Teoria haosului deterministic metode de studiu semi – cantitative în studiul sistemelor naturale -Theory of deterministic chaos-semiquantitative methods of natural system study)- 20 pag Application of fuzzy logic to visual system modeling, autori: *Creangă, D*, Isac, M., Isac, R.M., in *Advances in intelligent systems*, Ed. F.C. Morabito, IOS Press, 1997, Amsterdam, Olanda, pag. 367-371

Director of research projects - national and international

1.Project CEEX (Complex Exploratory Research) - Research on the bioelectromagnetic interactions and the *biologic impact of human exposure to electromagnetic fields of radiofrequency and microwaves*, 2005-2007, 115000 lei director partner University „Alexandru Ioan Cuza", Iaşi Creanga D.

PN II no. 71046 BIOMAG, - New methods and techniques of high resolution for biomedical investigation *and diagnosis,* 2008-2010, **30000 lei,** director partner University „Alexandru Ioan Cuza", Iaşi Creanga D.

PN II, IDEAS 2021/474 -*Study of molecular and cellular mechabisms triggered by the impact of magnetic contamination and electromagnetic exposure on living organisms,* 2009- 76681 lei, 2010-100000 lei, 2011- 179121 lei director Creanga D., 2009-2011

CNCSIS type A -No. 1379,2007-2008, Study of some biological effects of biocompatible magnetic fluids

2007- 40000 lei, 2008-60000 lei, director Creanga D.

Project **B.EN.A** – Balkan Environmetal Association-(Greece), Study on the biological effects induced in the living bodies by the electromagnetic fields; assessment of the risk on the environment for the identification of the areas where pollution combat is required or ecological reconstruction, 2008, 1220 euro, director Creanga, D.,

Project FP7 - People IRSES, CERVISO „Cerebellum in visual spatial orientation", No. 269263, 2009-2015, responsible Romania, Creanga, D., 32500 euro

Project IUCN JINR - DUBNA, 04-4-1121, "Investigations of Condensed Matter by Modern Neutron Scattering Methods", item 57: *Metal based nanoparticles and some bioeffects*, responsible University „Alexandru Ioan Cuza", Iaşi Romania, director Creanga, D. 2015

Project IUCN JINR - DUBNA, 04-4-1121, item 79: *Yielding of magnetic nanoparticles with various chemical composition and study of their bioeffects*, responsible University „Alexandru Ioan Cuza", Iaşi Romania, director Creanga, D., 2016

Project IUCN JINR - DUBNA, 04-4-1121, item 80: *Gold nanoparticles in aqueous suspension for applications in environment sciences*, responsible University „Alexandru Ioan Cuza", Iaşi Romania, director Creanga, D. , 2016

Project IUCN JINR - DUBNA, 04-4-1121, *Multilayered nanoparticles with organic/inorganic composition and biological impact,* item *62***,** responsible University „Alexandru Ioan Cuza", IaşiRomania, director Creanga, D., 2017

Project IUCN JINR - DUBNA, 04-4-1121, item 68*, Silanized magnetic nanoparticles with potential utilizationin environmental applications***,** responsible from University „Alexandru Ioan Cuza", Iaşi Romania, director Creanga, D.., 2018

Project IUCN JINR - DUBNA, 04-4-1121, item 85, New nanocomposite layers and thin films based on graphene and polymers for hybrid solar cell and medical applications, director Iaşi Romania, Creanga, D., 2018

Project JINR-Ro theme 04-4-1121/2019, item 45, Structural investigation of surface modified magnetic nanosystems synthesized by conventional or eco-friendly methods and their impact on the environment, responsible Lucian Blaga University Sibiu, Romania, ULBS-UAIC institutions partnership, responsible UAIC, D. Creanga

JINR-Ro Project Theme code: 04-2-1132-2017/2019, item 21: Experimental investigation ofthe behavior of eukaryotic environmental organisms exposed to radiation (Institute of Biology, Iasi in partnership with Alexandru Ioan Cuza University in Iasi, Romania) director D. Creanga

.JINR-Ro Project Theme code: 04-2-1132-2017/2020, item 21, Proton beam exposure of plant seeds and the induced bioeffects-Laboratory study, (Institute of Biology, Iasi in partnershipwith Alexandru Ioan Cuza University in Iasi, Romania)

JINR-Ro project, theme no 04-4-1121/2020 item 34, title Combined study of the structure and properties of molecules for optimal interaction with magnetic nanocore surface for various applications of resulted nanoparticles: structural characterization and theoretical quantum mechanical analysis (Lucian Blaga University in Sibiu in partnership with Alexandru Ioan Cuza University in Iasi, Romania) responsible UAIC, D. Creanga

JINR-Ro project, theme no 04-4-1121/2020 item 32, Structural investigation of new functionalized nanoparticles for normal and neoplastic cell reactivity modulation (Institute of Biology, Iasi in partnership with Alexandru Ioan Cuza University in Iasi, Romania) responsible UAIC, D. Creanga

NationalPatent

Tufescu, F., Creanga, D., Metoda si instalatie pentru expunerea controlata la radiatii demicrounde a probelor biologice in ghid de unda, (Method and installation for controlled exposure of biological samples in wave guide) 2012

Awarded articles and patents (byUEFISCDI-PRECISI, Romania)

Poiata, A., Motrescu, I., Nastuta, A., **Creanga, D,** Popa, Gh., Microorganism response to atmospheric pressure plasma helium DBD treatment, **J. Electrost.,** 68(2), 128-131, 2010

Vochita, G., **Creanga, D**., Focanici-Ciurlica, E., Magnetic nanoparticle genetic impact on root tip cells of sunflower seedlings, **Water Air Soil Poll.,** 223(5), 2541-2549, 2012

Poiata, A., **Creanga, D**., Nadejde, C., Fifere, N., Airinei. A. Chemically modified nanoparticles surface for sensing bacterial loading–experimental study based on fluorescence stimulation by iron ions. **Bioelectrochemistry,** 93, 51-58, 2013

Stan, C.. Astefanoaei, C., Pretegiani, E., Optican, **L., Creanga**, D., Rufa, A., Cristescu, C.P., Nonlinear analysis of saccade speed fluctuations during combined action and perception tasks., **J. Neurosci. Meth.,** 323, 102-109, 2014

Pretegiani, E., Astefanoaei, C., Daye, P. M., FitzGibbon, E. J., **Creanga, D**. E., Rufa, A., Optican, L. M. Action and perception are temporally coupled by a common mechanism that leads to a timing misperception, **J. Neurosci.** 35(4), 1493-1504, 2015

E. Puscasu, L. Sacarescu, N. Lupu, M. Grigoras, G. Oanca, M. Balasoiu, **D. Creanga**, Iron oxide-silica nanocomposites yielded by chemical route and sol-gel method, **J. Sol-Gel Sci. Techno.l,** 79(3), 457-465, 2016

Andries,M.; Pricop, D., Oprica, L., **Creanga, D.E**., Iacomi, F., The effect of visible light on gold nanoparticles and some bioeffects on environmental fungi, **Int. J. Pharmaceut.,** 505(1-2), 255- 261, 2016

M. Răcuciu, D. Creangă, Magnetite/Tartaric Acid Nanosystems for Experimental Study ofBioeffects on *Zea Mays* Growth, **Rom. J. Phys**. 62, 804, 2017

Tufescu, F., Creanga, D., Metoda si instalatie pentru expunerea controlata la radiatii de microunde a probelor biologice in ghid de unda, (Method and installation for controlled exposureof biological samples in wave guide)**Patent OSIM,** 2018
Morosanu, A. C., Todirascu, A. G., **Creanga, D.** E., Dorohoi, D. O., Computational and solvatochromic study of pyridinium-acetyl-benzoyl-methylid (PABM). **Spectrochim. Acta** A, *189*, 307-315, 2018
Verdes-Teodor, A.. Vochita, G., **Creanga D**., On some genotoxic effects of UV-C radiation inroot meristemes in *Cucurbita pepo* L., **Rom. Rep. Phys.,** 71,707, 2019
Dorohoi, D.O., **Creanga, D.E**., Dimitriu, D.G., Morosanu, A.C., Gritco-Todirascu, A., Mariciuc, G.G., Melniciuc, N.P., Ardelean, E., Cheptea, C., Computational and spectral means for characterizing the intermolecular interactions in solutions and for estimating excited state dipolemoment of solute. **Symmetry,** 12(8), 1299, 2020.

Selection of articles

Plesnicute, R., Rimbu, C., Oprica, L., Herea, D., Motrescu, I., Luca, D., Creanga, D., Grigore, M. N., Eco-Friendly Synthesis of Silver Nanoparticles with Significant Antimicrobial Activity for Sustainable Applications, **Sustainability**, 17(12), 2025, 5321.
Vochița, G., Fânaru-Balint, A. R., Agavriloaei, A., Gherghel, D., Răcuciu, M., Creangă, D., Magnetic Nanoparticles for Rhodamine B Depletion in Wastewater—Theoretical and Experimental Approach., **Molecules**, 30(22), 2025, 4447.Răcuciu, M.,Oancea, S.,Barbu-Tudoran, L., Drăghici, O.,Agavriloaei, A.,**Creangă, D**. (2024). A Study of Hyaluronic Acid's Theoretical Reactivity and of Magnetic Nanoparticles Capped with Hyaluronic Acid. **Materials,** 17(6), 1229.
Ardeleanu, H., Ababei, G., Grigoras, M., Ursu, L., Melniciuc-Puica, N., Astefanoaei, I.,**Creanga, D**. (2023). Cobalt Ferrite Nanoparticles Capped with Perchloric Acid for Life-Science Application. **Crystals**, 13(7), 1058.
Les, A., Ardeleanu, H., Grigoras, M., Motrescu, I., **Creanga, D**., Pricop, D. (2024). Quantum-Chemical and Experimental Study on the Interactions between the Magnetic Core and the Molecular Shell of Cobalt Ferrite Nanoparticles in Aqueous Suspensions. **Analyt. Lett.**, 57(4), 503-516.
Răcuciu, M.,Barbu-Tudoran, L.,Oancea,S., Drăghici, O.,Morosanu, C., Grigoras, M.,**Creangă, D. E**. (2022). Aspartic acid stabilized iron oxide nanoparticles for biomedical applications. N**anomaterials**, 12(7), 1151.
Popescu-Lipan, L., Les, A., Grigoras, M., Ababei, G., Motrescu, I., Bulai, G., **Creanga, D.** & Balasoiu, M. (2022). Antioxidant molecule useful in the stabilization of nanoparticles in water suspension. **Soft Mater.**, 20(1), S76-S90.
Oprica, L., Vochita, G., Grigore, M. N., Shvidkiy, S., Molokanov, A., Gherghel, D., Les, A. & **Creanga, D**. (2023). Cytogenetic and Biochemical Responses of Wheat Seeds to Proton Irradiation at the Bragg Peak. **Plants**, 12(4), 842.
Dorohoi, D. O., **Creanga, D. E.,** & Dimitriu, D. G. (2023). Intermolecular Interactions in Binary and Ternary Solutions of a Zwitterionic Compound Studied by Solvatochromism. **Symmetry**, 15(2), 563.
Pricop, D. A., Popescu, C. M., Tartau, L., & **Creanga, D.** (2023). Study of silver nanoparticle interactions at the interface with biological tissues. **Appl. Surf. Sci.**, 621, 156837.
Oprica, L., Andries, M., Sacarescu, L., Popescu, L., Pricop, D., Creanga, D., & Balasoiu, M. (2020). Citrate-silver nanoparticles and their impact on some environmental beneficial fungi. **Saudi Journal of Biological Sciences**, 27(12), 3365-3375.
Dorohoi,D.,**Creanga,D.,**Dimitriu,D.,Morosanu,A.,GritcoTodirascu,A.,Mariciuc,G.,Melniciuc,N.,Ardelean,E.,Cheptea,C.,Computational and spectral means for characterizing the intermolecular interactions in solutions and for estimating excited state dipole moment of solute**. Symmetry**, 12(8), 1299, 2020**.**
Morosanu, A. C., Todirascu, A. G., **Creanga, D.**, Dorohoi, D. O., Computational and solvatochromic studyof pyridinium-acetyl-benzoyl-methylid (PABM). **Spectrochim. Acta** Part A, 189, 307-315, 2018
Andries, M., Pricop, D., Oprica, L., **Creanga, D.E**., Iacomi, F., The effect of visible light on gold nanoparticlesand some bioeffects on environmental fungi, **Int. J. Pharmaceut.,** 505(1-2), 255-261, 2016
Puscasu, E., Sacarescu, L., Lupu, N., Grigoras, M., Oanca, G., Balasoiu, M., **Creanga, D.**, Iron oxide-silica nanocomposites yielded by chemical route and sol–gel method, **J. Sol-Gel Sci. Technol.,** 79(3), 457–465, 2016
Cirtoaje, C., Petrescu, E., Stan, C., **Creanga D.**, Ferromagnetic nanoparticles suspensions in twisted nematic, **Physica E,** 79, 38–43, 2016
Lupusoru, R-V., Pricop, D.A., Andries, M., **Creanga, D.**, Light wavelength influence on surface plasmon resonance in citrate–gold nanosystems, **J. Mol. Struct.,** 1126, 192-199, 2016
Popescu, C.M., Hritcu, L., Pricop, D.A, **Creanga, D.**, Morphological changes in gold core–chitosan shell nanostructures at the interface with physiological media. *In vitro* and *in vivo* approach, **Appl. Surf. Sci. A,** 352, 103-108, 2015
Pretegiani, E., Astefanoaei, C., Daye, P.M., FitzGibbon, E.J., **Creanga, D**.E., Rufa, A., Optican, LM., Action and perception are temporally coupled by a common mechanism that leads to a timing misperception, **J.Neurosci.,** 35(4), 1493-1504, 2015

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