

## LISTA LUCRĂRILOR ELABORATE ȘI PUBLICATE

Lista celor 10 lucrări considerate relevante	
1.	<b>D.I. Rusu</b> , G.G. Rusu, D. Luca, <i>Structural Characteristics and Optical Properties of Thermally Oxidized Zinc Films</i> , Acta Physica Polonica A, 119 (6), (2011) 850.
2.	<b>D.I. Rusu</b> , <i>Fizica atmosferei, Curs și lucrări practice</i> , Editura ALMA-MATER, Bacău, 2007, ISBN 978-973-8392-80-9.
3.	E. Cuculescu, I. Evtodiev, I. Caraman, L. Leontie, V. Nedeff, <b>D.I. Rusu</b> , <i>Transport and generation–recombination mechanisms of nonequilibrium charge carriers in ZnO/In2O3/InSe: Cd heterojunctions</i> , Thin Solid Films, 519 (2011) 7356–7359.
4.	I. Evtodiev, I. Caraman, L. Leontie, <b>D.I. Rusu</b> , A. Dafinei, <i>Recombination luminescence and trap levels in undoped and Al-doped ZnO thin films on quartz and GaSe (0 0 0 1) substrates</i> , Materials Research Bulletin, 47 (3), 2012, 794-797.
5.	M. Stamate, G. Lazăr, V. Nedeff, I. Lazăr, I. Caraman, I. Rusu, <b>D.I. Rusu</b> , <i>The influence of Reactive Gaseous Flow Rate and Composition on the Optical Properties of TiO<sub>2</sub> Thin Films Deposited by DC Magnetron</i> , Acta Physica Polonica A, vol. 115 (3) (2009), 757.
6.	I. Caraman, D. Untilă, I. Evtodiev, V. Canțer, N.Spălatu, <b>D.I. Rusu</b> , E. Luchian, I. Rotaru, <i>Analysis Of Optical Properties And Structure Of GaTe-CdTe Nanocomposite</i> , Chalcogenide Letters, Vol. 12, No. 12, 2015.
7.	<b>D.I. Rusu</b> , I. Evtodiev, I. Caraman, G. Rusu, <i>Optical and Photoluminescence Characteristics of Polycrystalline Zinc Oxide Thin Films</i> , Journal of Optoelectronics and Biomedical Materials, Vol.6, Issue 3, 2014.
8.	I. Caraman, <b>D.I. Rusu</b> , E.R. Ardeleanu, I. Evtodiev, <i>The Detectors of UV and X Radiation Based on Ga<sub>2</sub>S<sub>3</sub> and GaSe Semiconductors Intercalated with Cd</i> , Journal of Optoelectronics and Biomedical Materials, Vol.7, Nr.1, January-March 2015, p.27-32.
9.	I. Caraman, E. Cuculescu, M. Stamate, G. Lazăr, V. Nedeff, I. Lazăr, <b>D.I. Rusu</b> , <i>Transport Mechanism Analysis of Non-Equilibrium Charge Carrier in Heterojunctions with GaS-CdTe:Mn Thin Films</i> , Thin Solid Films 517 (2009), 2399-2402.
10.	I. Caraman, G. Lazăr, L. Bibire, I. Lazăr, M. Stamate, <b>D.I. Rusu</b> , <i>The optical properties of Cd<sub>1-x</sub>Mn<sub>x</sub>Te (0&lt;x&lt;0,55) solid solutions in monocrystals and thin polycrystalline films</i> , Physica Status Solidi C, No.6, vol. 5, 1203-1206 (2009).

### Teza de doctorat

**Dragoș-Ioan RUSU**, “Contribuții la studiul proprietăților electrice și optice ale straturilor subțiri de ZnO”, Coordonator științific, Prof.dr. Dumitru Luca, Universitatea „Al.I. Cuza” Iași;

- susținere publică la Universitatea „Al.I. Cuza” Iași, în date de 7.06.2013;
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### Cărți

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| 1. | <b>D.I. Rusu</b> , <i>Fizica atmosferei, Curs și lucrări practice</i> , Editura ALMA-MATER, Bacău, 2007, ISBN 978-973-8392-80-9. |
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Articole / studii publicate în reviste de specialitate și volume ale unor manifestări științifice	
<b>Articole publicate în reviste indexate ISI</b>	
1.	<b>D.I. Rusu</b> , G.G. Rusu, D. Luca, <i>Structural Characteristics and Optical Properties of Thermally Oxidized Zinc Films</i> , Acta Physica Polonica A, 119 (6), (2011) 850.
2.	E. Cuculescu, I. Evtodiev, I. Caraman, L. Leontie, V. Nedeff, <b>D.I. Rusu</b> , <i>Transport and generation–recombination mechanisms of nonequilibrium charge carriers in ZnO/In<sub>2</sub>O<sub>3</sub>/InSe: Cd heterojunctions</i> , Thin Solid Films, 519 (2011) 7356–7359.
3.	I. Evtodiev, I. Caraman, L. Leontie, <b>D.I. Rusu</b> , A. Dafinei, <i>Recombination luminescence and trap levels in undoped and Al-doped ZnO thin films on quartz and GaSe (0 0 0 1) substrates</i> , Materials Research Bulletin, 47 (3), 2012, 794-797.
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5.	M. Stamate, G. Lazăr, V. Nedeff, I. Lazăr, I. Caraman, I. Rusu, <b>D.I. Rusu</b> , <i>The influence of Reactive Gaseous Flow Rate and Composition on the Optical Properties of TiO<sub>2</sub> Thin Films Deposited by DC Magnetron</i> , Acta Physica Polonica A, vol. 115 (3) (2009), 757.
6.	I. Caraman, E. Cuculescu, M. Stamate, G. Lazăr, V. Nedeff, I. Lazăr, <b>D.I. Rusu</b> , <i>Transport Mechanism Analysis of Non-Equilibrium Charge Carrier in Heterojunctions with GaS-CdTe:Mn Thin Films</i> , Thin Solid Films 517 (2009), 2399-2402.
<b>Articole publicate în reviste proceedings ISI</b>	
1.	<b>D.I. Rusu</b> , I.I. Rusu, <i>Optical transmission and absorption of ZnO thin films</i> , Romanian Journal of Physics, vol. 43(1-2), 589, 1998.
2.	I.I. Rusu, M. Caraman, <b>D.I. Rusu</b> , <i>Reflexion in the <math>\hbar\omega \ll E_g</math> range for ZnO reactive sputtered films in planar magnetron</i> , Romanian Journal of Physics, 43(1-2), 153, 1998.
3.	I. Caraman, G. Lazăr, L. Bibire, I. Lazăr, M. Stamate, <b>D.I. Rusu</b> , <i>The optical properties of Cd<sub>1-x</sub>Mn<sub>x</sub>Te (0&lt;x&lt;0,55) solid solutions in monocrystals and thin polycrystalline films</i> , Physica Status Solidi C, No.6, vol. 5, 1203-1206 (2009).
4.	I. Caraman, I. Lazăr, M. Caraman, <b>D.I. Rusu</b> , <i>Surface structure of CdS layer at the interface of Cds-SnO<sub>2</sub> junction and the diagram of surface states</i> , Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies, Proc. SPIE, vol. 7297, 2009
<b>Articole publicate în reviste indexate BDI</b>	
1.	<b>D.I. Rusu</b> , I. Evtodiev, I. Caraman, G. Rusu, <i>Optical and Photoluminescence Characteristics of Polycrystalline Zinc Oxide Thin Films</i> , Journal of Optoelectronics and Biomedical Materials, Vol.6, Issue 3, 2014.
2.	I. Caraman, <b>D.I. Rusu</b> , E.R. Ardeleanu, I. Evtodiev, <i>The Detectors of UV and X Radiation Based on Ga<sub>2</sub>S<sub>3</sub> and GaSe Semiconductors Intercalated with Cd</i> , Journal of Optoelectronics and Biomedical Materials, Vol.7, Nr.1, January-March 2015, p.27-32.
3.	E. Moșneguțu, V. Nedeff, N. Bârsan, A. Chițimuș, <b>D.I. Rusu</b> , <i>Influence of screening block supporting way on the behaviour of a solid particle on an oscillating surface</i> , Journal of Engineering Studies and Research, vol. 21(2015), no. 3, p. 51-58
4.	H. Mangeda, V. Nedeff, N. Bârsan, E. Moșneguțu, D. Chițimuș, <b>D.I. Rusu</b> , <i>Aspects Regarding The Kinshasa Urban Landfills Assessment And Proposals For Sustainable Development</i> , Journal of Engineering Studies and Research, vol. 2, no. 1, p.46-54.
5.	I Evtodiev, E Vatavu, <b>D.I. Rusu</b> , I Caraman, G Lazar, M Stamate, A Dafinei, <i>The optical properties of ZnO: Al films deposited on the (0001) surface of ε-GaSe single</i>

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<b>Articole publicate în Proceedings BDI</b>	
1.	E. Moșneguțu, V. Nedeff, M. Panaite, N. Bârsan, D. Chițimuș, <b>D.I. Rusu</b> , O. Bontaș, <i>The Influence Of The Inclination Angle Of Working Surface Over Behavior Of A Solid Particles On A Flat Surface Oscillating</i> , Proceedings of the 6th International Conference On Energy Efficiency And Agricultural Engineering, 11-12 Noiembrie, 2015 Ruse, Bulgaria, ISSN-1311-9974, p. 609-619
<b>Articole / studii publicate în volume ale unor manifestări științifice naționale / internaționale</b>	
1.	<b>D.I. Rusu</b> , I.I. Rusu, <i>On the thermoelectric properties of ZnO films prepared by DC magnetron sputtering</i> , MOCM 14. Volume 2, Romanian Technical Sciences Academy, 2008.
2.	I. Caraman, M. Stamate, M. Caraman, <b>D.I. Rusu</b> , <i>The technique of measurement of modulated optical spectra</i> , Modelling and Optimization in the Machines Building Field, Romanian Technical Sciences Academy, (2) 2007, 104-107.
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4.	<b>D.I. Rusu</b> , I.I. Rusu, <i>Asupra mecanismului conducției electrice în straturi subțiri semiconductoare de ZnO</i> , Sesiunea Științifică – Universitatea Bacău, 1996.
5.	I.I. Rusu, I.D. Bursuc, <b>D.I. Rusu</b> , M. Caraman, I. Vascan, <i>Asupra transmisiei optice în straturi subțiri de ZnO obținute prin pulverizare catodică în sistem magnetron</i> , Colocviul Național de Fizică, Chișinău, Rep. Moldova, 1997.
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7.	I.I. Rusu, I. Vascan, <b>D.I. Rusu</b> , M. Stamate, <i>IR reflection of ZnO thin films</i> , <i>The Third International Conference on Low Dimensional Structures and Devices</i> , 15-17 September 1999, Antalya, Turkey (p.12).
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11.	I.I. Rusu, <b>D.I. Rusu</b> , <i>On the electronic transport and optical properties of polycrystalline ZnO films</i> , First Conference on Advances in Optical Materials, Oct. 2005, Arizona, SUA.
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14.	I. Caraman, E. Cuculescu, M. Stamate, G. Lazar, V. Nedeff, I. Lazar, <b>D.I. Rusu</b> , <i>Transport mechanism analysis of non-equilibrium charge carrier in heterojunctions with GaS-CdTe:Mn thin films</i> , E-MRS Strasbourg, May 2008.
15.	M. Stamate, I. Lazăr, G. Lazăr, I. Caraman, N. Miron, D. Nistor, I. Rusu, <b>D.I. Rusu</b> , <i>AFM studies of TiO<sub>2</sub> thin films deposited through a DC magnetron sputtering method</i> , International Symposium on Applied Physics, 1 <sup>st</sup> Edition, Galati, 2009.
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17.	E. Moşneguţu, V. Nedeff, M. Panainte, N. Bârsan, D. Chiţimuş, <b>D.I. Rusu</b> , O. Bontaş, <i>The influence of the inclination angle of working surface over behavior of a solid particles on a flat surface oscillating</i> , EE&AE'2015, 6th International Scientific Conference, 11-12.11.2015, Ruse, Bulgaria, pag. 609-619.
18.	<b>D.I. Rusu</b> , I. Caraman, <i>On the structural and optical characteristics of polycrystalline ZnO thin films</i> , OPROTEH 2015, Bacău, June 4-6.
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20.	<b>D.I. Rusu</b> , I.I. Rusu, <i>On the thermoelectric properties of zinc oxide films prepared by D.C.magnetron sputtering</i> , Conferinţa Internaţională OPROTEH 2007, Bacău, 1–3 Noiembrie.
21.	H. Mangenda, V. Nedeff, N. Bârsan, E. Moşneguţu, D. Chiţimuş, <b>D.I. Rusu</b> , <i>Aspects regarding the Kinshasa urban landfills assessment and proposals for sustainable development</i> , OPROTEH 2015, Bacău, Romania.
22.	I. Evtodiev, <b>D.I. Rusu</b> , I. Caraman, G. Lazar, M. Stamate, A. Dafinei, <i>Optical properties of the layers ZnO:Al on the surface (0001) of the monocrystals ε-GaSe</i> , 5th International Conference on Materials Science and Condensed Matter Physics, Chisinau (Moldova, Republic of), 13-17 Sep 2010.

Data completării,

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Semnătura,

Asist.dr. Dragoş-Ioan Rusu