



PERSONAL INFORMATION

Diana Mihaela Mardare



 "Alexandru Ioan Cuza" University of Iasi, Faculty of Physics

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Sex F | Date of birth 25/07/1962 | Nationality Romanian

WORK EXPERIENCE

10.2008 – at the moment

**Professor**

Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
Research and teaching activities

02.2004-09.2008

**Assoc. professor**

Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
Research and teaching activities

10.1998-01.2004

**Lecturer**

Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
Research and teaching activities

02.1991-09.1998

**Assistant professor**

Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
Research and teaching activities

09.1988-01.1991

**Researcher in Computational Physics**

Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
Research activities

09.1985-08.1988

**Teacher**

High (secondary) school no.1 Vaslui  
Teaching activities

**EDUCATION  
AND TRAINING**

- 02.2010-present **Recognition as PhD supervisor**  
Alexandru Ioan Cuza University of Iasi, Faculty of Physics
- 12.1999 **PhD in Physics**  
  
Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
Solid State Physics
- 07.1985 **B.A.in Physics**  
Alexandru Ioan Cuza University of Iasi, Faculty of Physics  
General Physics, pedagogical skills

**PERSONAL SKILLS**

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B1	B1	B1	B1	B1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

**Communication skills** Good communication skills gained through my experience as a professor and as grants manager

**Organisational / managerial skills** Managerial skills acquired as **Head of doctoral school**, Faculty of Physics, Alexandru Ioan Cuza University, IASI, ROMANIA, since 2012 till present, in the

- Expert in grants' assesment
- Editor for the Biophysics section: Analele Stiintifice ale Universitatii "Alexandru Ioan Cuza", (Medical Physics and Environmental Physics)
- Member in the Organization Committee of 7 Conferences
- "Peer review" activities (Surface Science, Applied Surface Science, Journal of Hazardous Materials, Journal Of Physical Chemistry, Thin Solid Films, Catalysis Communications, Physica Status Solidi (a), Physica B, Journal of Alloys and Compounds, Journal of Physics and Chemistry of Solids, Surface and Coatings Technology, Applied Physics B, ACS Applied Materials & Interfaces, Colloids and Surfaces A etc.);

**Digital competence**

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving

Independent user	Proficient user	Independent user	Independent user	Independent user
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#### ADDITIONAL INFORMATION

H index **24 (WOS-independent citations)**

#### Research domain: Semiconductors in thin films

- Publications** - 96 papers in the domain of semiconducting thin films (69 in ISI quoted journals).
- Conferences** - over 150 oral and poster presentations in international and national conferences
- Citations** - over 1500 independent ISI citations
- Grants** - Participant at 37 national grants and 5 international grants (7 grants as director)
- Memberships** -Member in the Council of Doctoral School of Alexandru Ioan Cuza University, IASI, ROMANIA/ 2012-2020
- Member of the European Physical Society and of the Romanian Physical Society
- Member in the Physics Committee of the National Council for Confirmation of the Titles, Diplomas and University Certificates (**CNATDCU**) /since 2011
- Courses**
  - Environmental Physics
  - Ecological Factors and Their Interaction with the Living Systems (MASTER)
  - Polycrystalline and Amorphous Thin Films (MASTER)
  - Electronic Transport Phenomena (MASTER)
  - Semiconducting Thin Films (MASTER)

#### ANNEXES

##### List of publications in ISI quoted journals:

- [1] THE RECTIFYING CONTACT OF HYDRATED DIFFERENT SIZE YSZ NANOPARTICLES FOR ADVANCED ELECTRONICS, Alexander S. Doroshkevich, Anna S. Zakharova, Boris L. Oksengendler, Andriy I. Lyubchik, Sergiy I. Lyubchik, Svitlana B. Lyubchik, Alisa A. Tatarinova, Andriy K. Kirillov, Tatyana A. Vasilenko, Oksana O. Gorban, Viktor I. Bodnarchuk, Nadejda N. Nikiforova, Elena A. Zakharova, Maria Balasoiu, Diana M. Mardare, Carmen Mita, Anca Stanculescu, Matlab N. Mirzayev, Asif A. Nabiyev, Evgeni P. Popov 2, Le Hong Khiem, Alexander A. Donkov, Vesna Teofilović, Bozena Jasinska, Dan Chicea, Tatyana Ye. Konstantinova, *Nanomaterials*, 12 (2022) 4493.
- [2] EFFECTS OF YSZ CERAMICS DOPING WITH SILICA AND ALUMINA ON ITS STRUCTURE AND PROPERTIES, D.R. Belichko, T.E. Konstantinova, G.K. Volkova, M.N. Mirzayev, A.V. Maletsky, V.V. Burkhovetskiy, A.S. Doroskevich C. Mita, D.M. Mardare, B. Janiska, A.A. Nabiyev, A.I. Lyubchik , A.A. Tatarinova, E. Popov, *Materials Chemistry and Physics* 287 (2022) 126237
- [3] ELECTRIC ENERGY STORAGE EFFECT IN HYDRATED ZRO2 – NANOSTRUCTURED SYSTEM, Alexander S. Doroshkevich \*, Andriy I. Lyubchik, Boris L. Oksengendler, Tatyana Yu. Zelenyak, Nurbol O. Appazov, Andriy K. Kirillov, Tatyana A. Vasilenko, Alisa A. Tatarinova, Oksana O. Gorban, Viktor I. Bodnarchuk, Nadejda N. Nikiforova, Maria Balasoiu, Diana M. Mardare, Carmen Mita, Dorin Luca, Matlab N. Mirzayev, Asif A. Nabiyev, Evgeni P. Popov, Anca Stanculescu, Tatyana E. Konstantinova, Yulia V. Aleksiyayenak, *Nanomaterials* 12 (2022) 1783
- [4] REVERSIBLE MARTENSITIC PHASE TRANSITION IN YTTRIUM-STABILIZED ZRO2 NANOPOWDERS BY ADSORPTION OF WATER, Elmar B. Asgerov, Anatoly I. Beskronnyy , Nelya V. Doroshkevich, Carmen Mita, Diana M. Mardare, Dan Chicea, Mihaela D. Lazar, Alisa A. Tatarinova, Sergiy I. Lyubchik , Svitlana B. Lyubchik , Andriy I. Lyubchik and Alexander S. Doroshkevich, *Nanomaterials* 12 (2022) 435.
- [5] STRUCTURE FORMATION AND PROPERTIES OF CORUNDUM CERAMICS BASED ON METASTABLE ALUMINIUM OXIDE DOPED WITH STABILIZED ZIRCONIUM DIOXIDE, Maletsky A.V., Belichko D.R., Konstantinova T.E., Volkova G.K., Doroshkevich A.S., Lyubchik A.I., Burkhovetskiy V.V., Aleksandrov V.A., Mardare D., Mita C., Chicea D, L.H.Khiem, *Ceramics*

International, 47 (2021) 19489-19495

- [6] INFLUENCE OF HAFNIUM OXIDE ON THE STRUCTURE AND PROPERTIES OF POWDERS AND CERAMICS OF THE YSZ - HfO<sub>2</sub> COMPOSITION, Danil Belichko, Tetuana Konstantinova, Alexandr Maletskyi, Galina Volkova, Alexandr Doroshkevich, Marharyta Lakusta, Mirosław Kulik, , Alice Tatarinova, Diana Mardare, Carmen Mita, Nicoleta Cornei, Ceramics International, 47 (2021) 3142–3148
- [7] IRON DOPED TiO<sub>2</sub> FILMS AND THEIR PHOTOACTIVITY IN NITROBENZENE REMOVAL FROM WATER, Maria Crișan, Diana Mardare, Adelina Ianculescu, Nicolae Drăgan, Ines Nițoi, Dorel Crișan, Mariana Voicescu, Ligia Todan, Petruța Oancea, Cătălin Adomniței, Marius Dobromir, Margarita Gabrovska, Bogdan Vasile, Applied Surface Science, 455 (2018) 201–215
- [8] ON THE HYDROPHILICITY OF NI-DOPED TiO<sub>2</sub> THIN FILMS. A STUDY BY X-RAY ABSORPTION SPECTROSCOPY, Dan Macovei, Vasile Tiron, Catalin Adomnitei, Dumitru Luca, Marius Dobromir, Stefan Antohe, Diana Mardare, Thin Solid Films 657 (2018) 42–49
- [9] THE EFFECT OF CO<sub>2</sub> GAS ADSORPTION ON THE ELECTRICAL PROPERTIES OF FE DOPED TiO<sub>2</sub> FILMS, Diana Mardare, Catalin Adomnitei, Daniel Florea, Dumitru Luca, Abdullah Yildiz Physica B 524 (2017) 17–21
- [10] PLATINUM ROLE IN HYDROPHILICITY ENHANCEMENT OF Cr-DOPED TiO<sub>2</sub> THIN FILMS, D. Mardare, C. Mita, N. Cornei, S. Tascu, D. Luca, M. Dobromir and C. Adomnitei, Philosophical Magazine 96 (2016) 3000–3015
- [11] LOW TEMPERATURE TiO<sub>2</sub> BASED GAS SENSORS FOR CO<sub>2</sub>, Diana Mardare, Nicoleta Cornei, Carmen Mita, Daniel Florea, Alexandru Stancu, Vasile Tiron, Alina Manole, Catalin Adomnitei, Ceramics International 42 (2016) 7353-7359.
- [12] STUDIES ON Pr<sup>3+</sup>-Yb<sup>3+</sup> CODOPED ZBLA AS RARE EARTH DOWN CONVERTOR GLASSES FOR SOLAR CELLS ENCAPSULATION, J. Merigeon, O. Maalej, B. Boulard, A. Stanculescu, L. Leontie, D. Mardare, M. Girtan, Optical Materials, 48 (2015) 243–246.
- [13] THE INFLUENCE OF NI DOPING ON THE SURFACE WETTABILITY OF TiO<sub>2</sub> THIN FILMS C. Adomnitei, N. Cornei, D. Luca, I. Sandu, V. Vasilache, M. Dobromir, D. Mardare, Journal of Optoelectronics and Advanced Materials, 17(5-6) (2015) 889-893.
- [14] Nb DOPED TiO<sub>2</sub> THIN FILMS AS PHOTOCATALYTIC MATERIALS Catalin Adomnitei, Sorin Tascu, Dumitru Luca, Marius Dobromir, Mihaela Girtan and Diana Mardare, Bulletin of Materials Science, 38(5) (2015) 1259-1262 .
- [15] SYNTHESIS AND HYDROPHILIC PROPERTIES OF MO DOPED TiO<sub>2</sub> THIN FILMS Diana Mardare, Nicoleta Cornei, Dumitru Luca, Marius Dobromir, S A. Irimiciuc, Luciana Pungă, Aurel Pui, Cătălin Adomnitei, Journal of Applied Physics, 115, 213501-1 - 2 13501-8 (2014)
- [16] Nb-DOPED TiO<sub>2</sub> THIN FILMS DEPOSITED BY SPRAY PYROLYSIS METHOD, C. Adomnitei, D. Luca, M. Girtan, I. Sandu, V. Nica, A.V. Sandu, D. Mardare, Journal Of Optoelectronics And Advanced Materials, 15(5- 6) (2013) 519 – 522.
- [17] ON THE PROPERTIES OF ALUMINIUM DOPED ZINC OXIDE THIN FILMS DEPOSITED ON PLASTIC SUBSTRATES FROM CERAMIC TARGETS, M.Girtan, A. Vlad, R. Mallet, M. A.Bodea, J.D. Pedarnig, A. Stanculescu, D. Mardare, D., L.Leontie, S. Antohe, Applied Surface Science, 274 (2013) 306 – 313.
- [18] SURFACE WETTABILITY OF TITANIA THIN FILMS WITH INCREASING Nb CONTENT, Diana Mardare, Abdullah Yildiz, Mihaela Girtan, Alina Manole, Marius Dobromir, Mihaela Irimia, Catalin Adomnitei, Nicoleta Cornei, Dumitru Luca, J. Appl. Phys. 112 (2012) 073502
- [19] THE MEYER-NELDEL RULE IN AMORPHOUS TiO<sub>2</sub> FILMS WITH DIFFERENT Fe CONTENT, Diana Mardare, Abdullah Yildiz<sup>2</sup> Radu Apetrei, Petronela Rambu, Daniel Florea, Nicoleta Georgiana Gheorghie, Dan Macovei, Cristian Mihail Teodorescu and Dumitru Luca, Journal of Materials Research, 27(17) (2012) 2271-2277.
- [20] X-RAY ABSORPTION FINE STRUCTURE INVESTIGATIONS ON HEAT-TREATED Cr-DOPED

- TITANIA THIN FILMS, Diana Mardare, Valentin Nica, Valentin Pohoata, Dan Macovei, Nicoleta Gheorghe, Dumitru Luca and Cristian-Mihail Teodorescu, Thin Solid Films, 520(4) 1348-1352 (2011)
- [21] POLARONIC TRANSPORT IN  $\text{TiO}_2$  THIN FILMS WITH INCREASING NB CONTENT, Abdullah Yildiz and Diana Mardare, Philosophical Magazine 91(34) 4401-4409 (2011)
- [22] ELECTRICAL CONDUCTION MECHANISM AND GAS SENSING PROPERTIES OF Pd-DOPED  $\text{TiO}_2$  FILMS, Diana Mardare, Nicoleta Iftimie, Maria Crişan, Mălina Răileanu, A. Yildiz, T. Coman, K. Pomoni, A. Vomvas, Journal of Non-Crystalline Solids 357, 1774–1779 (2011)
- [23] EFFECT OF FORMALDEHYDE GAS ADSORPTION ON THE ELECTRICAL CONDUCTIVITY OF Pd-DOPED  $\text{TiO}_2$  THIN FILMS, A. Yildiz, D. Crisan, N. Dragan, N. Iftimie, D. Florea, D. Mardare, J Mater Sci: Mater Electron, 22, 1420–1425 (2011)
- [24] STRUCTURAL STUDY OF SOL–GEL Au/ $\text{TiO}_2$  FILMS FROM NANOPOWDERS, Dorel Crisan, Nicolae Dragan, Malina Raileanu, Maria Crisan, Adelina Ianculescu, Dumitru Luca, Andrei Nastuta, Diana Mardare, Applied Surface Science 257, 4227–4231 (2011)
- [25] PHOTOINDUCED WETTABILITY OF TITANIUM OXIDE THIN FILMS, Diana Mardare, Alina Manole, A. Yildiz, and D. Luca, Chem.Eng.Comm., 198, 530–540 (2011)
- [26] POLARON TRANSPORT IN  $\text{TiO}_2$  THIN FILMS, Abdullah Yildiz, Felicia Iacomi, Diana Mardare, Journal Of Applied Physics, 108(8), 083701- 083708 (2010)
- [27] THE SUBSTRATE TEMPERATURE DEPENDENT ELECTRICAL PROPERTIES OF TITANIUM DIOXIDE THIN FILMS, A. Yildiz, S.B.Lisesivdin, M. Kasap, Diana Mardare, Journal of Materials Science: Materials in Electronics, 21 692-697 (2010).
- [28] THE THICKNESS EFFECT ON THE ELECTRICAL CONDUCTION MECHANISM IN TITANIUM OXIDE THIN FILMS, A. Yildiz, N. Serin, M. Kasap, T. Serin, Diana Mardare, Journal of Alloys and Compounds 493 227-232 (2010).
- [29] ELECTRICAL CONDUCTION MECHANISM IN POLYCRYSTALLINE TITANIUM OXIDE THIN FILMS, Diana Mardare and G. I. Rusu, Journal of Non-Crystalline Solids, 356 (28-30) 1395–1399 (2010)
- [30] UNDOPED AND Cr-DOPED  $\text{TiO}_2$  THIN FILMS OBTAINED BY SPRAY PYROLYSIS, Diana Mardare, Felicia Iacomi, Nicoleta Cornei, Mihaela Girtan, Dumitru Luca, Thin Solid Films, 518, 4586–4589 (2010).
- [31] ON THE PROPERTIES OF NANOSTRUCTURED TITANIUM OXIDE THIN FILMS, D.Mardare, N. Cornei, G.I.Rusu, Superlattices and Microstructures 46 209-216 (2009)
- [32] NON-ADIABATIC SMALL POLARON HOPPING CONDUCTION IN NB-DOPED  $\text{TiO}_2$  THIN FILM A. Yildiz, S. B. Lisesivdin, M. Kasap, D. Mardare, Physica B, 404 (8-11) 1423–1426 (2009)
- [33] GAS SENSING MATERIALS BASED ON  $\text{TiO}_2$  THIN FILMS, Nicoleta Iftimie, D. Luca, Felicia Iacomi, Mihaela Girtan and Diana Mardare, Journal of Vacuum Science and Technology B, 27(1) 538-541 (2009)
- [34] PHOTO-DEGRADATION ACTIVITY OF SPUTTER-DEPOSITED NITROGEN-DOPED TITANIA THIN FILMS, R. Apetrei, C. Catrinescu, D. Mardare, C. M. Teodorescu, D. Luca Thin Solid film, 518 (2009) 1040–1043
- [35] FABRICATION AND CHARACTERIZATION OF NANO-STRUCTURED FERROMAGNETIC  $\text{Ti}_{1-x}\text{Fe}_x\text{O}_2$  THIN FILMS, R.Apetrei, C.Negrila, D.Macovei, V.Dascalescu, C.-M.Teodorescu, D.Mardare, D.Luca, NSTI Nanotech 2009 (Technical Proceedings of the 2009 Nanotechnology Conference and Expo, Nanotech Houston, Texas, SUA) 1, (2009) 375-378
- [36]  $\text{TiO}_2$  THIN FILMS AS SENSING GAS MATERIALS, D. Mardare, N. Iftimie, D. Luca, Journal of Non-Crystalline Solids 354 4396–4400 (2008)
- [37] ON THE SENSING GAS PROPERTIES OF TITANIUM DIOXIDE FILMS, N. Iftimie, M. Crisan, A. Braileanu, D. Crisan, A. Nastuta, G. B. Rusu, P.D. Popa, D. Mardare, J. Optoelectron. Adv. M. 10(9) 2363-2367 (2008)

- [38] CRYSTALLIZATION STUDY OF SOL– GEL UN-DOPED AND PD-DOPED TiO<sub>2</sub> MATERIALS, Dorel Crisan, , Nicolae Dragan, Maria Crisan, Malina Raileanu, Ana Braileanu, Mihai Anastasescu, Adelina Ianculescu, Diana Mardare, Dumitru Luca, Virgil Marinescu, Antoniu Moldovan, Journal of Physics and Chemistry of Solids 69 2548– 2554 (2008)
- [39] THERMAL BEHAVIOUR STUDY OF SOME SOL–GEL TiO<sub>2</sub> BASED MATERIALS, M. Crisan, A. Braileanu, D. Crisan, M. Raileanu, N. Dragan, D.Mardare, V. Teodorescu, A. Ianculescu, R. Birjega, M. Dumitru, Journal of Thermal Analysis and Calorimetry, 92, 7–13 (2008)
- [40] ELECTRICAL PROPERTIES OF TiO<sub>2</sub> THIN FILMS, A. Yildiz, S. B. Lisesivdin, M. Kasap, D. Mardare, Journal of Non-Crystalline Solids 354 4944–4947 (2008)
- [41] SUBSTRATE AND Fe-DOPING EFFECTS ON THE HYDROPHILIC PROPERTIES OF TiO<sub>2</sub> THIN FILMS, Diana Mardare, Felicia Iacomi, D. Luca, Thin Solid Films, 515, 6474–6478 (2007)
- [42] ON THE HYDROPHILICITY OF NITROGEN-DOPED TiO<sub>2</sub> THIN FILMS, Diana Mardare, Dumitru Luca, C-M Teodorescu, Dan Macovei, Surface Science, 601, 4515–4520 (2007)
- [43] FE-DOPED TiO<sub>2</sub> THIN FILMS, Diana Mardare, Valentin Nica, C-M Teodorescu, D. Macovei, Surface Science, 601/18, 4479-4483 (2007)
- [44] THE INFLUENCE OF THE SUBSTRATE NATURE ON THE IRON REPARTITION IN THE TITANIA MATRIX, Felicia Iacomi, Diana Mardare, M.N. Grecu, D. Macovei I. Vida-Simiti, Surface Science, 601, 2692–2695 (2007)
- [45] PREPARATION AND CHARACTERIZATION OF INCREASED EFFICIENCY PHOTOCATALYTIC TiO<sub>2-x</sub>N<sub>x</sub> THIN FILMS, D. Luca, C.M. Teodorescu, R.Apetrei and Diana Mardare, Thin Solid Films, 515, 8605–8610 (2007)
- [46] INVESTIGATION OF STRUCTURAL PROPERTIES OF ITO THIN FILMS DEPOSITED ON DIFFERENT SUBSTRATES, M. Purica, F. Iacomi, C.Baban, N. Apetroaie, D. Mardare, D.Luca, Thin Solid Films 515, 8674–8678 (2007)
- [47] HIGH TEMPERATURE VARIABLE-RANGE HOPPING CONDUCTIVITY IN UNDOPED TiO<sub>2</sub> THIN FILM, A. Yildiz, S. B. Lisesivdin, M. Kasap, D. Mardare, Optoelectronics And Advanced Materials – Rapid Communications, 1(10) 531 – 533 (2007).
- [48] A POWER SPECTRAL DENSITY STUDY OF THIN FILMS MORPHOLOGY BASED ON AFM PROFILING, R. Gavrilă, A. Dinescu, D.Mardare, Romanian Journal Of Information Science And Technology, 10(3) 291-300 (2007)
- [49] TiO<sub>2</sub> THIN FILMS DOPED BY CE, NB, FE, DEPOSITED ONTO ITO/GLASS SUBSTRATES, D. Mardare, E. Apostol, J. Optoelectron. Adv. M., 8(3), 914-916 (2006).
- [50] INCREASING SURFACE HYDROPHILICITY OF TITANIA THIN FILMS BY DOPING, D. Luca, Diana Mardare, Felicia Iacomi, C.M.Teodorescu, Applied Surface Science 252, 6122-6126 (2006)
- [51] CHROMIUM-DOPED TITANIUM OXIDE THIN FILMS, Diana Mardare, G. I. Rusu, Felicia Iacomi, M. Girtan, I. Vida-Simiti, Materials Science and Engineering, B, 118(1-3) 187-191 (2005)
- [52] THE SEEBECK COEFFICIENT OF TiO<sub>2</sub> THIN FILMS, Diana Mardare, J. Optoelectron. Adv. M.,7(2), 721-725 (2005).
- [53] COMPARISON OF THE DIELECTRIC PROPERTIES FOR DOPED AND UNDOPED TiO<sub>2</sub> THIN FILMS, D. Mardare, G. I. Rusu, J. Optoelectron. Adv. M., 6(1) 333-336 (2004).
- [54] ON THE STRUCTURE, MORPHOLOGY AND ELECTRICAL CONDUCTIVITIES OF TITANIUM OXIDE THIN FILMS, Diana Mardare, C.Baban, Raluca Gavrilă, M.Modreanu and G.I.Rusu, Surface Science, 507-510, 468-472 (2002).
- [55] Optical Constants of Heat-Treated TiO<sub>2</sub> Thin Films, Diana Mardare, Materials Science and Engineering B, 95/1, 83-87 (2002).
- [56] THE INFLUENCE OF HEAT TREATMENT ON THE OPTICAL PROPERTIES OF TITANIUM OXIDE THIN FILMS, Diana Mardare, G.I.Rusu, Materials Letters, 56/3, 210-214 (2002).

- [57] INFLUENCE OF THE SUBSTRATE TEMPERATURE ON THE OPTICAL BAND GAP OF TITANIUM OXIDE THIN FILMS, Diana Mardare, G.I.Rusu, Physics of Low-Dimensional Structures, 9/10, 111-120 (2002)
- [58] ON THE STRUCTURE AND OPTICAL DIELECTRIC CONSTANTS OF TiO<sub>2</sub> SPUTTERED THIN FILMS, Diana Mardare, G.I. Rusu, J. Optoelectron. Adv. M., 3(1) 95-100 (2001)
- [59] ON THE STRUCTURAL PROPERTIES AND OPTICAL TRANSMITTANCE OF TiO<sub>2</sub> R.F. SPUTTERED THIN FILMS, Diana Mardare, M. Tasca, M. Delibas and G. I. Rusu, Applied Surface Science, 156(1), 200-206 (2000).
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- [61] ON THE OPTICAL CONSTANTS OF TiO<sub>2</sub> THIN FILMS. ELLIPSOMETRIC STUDIES., Diana Mardare and Alexandru Stancu, Materials Research Bulletin, 35 (12), 2017- 2025 (2000).
- [62] OPTICAL DISPERSION ANALYSIS OF TiO<sub>2</sub> THIN FILMS BASED ON VARIABLE - ANGLE SPECTROSCOPIC ELLIPSOMETRY MEASUREMENTS, Diana Mardare and Peter Hones, Materials Science and Engineering B, 68(1), 42-47 (1999)
- [63] STRUCTURAL AND ELECTRICAL PROPERTIES OF TITANIUM OXIDE DC SPUTTERED THINFILMS, Diana Mardare and G. I. Rusu, Physics of Low-Dimensional Structures, 11/12, 69-76 (1999)
- [64] STUDIES ON THE ELECTRONIC TRANSPORT AND OPTICAL PROPERTIES OF SOME NEW CHELATE MODIFIED POLYSULFONES IN THIN FILMS, G. I. Rusu, A. Airinei, C. Baban, G. G. Rusu, Diana Mardare, Mihaela Rusu, Journal of Applied Polymer Sci. 99(1), 100-106 (2006).
- [65] ELECTRICAL AND THERMOELECTRICAL PROPERTIES OF SOME NEW CONJUGATED POLYMERS IN THIN FILMS, M. Rusu, I. Caplanus, D. Mardare, G.I.Rusu, J. Optoelectron. Adv. M., 7(6), 3149-3154 (2005)
- [66] STUDIES ON THE ELECTRONIC TRANSPORT PROPERTIES OF SOME AROMATIC POLYSULFONES IN THIN FILMS, G.I.Rusu, I. Căplănuș, L. Leontie, A. Airinei, E. Butuc, D. Mardare, I.I.Rusu, Acta Materialia, 49, 553-559 (2001)
- [67] ON THE SEMICONDUCTING PROPERTIES OF SOME BISPHENOLIC CHELATE POLYMERS IN THIN FILMS, M. Rusu, A. Airinei, L. Leontie, D. Mardare and G. I. Rusu, Physics of Low-Dimensional Structures, 5/6, 31- 42 (1998).
- [68] ON THE ELECTRICAL PROPERTIES OF SOME NEW DISUBSTITUTED YLIDES IN THIN FILMS, I. Mangalagiu, C.Baban, Diana Mardare, G. I. Rusu, M. Rusu, Applied Surface Science 108, 205-210 (1997).

## Books

1. Transport Phenomena in Solid Bodies, Diana Mardare, Editura "Gh. Asachi", Iași-2002
2. Polycrystalline and Amorphous Thin Films. Titanium Oxide, Diana Mardare, Editura "Politehnicum", Iași-2005.
3. Introduction to Environmental Physics and Ecology, Diana Mardare, Editura "Politehnicum", Iași-2005
4. General Physics – Questions. Problems, Felicia Iacomi, Diana Mardare, Mihaela Bucescu Editura Gama, Iași, 1997.

## Selection of Grants

Proiect DUBNA, cod temă 04-4-1143-2021/2025, poziția nr.58 din Ordinul IUCN nr. 365 din 11.05.2021 - Research of metastable crystal phases in nanoscale oxide systems based on ZrO <sub>2</sub> for applications in adsorption power engineeering and electronics using nuclear physics methods	DIRECTOR	2020-2021
Proiect DUBNA, cod temă 04-4-1122-2015/2020, poziția nr.54 din Ordinul IUCN nr.269/20.05.2020 - The study of water adsorption at nanostructured materials surfaces, by using nuclear-physical methods	DIRECTOR	2019-2020
Bilateral cooperation Roamania -Turkey, Gazi University, Ankara, prof. dr. Mehmet	DIRECTOR	2008-2009

Kasap Studies on the obtaining and characterization of nanostructured TiO <sub>2</sub> , thin films, having applications in environmental physics		
GRANT A, 27/2007 RESEARCH ON THE PROPERTIES OF MICRO AND NANO-STRUCTURED TITANIUM OXIDE THIN FILMS WITH APPLICATIONS IN ECOLOGY	DIRECTOR	2006-2008
Grant Romanian Academy, 37/2007 Titanium oxide thin films characterization for applications in optoelectronics and gas sensing	DIRECTOR	2006-2008
Proiecte complexe de cercetare exploratorie PCCE-ID_76 STIINTA SUPRAFETELOR SI INTERFETELOR: FIZICA, CHIMIE, BIOLOGIE, APLICATIISTIINTA SUPRAFETELOR SI INTERFETELOR: FIZICA, CHIMIE, BIOLOGIE, APLICATII	MEMBER	2010-2013
Grant CERNESIM 257/28.09.2010 (Capacități), CENTRUL INTEGRAT DE STUDII ÎN ȘTIINȚA MEDIULUI PENTRU REGIUNEA DE DEZVOLTARE NORD-EST	MEMBER	2010-2014
Grant Parteneriate, nr. 12-128/2008, Procese si dispozitive pe baza de straturi subtiri oxidice si polimerice pentru electronica si optoelectronica transparenta	MEMBER	2008-2010

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