

## LIST OF PUBLICATIONS

### **A.BOOKS & MONOGRAPHS -11**

- 1.E. Culea, I. Coroiu, T. Ristoiu "Introducere în fizica corpului solid", Edit. Infotrade, 1998, Cluj-Napoca, 200 p.
- 2.E.Culea and S.Nicoara, "Physics for Engineers", Editura UTPres, Cluj-Napoca, 2001, reeditat in 2002, 250 pagini (in limba engleza).
- 3.M.Culea, E.Culea, Pop Gh.I., S.Nicoara, "Monitorizarea factorilor de mediu", Edit.Risoprint, Cluj-Napoca,2003, 226 pagini.
- 4.M.Culea si E.Culea, "Metode fizice de analiza", Editura Risoprint, Cluj-Napoca, 2004, 250 p.
- 5.E.Culea, "Fizica pentru ingineri", Edit.Risoprint, Cluj-Napoca, 2010, 260 p.
- 6.S. Rada, E.Culea, M. Culea. Handbook on Borates: Chemistry, Production and Applications, Editors: M.P. Chung, 2009, Chap. 1, "Borate-Tellurate Glasses an Alternative of Immobilization of the Hazardous Wastes", 1-17 , ISBN: 978-1-61668263-7, Nova Science Publishers, Inc., New York.
- 7.R.Fechete, D.E.Demco, D.Moldovan, R.I.Chelcea, E.Culea, "Rezonanta magnetica nucleara – metode clasice si moderne", Ed.Risoprint 2010, 250p.
- 8.C.Codreanu, I.Milea, E.Culea, R.Muntean, S.Nicoara, 2.I.Ardelean, "Indrumator de lucrari de laborator de fizica" Lito UTCN, 1997, Cluj-Napoca.
- 9.I.Coroiu si E.Culea, "Fizica", vol.I, Editura UTPres Cluj-Napoca, 1999, 230 pagini.
- 10.I.Milea, E.Culea, I.Gh.Pop, T.Ristoiu, R.Muntean si I.Lazar, "Probleme de fizica" Editura UTPress, Cluj-Napoca, 1999. 120 p.
- 11.E. Culea, "Introducere în fizica corpului solid", Lito UTCN, Cluj-Napoca, 1996, 200 p.

### **B.ARTICLES PUBLISHED IN ISI JOURNALS – 119**

- 1.Semiconducting properties of V<sub>2</sub>O<sub>5</sub>-As<sub>2</sub>O<sub>3</sub> glasses, E.Culea and Al.Nicula, Solid State Commun. 50 10(1984) p.929-932.
- 2.An infrared study of xV<sub>2</sub>O<sub>5</sub>-(1-x)B<sub>2</sub>O<sub>3</sub> glasses, E.Culea, Al.Nicula and I.Bratu, Phys.Stat.Solidi (a), 83 (1984) K15-18.
- 3.An infrared study of V<sub>2</sub>O<sub>5</sub>-As<sub>2</sub>O<sub>3</sub> glasses, E.Culea, Al.Nicula and I.Bratu, Phys.Stat.Solidi(a) 84 (1984) K17-21.

- 4.Semiconducting properties and microstructure of  $x\%V_2O_5(1-x)\%(As_2O_3-B_2O_3)$  glasses, Al.Nicula, E.Culea, C.Sarbu and M.Culea, Mat.Chem.Phys. 13 (1985) p.517-527.
- 5.Magnetic behaviour and microstructure of  $x\%V_2O_5(1-x)\%As_2O_3$  glasses, Al.Nicula, E.Culea and I.Lupsa, J.Non-Cryst.Solids, 79 (1986) p.325-332.
- 6.EPR, optical absorption and microstructure of  $xV_2O_5(1-x)As_2O_3$  glasses, Al.Nicula, E.Culea and I.Milea, Mat.Chem.Phys.14 (1986) p.339-348.
- 7.Electrical properties of  $V_2O_5-B_2O_3$  glasses, E.Culea and Al.Nicula, Solid State Commun.58 8(1986) p.545-549.
- 8.Electrical conductivity of vitreous 75% $V_2O_5$ -25%( $As_2O_3-B_2O_3$ ), E.Culea, C.Gheorghiu and Al.Nicula, Phys.Stat.Solidi(a), 96 (1986) K85-88.
- 9.Determination of the distribution widths of spin Hamiltonian parameters of  $V^{4+}$  ions in oxide glasses, Al.Nicula and E.Culea, Phys.Stat.Solidi (b), 142 (1987) p.265-270.
- 10.Semiconducting properties of  $V_2O_5-As_2O_3$  glasses, E.Culea, Phys.Stat. Solidi (a), 126 (1991) K159-163.
- 11.Spectroscopic properties of some borate glasses containing uranium, E.Culea and I.Milea, J.Mol.Spectroscopy,294 (1993) p.271-273.
- 12.Spectroscopic investigation of  $(0.98-x)Na_2B_4O_7-0.02UO_3-xTiO_2$  glasses, E.Culea, I.Milea, T.Iliescu and I.Bratu, J.Mat.Sci. Lett. 13(1994) p.1171-1174.
- 13.Spectroscopic investigation of the influence of uranium ions on the structure of borate glasses, E.Culea, I.Milea and T.Iliescu, J.Non-Cryst Solids 175 (1994) p.98-101.
- 14.Radioactive behavior of  $UO_3$  immobilized in borate glasses, E.Culea, Adriana Negoescu and C.Cosma, J.Nuclear Materials, 217 (1994) p.220-221.
- 15.Gd-O-Gd dimer formation in  $xGd_2O_3(1-x)Na_2O\cdot 2B_2O_3$  glasses, E.Culea and I.Milea, J.Non-Cryst.Solids, 189 (1995) p.247-250.
16. E.Culea, A.Pop and I.Cosma, Magnetic behaviour of  $xGd_2O_3(1-x)Na_2O\cdot 2B_2O_3$  glasses, J.Magnetism Magn.Mat, 157/158 (1996) p.163-164
- 17.An optical spectroscopic study of borate glasses containing uranium ions, E.Culea, I.Milea, M.Rusu and M.Culea, Fresenius' J.Anal Chem.,355 (1996) p.359-361
- 18.Magnetic and optical properties of borate glasses containing uranium ions, E.Culea and I.Milea J.Non-Cryst.Solids 208 (1996) p.199-203.
- 19.Magnetic behaviour of  $(0.60-x)V_2O_5xCuO-0.40Na_2B_4O_7$  glasses, E.Culea and T.Ristoiu, Rapidly Quenched & Metastable Materials, 225 (1997) p.258-262.

- 20.A method for simultaneously obtaining metallic powders in different quenching method, I.Chicinas, Gh.Matei, N.Jumate and E.Culea, Rapidly Quenched & Metastable Materials, 225 (1997) p.29-33.
- 21.Magnetic behaviour of  $x(0.66\text{CuO}-0.34\text{V}_2\text{O}_5)(1-x)\text{As}_2\text{O}_3$  glasses, E.Culea, J.Non-Cryst.Solids 223 (1998) p.147-151.
- 22.Magnetic and structural behaviour of some borate glasses containing holmium ions, E.Culea, T.Ristoiu and I.Bratu, Mat.Science & Engineering B 57 (1999) 259-261.
- 23.Spectroscopic and magnetic behaviour of some borate glasses containing gadolinium ions, T.Ristoiu, E.Culea and I.Bratu, Materials Letters 41/3 (1999) 135-138.
- 24.Structural and magnetic behaviour of some borate glasses containing dysprosium ions, E.Culea and I.Bratu, J.Non-Cryst. Solids 262 (2000) 287-290.
- 25.Magnetic behaviour of  $x\text{Nd}_2\text{O}_3(1-x)[0.95\text{Na}_2\text{B}_4\text{O}_7-0.05\text{PbO}]$ glasses, Tania Ristoiu, E.Culea and Delia Ristoiu, Europhysics Letters, 52 (6)(2000) 688-691.
- 26.Structural and magnetic behaviour of some borate glasses containing europium ions, E.Culea, Tania Ristoiu, I.Bratu and Delia Ristoiu, Mat.Science & Engineering B75 (2000) 82-84.
- 27.IR spectrosc.& magnetic behaviour of  $x\text{Nd}_2\text{O}_3(1-x)\text{Na}_2\text{B}_4\text{O}_7$ glasses, E.Culea and I.Bratu, Acta Materialia, 49/1 (2001) 123-125.
- 28.Magnetization behaviour of  $x\text{Eu}_2\text{O}_3(1-x)\text{Na}_2\text{B}_4\text{O}_7$  glasses, Tania Ristoiu and E.Culea, Journal of Non-Crystalline Solids, 279 (2001) 93-96.
- 29.Gas chromatography-mass spectrometry applications in smokers, M.Culea, O.Cozar, E.Culea, Indoor and Built Environment, 2004, 137-141.
- 30.SIM-GC-MS Determination of Anaesthetic Fumes in Surgery Halls, S.Nicoara, M.Culea, A.Nica, E.Culea, O.Cozar, Indoor Built Environment, 2004, 231-238.
- 31.Spectroscopic and magnetic behaviour of  $x\text{Gd}_2\text{O}_3(1-x)(\text{Bi}_2\text{O}_3\text{PbO})$  glasses, E.Culea, L.Pop, S.Simon, Materials Science & Engineering B 112 (2004) 59-63.
- 32.Spectroscopic and magnetic behaviour of  $x\text{Nd}_2\text{O}_3(1-x)(\text{Bi}_2\text{O}_3\text{PbO})$  glasses, E.Culea, L.Pop, V.Simon, M.Neumann, I.Bratu, J.Non-Cryst. Solids 337 (2004) 62-67.
- 33.Spectroscopic and magnetic behaviour of  $x\text{Gd}_2\text{O}_3(1-x)(\text{Bi}_2\text{O}_3\text{PbO})$  glasses, E.Culea, L.Pop, S.Simon, Materials Science & Engineering B 112 (2004) 59-63.
- 34.Spectroscopic and structural behaviour of  $x\text{Eu}_2\text{O}_3(1-x)(3\text{Bi}_2\text{O}_3\text{PbO})$  glasses, E.Culea, L.Pop, S.Simon, M.Culea, J.Magnetism and Magnetic Materials 290-291 (2005) 1465-1468.
- 35.Magnetic and structural behaviour of the sol-gel derived iron aluminosilicate glass-ceramics, I.Coroiu, E.Culea, Al.Darabont, J.Magnetism and Magnetic Materials 290-291 (2005) 997-1000

- 36.Magnetic and structural behaviour of  $x\text{Eu}_2\text{O}_3(1-x)(3\text{Bi}_2\text{O}_3\text{-PbO})$  glasses, E.Culea, L.Pop, S.Simon, M.Culea, J.Magnetism and Magnetic Materials 290-291 (2005) 1465-1468
- 37.Magnetic and structural behaviour of the sol-gel-derivated iron a aluminosilicate, I.Coroiu, E.Culea, Al. Darabont, J.Magnetism and Magnetic Materials 290-291 (2005) 997-1000
- 38.Selected Ion Monitoring-Gas Chromatography/ Mass Spectrometry Determination of Halothane Fumes in Operating Theatres, Indoor and Built Environment, S.Nicoara, M.Culea, A.N.Nica, E.Culea, O.Cozar, 14/(2005) 405-410.
- 39.PHAs in Cigarette Smoke by Gas Chromatography-Mass Spectrometry, M.Culea, O.cozar, E.Culea, 14,3 (2005) 283-292
- 40.Analysis of aroma compounds by gas chromatography and gas chromatography/ mass spectrometry: comparative extraction methods, M.Culea,M.Apetri,C.Gherman, E.Culea, Romanian Journal of Physics, 46, 7-8 (2001) 451-450
- 41.Crystallization proces in  $x\text{Gd}_2\text{O}_3(1-x)(0.95\text{SiO}_2\text{ } 0.05\text{Na}_2\text{O})$  ceramic system, I.Coroiu, Gh.Borodi, I.Vida-Simiti, Al.Darabont, I.Bratu, E.Culea, N.Jumate, Journal of Optoelectronics and Advanced Materials, Vol.8, No.2, April 2006, 529
- 42.Magnetic properties of some gadolinium silica glass ceramics, I.Coroiu, E.Culea,I.Vida Simiti, Al.Darabont, Journal of Optoelectronics and Advanced Materials, Vol.8, No.2, April 2006, 526
- 43.Magnetic behaviour of  $\text{U}(\text{T}_x\text{Al}_{1-x})_2$  compounds ( $\text{T}=\text{Co, Ni, Mn}$ ), P.Lucaci and E.Culea, Modern Physics Letters B, Vol.20, No. 26, 2006, p. 1677-1683
- 44.Low-temperature study of magnetic behaviour of europium in lead-bismuthate glasses, L.Pop, T.Ristoiu, N.Dempsey, M.Culea and E.Culea, Modern Physics Letters B, Vol.20, No.30, 2006, p.1957-1962
- 45.Nanostructured phases in bismuthate glasses containing rare earth ions, E.Culea, I.Bratu, M.Bogdan, L.Giurgiu, I.Vida-Simiti, M.Culea, L.Pop, M.Bosca, Journal of Optoelectronics and Advanced Materials, Vol.8, No.3, June 2006, 1140.
- 46.Er-doped lead bismuthate glasses: magnetic and structural properties, L.Pop, M.Culea, M.Bosca, E.Culea, Modern Physics Letters B 21 (2007) 261-267.
- 47.L. Pop, E. Culea, R. Muntean, M. Culea, M. Bosca, Structural characteristics of terbium - lead - bismuthate glasses, Journal of Optoelectronics and Advanced Materials 9 (2007) 1687-1689.
- 48.L. Pop, E. Culea, M. Bosca, R. Muntean, M. Culea, The influence of erbium ions on  $\text{Bi}_2\text{O}_3\text{ - PbO}$  glass structure, Journal of Optoelectronics and Advanced Materials 9 (2007) 561-563.

- 49.P.Pascuta, G.Borodi, E.Culea, Influence of europium ions on structure and crystallization properties of bismuth borate glasses and glass ceramics, *J.Non-Cryst. Solids*, 2008, 354 (52-54), 5475-5479.
- 50.P.Pascuta, E.Culea, FTIR spectroscopic study of some bismuth germanate glasses containing gadolinium ions, *Materials Letters*, 2008, 62(25), 4127-4129.
- 51.P.Pascuta, M.Bosca, M.Culea, S.Simon and E.Culea, EPR and magnetic susceptibility studies of  $Gd^{3+}$  ions doped bismuth germanate glass matrix, *Modern Physics Letters B*, 2008, 22(6), 447-453.
- 52.S.Rada, P.Pascuta, M.Bosca, M.Culea, L.Pop, E.Culea, Structural properties of the boro-bismuthate glasses containing gadolinium ions, *Vibrational Spectroscopy*, 2008, 48(2), 255-258.
- 53.S.Rada, M.Culea, M.Neumann, E.Culea, Structural role of europium ions in lead-borate glasses interffered from spectroscopic and DFT studies, *Chemical Physics Letters*, 2008, 460, 196-199.
- 54.P.Pascuta, L.Pop, S.Rada, M.Bosca, E.Culea, The local structure of bismuth borate glasses doped with  $Eu_2O_3$  evidenced by FTIR Spectroscopy, *Journal of Materials Science: Materials in Electronics*, 2008, 19, 424-428.
- 55.S.Rada, E.Culea, V.Rus, M.Pica, M.Culea, The local structure of gadolinium vanado-tellurite glasses, *J. Mater. Sci.*, 2008, 43 (10), 3713-3716.
- 56.P.Pascuta, L.Pop, S.Rada, M.Bosca, E.Culea, The local structure of bismuth germanate glasses and glass ceramics doped with europium ions evidenced by FTIR spectroscopy, *Vibrational Spectroscopy*, 2008, 48(2), 281-284.
- 57.S.Rada, E.Culea, M.Bosca, M.Culea, R.Muntean, P.Pascuta, Spectroscopic and quantum mechanical investigation of the boro-bismuthate glasses and glass ceramics structure, *Vibrational Spectroscopy*, 2008, 48(2), 285-288.
- 58.L.Pop, E.Culea, M.Bosca, M.Neumann, R.Muntean, P.Pascuta, S.Rada, X-ray photoelectron spectroscopic studies of lead-bismuthate glasses with rare earth, *Journal of Optoelectronics and Adv. Mater.*, 2008, 10(3), 619-622.
- 59.S.Rada, E.Culea, V.Rus, Spectroscopic and quantum chemical investigation of the  $4Bi_2O_3 \cdot B_2O_3$  glass structure, *J. Mater. Sci.*, 2008, 43(18), 6094-6098.
- 60.S.Rada, M.Culea, M.Rada, E.Culea, Effect of the introduction of vanadium pentaoxide in phosphate-tellurite glasses containing gadolinium ions, *J. Mater. Sci.*, 2008, 43(18), 6122-6125.
- 61.P.Pascuta, M.Bosca, S.Rada, L. Pop, E.Culea, Magnetic behaviuor of europium ions in bismuth-borate glass matrix, *Journal of Optoelectronics and Adv. Mater.*, 2008, 10(9), 2210.

- 62.S.Rada, E.Culea, M.Bosca, M.Culea, P. Pascuta, M.Neumann, Effect of the introduction of gadolinium ions in boro-tellurite glasses, *Journal of Optoelectronics and Adv. Mater.*, 2008, 10(9), 2316.
- 63.P.Pașcuță, M.Boșca, S.Rada, M.Culea, I.Bratu, E.Culea, FTIR spectroscopic study of  $\text{Gd}_2\text{O}_3\text{-Bi}_2\text{O}_3\text{-B}_2\text{O}_3$  glasses, *Journal of Optoelectronics and Adv. Mater.*, 2008, 10(9), 2416-2419.
- 64.S.Rada, E.Culea, M.Culea, Gadolinium doping of vanadate-tellurate glasses and glass ceramics, *J. Mater. Sci.*, 2008, 43(19), 6480-6485.
- 65.S.Rada, M.Culea, E.Culea, Toward modeling phosphate-tellurate glasses. The devitrification and the addition of gadolinium ions behavior, *J. Physical Chemistry A*, 2008, 112(44), 11251-11255.
66. S.Rada, M.Culea, E.Culea, Structure of  $\text{TeO}_2\text{-B}_2\text{O}_3$  glasses inferred from infrared spectroscopy and DFT calculations, *J. Non-Cryst. Solids*, 2008, 354(52-54) 5491-5495.
- 67.S.Rada, P.Pascuta, M.Bosca, M.Culea, V.Rus, M.Neumann, E.Culea, Spectroscopic and quantum chemical investigation of the boro-bismuthate glass structure, *J. Optoelectronics and Adv. Mater.*, 2008, 10 (12), 3221-3224.
- 68.E. Culea, M. Flora, EPR and magnetic behaviour of some borate glasses containing  $\text{Dy}_2\text{O}_3$ , *Journal of Optoelectronics and Advanced Materials* 10 (2008) 2413-2415.
69. L. Pop, M. Bosca, C. Neamtu, M. Culea, R. Muntean, E. Culea, Structural and optical characteristics of some bismuthate glass with rare earth ions, *Journal of Optoelectronics and Advanced Materials* 10 (2008) 3033-3037.
70. D.Moldovan, R.Fechete, D.E.Demco, E.Culea and B. Blümich, Monte - Carlo simulations of the two-dimensional NMR  $T_2\text{-}T_2$  exchange of fluids in porous media, *Diffusion Fundamentals*, 10 20.1 - 20.3 (2009).
71. I.Cosma , E.Culea, R.Fechete and S.Nicoara, Statistics of interatomic Ni-Ni bonds in Ni-based ternary solid solutions with non magnetic elements and their magnetic behavior, *Modern Phys. Lett. B*, Vol. 23, No. 9 1199-1206 (2009).
72. R.I.Chelcea, R.Fechete, E.Culea, D.E.Demco and B.Blümich, Distributions of transverse relaxation times for soft-solids measured in strongly inhomogeneous magnetic fields, *J. Magn. Reson.*, 196, 178-190 (2009).
73. M.Bosca, L.Pop, G.Borodi, P.Pascuta, E.Culea, XRD and FTIR structural investigations of erbium doped bismuth-lead-silver glasses and glass ceramics, *J. Alloys & Comp.* 2009, 479(1-2), 579-582.
74. E.Culea, L.Pop, P.Pascuta, M. Bosca, Novel bismuth-lead-silver glasses and glass ceramics doped with neodymium ions, *J. Molecular Structure*, 924-926, 2009, 192-195.

- 75.P.Pascuta, G.Borodi, E.Culea, Structural investigation of bismuth borate glass ceramics containing gadolinium ions by X-ray diffraction and FTIR spectroscopy, *J. Materials Science: Materials in Electronics*, 2009, 20(4), 360-365.
- 76.S.Rada, P.Pascuta, M.Culea, V.Maties, M.Rada, M.Barlea, E.Culea, The local structure of europium-lead-borate glass ceramics, *J. Molecular Structure*, 924-926, 2009, 89-92.
77. P.Pascuta, S.Rada, G.Borodi, M.Bosca, L. Pop, E.Culea, Influence of europium ions on structure and crystallization properties of bismuth-alumino-borate glasses and glass ceramics, *J.Molecular Structure*, 924-926, 2009, 214-220.
78. S.Rada, E.Culea, M.Rada, P.Pascuta, V. Maties, Structural and electronic properties of tellurite glasses, *J. Mater. Sci.*, 2009, 44, 3235-3240.
79. S.Rada, E.Culea, FTIR spectroscopic and DFT theoretical study on structure of europium-phosphate-tellurate glasses and glass ceramics, *J. Molec. Struct.*, 2009, 929, 141-148.
80. S. Rada, M. Bosca, E. Culea, M. Rada, V. Dan, V. Maties, The local structure of gadolinium vanadate-tellurate glasses and glass ceramics:  $\text{Te}_2\text{V}_2\text{O}_9$  crystalline phase, *Struct. Chem.*, 2009, 20(5) 801-805.
81. S.Rada, M.Culea, M.Rada, P.Pascuta, V.Maties, E.Culea, The double role played by the  $\text{Gd}_2\text{O}_3$  in the gadolinium-aluminum-borate-bismuthate quaternary glass forming tendency.  $\text{GdBO}_3$  crystalline phase, *J. Molec. Struct.*, 2009, 937, 70-74.
82. S.Rada, T.Ristoiu, M.Rada, I.Coroiu, V.Maties, E.Culea, Towards modeling Gadolinium-Lead-Borate Glasses, *Materials Research Bulletin*, 2010, 45, 69-73.
83. S.Rada, M.Culea, M.Rada, E.Culea, Competitive role of tellurium and gadolinium cations in structural aspects of gadolinium-phosphate-tellurate glasses, *J. Alloys & Comp.* 2010, 490, 270-276.
84. M.Rada, V.Maties, M.Culea, S.Rada, E.Culea, Dual role of the six-coordinated molybdenum and lead ions in novel of photochromic properties of the molybdenum-lead-borate glasses, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2010, 75, 507-510.
85. M.Rada, E.Culea, S.Rada, V.Maties, P.Pascuta, Novel structural properties of the lead-vanadate-tellurate glass ceramics, *J. Materials Science*, 2010, 45, 1487-1494.
86. S.Rada, M.Rada, E.Culea, Infrared spectroscopic and DFT investigations of the vanadate-tellurate vitreous systems, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2010, 75, 846-851.
- 87.S.Rada, V.Dan, M.Rada, E.Culea, Gadolinium-enviroment in borate-tellurate glass ceramics studied by FTIR and EPR spectroscopy, *J. Non-Cryst. Solids*, 2010, 356, 474-479.

88. S.Rada, E.Culea, M. Neumann, Experimental and theoretical studies of the structure of tellurate-borate glasses network, *J. Molecular Modeling*, 16, 2010, 1333-1338, doi.10.1007/s 00894-009-0641-8.
- 89.S. Rada, E. Culea, M. Rada, Towards understanding of the germanate anomaly in europium-lead-germanate glasses, *J.Non-Cryst. Solids* 356 (2010) 1277-1281.
- 90.M. Rada, V. Maties, S. Rada, E. Culea, Novel layered structures in lead-vanadate-tellurate unconventional glass ceramics, *J.Non-Cryst.Solids* 356 (2010) 1267-1271.
- 91.S. Rada, R. Chelcea, M. Culea, A. Dehelean, E. Culea, Experimental and theoretical investigations of the copper-lead-germanate glasses, *J. Molecular Structure* 977 ( 2010) 170-174.
- 93.E. Culea, L. Pop, M. Bosca, Structural and physical characteristics of  $\text{CeO}_2\text{-GeO}_2\text{-PbO}$  glasses and glass ceramics, *J. Alloys and Compounds*, 505, 2 (2010) 754-757.
94. S. Rada, M. Neumann, E. Culea, Experimental and theoretical investigations on the structure of the lead-vandate-tellurate unconventional glasses, *Solid State Ionics*, 181, (2010) 1164-1169.
95. S. Rada, E. Culea, Novel photosensitive properties of the gadolinium-lead-germanate glasses, *Molecular Physics*, 108(14) (2010) 1877-1886.
96. S. Rada, Ristoiu, T., Rada, M., Dan, V., Coroiu, I., Barlea, M., Rusu, T., Culea, E., Towards understanding of the photosensitive properties in lead-vanadate-tellurate unconventional glasses, *Materials Research Bulletin*, 45 (2010) 1598-1602 .
97. S. Rada, R. Chelcea, E. Culea, The presence of fivefold germanium as a possible transitional phase in the iron-lead-germanate glass system, *J. Mater. Sci.* 45(22) (2010) 6025-6029.
- 98.Rada, S., Dehelean, A., Stan, M., Chelcea, R., Culea, E., Structural studies on iron-tellurite glasses prepared by sol-gel method, *J.Alloys and Compounds* 509(1) (2011) 147-151.
- 99.Rada, S., Dehelean, A., Culea, E., Dual role of the six-coordinated lead and copper ions in structure of the copper-lead-tellurate glasses, *J. Alloys and Compounds*, 509(2), 2011, 321-325.
- 100.S. Rada, R. Chelcea, E. Culea, Experimental and theoretical investigations on the structure-properties interrelationships of the gadolinium-vanadate-germanate glasses, *J. Molecular Modeling*, 2011, 17, 165-171.
- 101.S. Rada, R. Chelcea, M. Culea, E. Culea, The improvement of the amorphous environment of the germanate-tellurate glasses in the presence of the gadolinium ions, *J. Materials Science*, 2011, 46, 1289-1294, DOI 10.1007/s10853-010-4913-6
- 102.S. Rada, M. Rada, E. Culea, Structural and optical properties of the gadolinium lead-germanate glasses, *J. Non-Cryst. Solids*, 2011, 357(1), 62-66.

- 103.S. Rada, E. Culea, Structural and optical properties in gadolinium-aluminum-lead-germanate quaternary glasses, *Journal of Non-Crystalline Solids*, 2011, 357(7) 1724-1728.
- 104.E.Culea, Structural and magnetic behaviour of lead–bismuthate glasses containing rare earth ions, *J.Non-Cryst.Solids*, 357, 1 (2011) 50-54.
- 105.S. Rada, A.Dehelean, E.Culea, FTIR, Raman, and UV-Vis spectroscopic and DFT investigations of the structure of iron-lead-tellurate glasses, *J. Molecular Modeling*, 2011, Online First™, 20 December 2010, doi: 10.1007/s00894-010-0911-5.
- 106.S.Rada, A.Dehelean, M.Culea, E.Culea, Dinuclear manganese centers in the manganese-lead-tellurate glasses, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, A 79 (2011) 320–324, doi:10.1016/j.saa.2011.02.025.
- 107.R.Chelcea, S.Rada, E.Culea, M.Rada, Structural study of ternary iron-lead-germanate glass ceramics, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, A 79 (2011) 481–485, doi:10.1016/j.saa.2011.03.016.
- 108.P.Pascuta, G.Borodi, N.Jumate, I.Vida-Simiti, D.Viorel, E.Culea, The structural role of manganese ions in some zinc phosphate glasses and glass ceramics, *J. Alloys and Compounds* 504 (2010) 479–483..
- 109.P.Pascuta, G.Borodi, A.Pop, V.Dan, E.Culea, Influence of iron ions on the structural and magnetic properties of some zinc-phosphate glasses, *Materials Chemistry and Physics*, 123 (2010) 767–771
- 110.M.Rada, S.Rada, E.Culea, Structural properties of the tungsten–lead–borate glasses before and after laser irradiation, *J.Non-Cryst.Solids* 357 (2011) 2024–2028.
- 111.P.Pascuta, A.Vladescu, G.Borodi, E.Culea, R.Tetean, Structural and magnetic properties of zinc ferrite incorporated in amorphous matrix, *Ceramics International* 37 (2011) 3343–3349.
- 112.P.Pascuta, E.Culea, Structural and thermal properties of some zinc borate glasses containing gadolinium ions, *J Mater Sci: Mater Electron* (2011) 22:1060–1066, DOI 10.1007/s10854-010-0259-8.
- 113.P.Pascuta, A.Vladescu, G.Borodi, E.Culea, R.Tetean, Synthesis, structural and magnetic characterization of iron-zinc-borate glass ceramics containing nanocrystalline zinc ferrite, *J Mater Sci: Mater Electron* DOI 10.1007/s10854-011-0444-4.
- 114.P.Pascuta, M.Bosca, Gh.Borodi, E.Culea, Thermal, structural and magnetic properties of some zinc phosphate glasses doped with manganese ions, *J. Alloys and Compounds* 509 (2011) 4314–4319.
115. S. Rada, E. Culea, M. Rada, The experimental and theoretical investigations on the structure of the gadolinium–lead–tellurate glasses, *Materials Chemistry and Physics* 128 (2011) 464–469.

116. S. Rada , P. Pascuta, L. Rus, M. Rada, E. Culea, Spectroscopic properties and ab initio calculations on the structure of erbium–zinc–borate glasses and glass ceramics, *J. Non-Cryst. Solids* 358 (2011) 30–35.
117. S. Rada , A. Dehelean, E. Culea, FTIR and UV–VIS spectroscopy investigations on the structure of the europium–lead–tellurate glasses, *J. Non-Cryst. Solids* 357 (2011) 3070–3073.
118. S. Rada, P. Pascuta, M. Rada, E. Culea, Effects of samarium (III) oxide content on structural investigations of the samarium–vanadate–tellurate glasses and glass ceramics, *J. Non-Cryst. Solids* 357 (2011) 3405–3409.
119. L.Pop, M.Bosca, E.Culea, Spectroscopic and magnetic behavior of Gd and Nd ions in lead–germanate glasses, *J. Alloys & Comp.* 525 (2012) 58-62.

#### **C.ARTICLES PUBLISHED IN BDI JOURNALS -25**

- 1.EPR and optical absorption of V4+ ions in borate glasses Al.Nicula, E.Culea, L.Stanescu, *Studia Univ.Babes-Bolyai, Physica*, 1 1978, p.55-58.
- 2.Study of the microphase separation process in borate glasses , E.Culea, Al.Nicula, I.Bratu, I.Biris, *Studia Univ.Babes-Bolyai, Physica*, XXVIII, 1983, p.2428.
- 3.Electrical properties of V2O5-As2O3 glasses E.Culea, Al.Nicula, M.Culea, *Studia Univ.Babes-Bolyai, Physica*,1 1984,p.3.
- 4.Study of the electrical properties of some silicon carbide masses for the electrotechnical industry, I.Coroiu, E.Culea, M.Gorea and L.Gagea, *Materiale de Constructie*, XX, 2-3, 1990,p.127.
- 5.Study of the redox equilibrium of uranium ions in borate glasses, E.Culea si I.Milea, *Studia Univ.Babes-Bolyai, Physica*, XXXVIII, 2 1993, p.105-108.
- 6.IR spectosc. characterization of (100-x)%CuO.V2O5)-x%As2O3 glasses, E.Culea, I.Milea and I.Bratu, *Balkan Physics Letters* 2 (1994) p.280-283.
- 7.Raman investigation of structural changes determined by Y and Gd ions in some borate glasses, I.Milea, E.Culea and T.Iliescu, *Balkan Physics Letters* 2 (1994) p.285-288.
- 8.Magnetic and Raman spectroscopic behavior of 0.10[xGd<sub>2</sub>O<sub>3</sub>(1-x)Y<sub>2</sub>O<sub>3</sub> 0.90Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub> glasses, E.Culea, Rodica Ordean, Tania Ristoiu, I.Milea and I.Chicinas, *Studia Univ.Babes-Bolyai, seria Physica*, XLII, 2, 1997, p.16-24.
- 9.Beta radioactivity of immobilized in some borate glass matrices, E.Culea, T.Ristoiu and C.Cosma, *Studia Univ.Babes-Bolyai, seria Physica*, XLII, 2, 1997, p.50-53.

- 10.Magnetic behavior of glasses with  $Dy^{3+}$  and  $Ho^{3+}$  ions, E.Culea, M.Flora and I.Pop, Balkan Physics Let.5 suppl.1997, p.187-190.
- 11.Magnetic behavior of  $0.80(V_2O_5-CuO)-0.20As_2O_3$ , E.Culea, T.Ristoiu and I.Cosma, Balkan Physics Let.5, suppl.1997, p.856-859.
- 12.Magnetic and structural properties of some glasses containing rare earth ions with applications in telecommunications, E.Culea and Gog Lidia, Studia Univ.Babes-Bolyai, seria Physica, 1(2001) 204-209.
- 13.Study of magnetic properties of  $5Fe_2O_3\cdot3Gd_2O_3$  micro and nanoparticles, I.Coroiu, Al.Darabont, M.Bogdan and E.Culea, Studia Univ.Babes-Bolyai, seria Physica, 1(2001) 493-499.
- 14.Magnetic behaviour of  $xEu_2O_3(1-x)Na_2B_4O_7$  glasses, T.Ristoiu and E.Culea, Studia Univ.Babes-Bolyai, seria Physica, 5 (2002) 112-116.
- 15.Trace analyses by gas chromatography-mass spectrometry, M.Culea, O.Cozar, D.Ristoiu, E.Culea, Analele Universității de Vest din Timișoara, volumul 44/2004, p.97-99.
- 16.R.Marcean-Chelcea, R.Fechete, E.Culea, D.E.Demco, B.Blümich, Segmental Order and Dynamics of Polymer Networks Using Dipolar Correlation Effect Measured in Low Field NMR, American Institute of Physics CP899, 561 (2007).
- 17.R.Marcean-Chelcea, R.Fechete, E.Culea, D.E.Demco, B.Blümich, Microscopic and Macroscopic Properties Correlations of Polymer Networks Measured in Low Field NMR, American Institute of Physics CP899, 567 (2007).
- 18.L.Pop, E.Culea, M.Culea, S.Rada, P.Pascuta, R.Fechete, M.Bosca, R.Chelcea, Structural properties of  $Bi_2O_3-PbO$  glasses doped with rare-earth ions, Analele Universitatii de Vest din Timisoara, Seria Fizica, 2006, vol. XLVIII, 204-207.
- 19.E.Culea, L.Pop, R.Fechete, P.Pascuta, S.Rada, M.Culea, M.Bosca, R.Chelcea, Spectroscopic and magnetic properties of  $xGd_2O_3\cdot(1-x)[0,15Bi_2O_3-0,85TeO_2]$  glasses, Analele Universitatii de Vest din Timisoara, Seria Fizica, 2006, vol. XLIX, 55-58.
- 20.E.Culea, L.Pop, M.Bosca, T.Rusu, P.Pascuta, S.Rada, FTIR spectroscopic study of some lead germanate glasses, J. Physics: Conf. Series 182 (2009) 012061.
- 21.E.Culea, L.Pop, M.Bosca,V. Dan, P.Pascuta, S.Rada, Structural and physical characteristics of  $xGd_2O_3(100-x)[Bi_2O_3B_2O_3]$  glasses, J. Physics: Conf. Series 182 (2009) 012062.
- 22.P.Pascuta, G.Borodi, M.Bosca, L.Pop, S.Rada, E.Culea, Preparation and structural characterization of some  $Fe_2O_3-B_2O_3-ZnO$  glasses and glass ceramics, J. Physics: Conf. Series 182 (2009) 012072.

- 23.M.Rada, E.Culea, S.Rada, P.Pascuta, M.Culea, V.Dan, T.Rusu, V.Maties, I.Bratu, The local structure of gadolinium-botate-tellurate vitroceramic investigated by FTIR and EPR spectroscopy, J. Physics: Conf. Series 182 (2009) 012074.
- 24.S.Rada, E.Culea, M.Rada, V.Maties, M.Bosca, L.Pop, R.Fechete, R.Chelcea, D. Moldovan, Immobilization of gadolinium in borate-tellurate glasses, J. Physics: Conf. Series 182 (2009) 012075.
25. E. Culea, S. Rada, Influence of gadolinium ions on the structural and crystallization properties of the gadolinium-tellurate-vanadate glass ceramics, Studia Universitatis Babes-Bolyai, Physica, LV(1) (2010) 25-34.

#### **D.PUBLICATIONS IN VOLUMES OF INTERNATIONAL CONFERENCES - 100**

- 1.An EPR study of As<sub>2</sub>O<sub>3</sub>-V<sub>2</sub>O<sub>5</sub> glasses, E.Culea and Al.Nicula, XXII Congress Ampere on Resonance and Related Phenomena, Zurich, Switzerland, 1984, p.101.
- 2.Semiconducting properties of glasses, E.Culea, Int.Conf.on Amorphous Semiconductors,1987, Sinaia, Romania, p.34.
- 3.Investigation of low frequency noise in semiconduct.glasses containing V<sub>2</sub>O<sub>5</sub>, D.Ursutiu, E.Culea and Al.Nicula, Int.Conf.on Amorphous Semiconductors, 1987, Sinaia, Romania, p.116.
- 4.Malabsorption Studies in Infants using Stable Isotopes and Isotope Dilution Mass Spectrometry, M.Culea, N.Palibroda, M.Chiriac, Z.Moldovan, N.Miu, E.Culea, 12th IMSC'91 Amsterdam, International Mass Spectrometry Conference, 26-30Aug. 1991, p.251.
- 5.Spectroscopic properties of some borate glasses containing uranium ions, E.Culea and I.Milea, XXI European Congress on Molec.Spectroscopy, Vienna, Austria, 1992, p.171.
- 6.Optical properties of uranium ions in some borate glasses, E.Culea and I.Milea, Conf.of the European physical Society "Trends in Physics, 14-17, September 1993, Firenze, Italy, p.212.
- 7.Investigation of the semiconducting behaviour of some arsenate glasses containing V<sub>2</sub>O<sub>5</sub> and As<sub>2</sub>O<sub>3</sub>, E.Culea and I.Milea, Conf.of the European Physical Society "Trends in Physics", 14-17 September 1993, Firenze, Italy, p.329.
- 8.Spectrosc.and radioactive behaviour of (0.93-x)Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub>-0.05Al<sub>2</sub>O<sub>3</sub>-xUO<sub>3</sub>glasses, E.Culea,I.Milea,G.Arghir and Adriana Negoescu, I.Int.Conf.Materials & Manufacturing Technologies, Cluj, 17 mai 1994, p.71.
- 9.IR spectroscopic characterization of (100-x%)(CuO.V<sub>2</sub>O<sub>5</sub>)-x%As<sub>2</sub>O<sub>3</sub> glasses, E.Culea, I.Milea and I.Bratu, 2nd General Conference of the Balkan Physical Union, 12-14, Sept.1994, Izmir, Turkey, p.152.

- 10.Raman investigation of structural changes determined by Y and Gd ions in some borate glasses, I.Milea, E.Culea and T.Iliescu, 2nd General Conference of the Balkan Physical Union 12-14 Sept.1994, Izmir, Turkey.
- 11.Magnetic behaviour of  $x\text{Gd}_2\text{O}_3(1-x)\text{Na}_2\text{O} \cdot 2\text{B}_2\text{O}_3$  glasses, E.Culea, A.Pop and I.Cosma, 6th European Magnetic Materials and Applications Conference Wien, Austria, September 4-8, 1995, p.77.
- 12.An optical spectroscopic study of borate glasses containing uranium ions, E.Culea, I.Milea, Maria Rusu and Monica Culea, Colloquium Spectroscopicum Internationale XXIX, Leipzig, Germany, 27 August-1 September 1995, p.246.
- 13.Magnetic behaviour of  $x\%(2\text{CuO} \cdot \text{V}_2\text{O}_5) \cdot (100-x)\%\text{As}_2\text{O}_3$  glasses, E.Culea, Soft Magnetic Materials Conference, Krakow, Poland, 12-14 September 1995, p.43.
- 14.Magnetic behavior of  $(0.60-x)\text{V}_2\text{O}_5 \cdot x\text{CuO} \cdot 0.40\text{Na}_2\text{O} \cdot 2\text{B}_2\text{O}_3$  glasses, E.Culea and T.Ristoiu, Conference on Rapidly Quenched and Metastable Materials, 25-30 August 1996, Bratislava, pag.302.
- 15.Magnetic behavior of  $x\text{Dy}_2\text{O}_3(1-x)\text{Na}_2\text{O} \cdot 2\text{B}_2\text{O}_3$ , E.Culea, M.Flora, I.Pop and I.Cosma, 7th International Conference on Ferrites, Bordeaux, 3-6 September 1996, p.187.
- 16.Magnetic behavior of  $(0.60-x)\text{V}_2\text{O}_5 \cdot x\text{CuO} \cdot 0.40\text{Na}_2\text{B}_4\text{O}_7$  glasses, E.Culea and T.Ristoiu, 7th International Conference on Ferrites, Bordeaux, 3-6 September 1996, p.98.
- 17.Immobilization of uranium ions in vitreous matrices, E.Culea and I.Milea, 10th General Conference of the European Physical Society, Trends in Physics, 9-13 September 1996, Sevilla.
- 18.Magnetic behaviour of some borate glasses containing  $\text{Dy}_2\text{O}_3$ , E.Culea,M.Flora, I.Pop and R.Ordean, Vth Conf.on Magnetic Materials and Superconductors, 12-16 September 1996,Cluj-Napoca, Romania.
- 19.Magnetic behavior of glasses with  $\text{Dy}^{3+}$  and  $\text{Ho}^{3+}$  ions, E.Culea, M.Flora and I.Pop, 3rd General Conference of the Balkan Physical Union, 2-5 September 1997, p.223.
- 20.Magnetic behavior of  $0.80(\text{V}_2\text{O}_5\text{-CuO}) \cdot 0.20\text{As}_2\text{O}_3$ , E.Culea, T.Ristoiu and I.Cosma, 3rd General Conference of the Balkan Physical Union, 2-5 September 1997, p.223.
- 21.Magnetic behavior of uranium ions immobilized in borate glass matrices, E.Culea, Actinides '97, 21-26 September 1997, Baden-Baden, Germany, p.T7-P5.
- 22.Spectroscopic and magnetic behaviour of some glasses containing Gd ions, E.Culea, EUCMOS '98, European Conference on Spectroscopy, Prague, Cech Republic, 25-30 August 1998, pg.231.
- 23.Magnetic behaviour of uranium ions immobilized in borate glass matrices, E.Culea, MATEHN '98, Materials and manufacturing technologies, Cluj-Napoca, 10-13 september 1998, pg.133.

- 24.Magnetic behavior of glasses with Dy<sup>3+</sup> and Ho<sup>3+</sup> ions, E.Culea, M.Flora and I.Pop, Balkan Physics Conference, 22-25 octombrie, 1998, Cluj-Napoca.
- 25.Magnetic behavior of 0.80(V<sub>2</sub>O<sub>5</sub>-CuO)-0.20As<sub>2</sub>O<sub>3</sub>, E.Culea, T.Ristoiu and I.Cosma, Balkan Physics Conference, 22-25 octombrie 1998, Cluj-Napoca.
- 26.Study of structural and magnetic behaviour of the 0.10Gd<sub>2</sub>O<sub>3</sub>.0.90(0.95SiO<sub>2</sub>.0.05Na<sub>2</sub>O) glass-ceramic, I.Coroiu, E.Culea, Al.Darabont, N.Jumate and Gh.Borodi, MATEHN 2002,International conference on materials and manufacturing technologies, Cluj-Napoca, 11-13 Septembrie, 2002, pg.121.
- 27.Structure and magnetic behaviour of the sol-gel derived iron aluminosilicate glass-ceramics, I.Coroiu, E.Culea and Al.Darabont, Conferinta nationala de fizica, Targu-Mures, 27-29 September 2002, pg.68.
- 28.Gas chromatography-mass spectrometry applications in smokers, M.Culea, O.Cozar, E.Culea, International Conference on Monitoring Indoor Air Polution, Manchester 21-22 aprilie 2004,lectie invitata, p.132
- 29.Trace Analyses by Gas Chromatography-Mass Spectrometry, M.Culea,O.Cozar,D.Ristoiu, E.Culea, Conferinta de Fizica TIM -03, Timisoara 27-29 Nov. 2003, prezentare orală, p.162.
- 30.Determination of Anaesthetic Fumes in Surgery Halls, S.Nicoara, Monica Culea, A.Nica, E.Culea, O.Cozar, IV Int.Conf. "Air 2004-Technological, Social and Economic Problems of Air Environment, 9-11 July 2004, Sankt Petersburg, Rusia,p. 204
- 31.Structural and magnetic behaviour of some oxide glasses containing cerium ions, E.Culea, I.Bratu, M.Neumann, L.Pop, Conferinta internationala "Procese Izotopice si Moleculare-PIM",22-24 septembrie 2005, Cluj-Napoca, p. 54
- 32.Magnetic and structural behaviour of europium ions in oxide vitreous systems, L. Pop,T. Ristoiu, E. Culea, Conferinta internationala "Procese Izotopice si Moleculare-PIM",22-24 septembrie 2005, Cluj-Napoca, p. 121
- 33.Magnetic behaviour of the sol-gel derivated gadolinium silica glass ceramics, I. Coroiu,E. Culea,Al. Darabont, I. Vida-Simiti, Conferinta internationala "Procese Izotopice si Moleculare-PIM", 22-24 septembrie 2005, Cluj-Napoca, p. 123.
- 34.Structural and magnetic behaviour of some glasses containing cerium ions, E.Culea, M.Neumann, A.Takacs, L.Pop, M.Culea, M.Bosca, R.Marcean, Physics Congrege TIM-05,Timisoara, 25-26 noiembrie 2005, p. 47.

- 35.Magnetic Behaviour of Some Oxide Glasses Doped With Rare Earth Ions, L.Pop, E. Culea, M.Bosca, 6th International Conference Of the Balkan Physical Union, 22-26 August 2006, Istanbul, Turkey, p.733.
- 36.Raman Spectroscopic characterization rare earthions doped bismuth-based glasses, L.Pop, E. Culea, M.Bosca and M.Culea, 6th International Conference Of the Balkan Physical Union, 22-26 August 2006, Istanbul, Turkey, p.891.
- 37.Segmental order and chain dynamics of polymer networks using dipolar correlation effect measured in low field NMR, R.Marcean-Chelcea, R.Fechete, E. Culea, D.E.Demco, B.Blumich6th International Conference Of the Balkan Physical Union, 22-26 August 2006, Istanbul, Turkey, p.642.
- 38.Microscopic and macroscopic properties correlations of polymer networks measured in liw field NMR, R.Marcean-Chelcea, R.Fechete, E. Culea, D.E.Demco, B.Blumich, 6th International Conference Of the Balkan Physical Union, 22-26 August 2006, Istanbul, Turkey, p.656.
- 39.Structural and magnetic properties of some bismuthate glasses containing rare earth ions, E. Culea, L.Pop, M.Bosca, I.Bratu, M.Culea, I.Vida Simiti, Fith International Conf. on Inorganic Materials, Ljubljana, Slovenia, 23-26 September 2006.
- 40.Structural characterization of and Ce<sup>3+</sup>/Ce<sup>4+</sup> redox equilibrium in simulated HLW borosilicate glasses, E. Culea, E.Indrea, I.Bratu, E.Veress, M.Fabian, E.Svad, Fith International Conf. on Inorganic Materials, Ljubljana, Slovenia, 23-26 September 2006.
- 41.Raman spectroscopy of Nd<sup>3+</sup>, Eu<sup>3+</sup> and Ce<sup>3+</sup> ions in lead bismuthate glasses, L.Pop, M.Culea, R.Muntean, I. Bratu, E.Culea, Fourth International Conference on Materials and Manufacturing Technologies, Cluj-Napoca, Romania, 21-23 September 2006.
- 42.Structural and magnetic behaviour of some oxide glasses containing cerium ions, E. Culea, M.Neumann, A.Takacs, L.Pop, M.Culea, M.Bosca, R.Marcean, Fourth International Conference on Materials and Manufacturing Technologies, Cluj-Napoca, Romania, 21-23 September 2006.
- 43.The influence of erbium and cerium ions on the Bi<sub>2</sub>O<sub>3</sub>-PbO glass structure, L.Pop, M.Bosca, R.Muntean, E. Culea, M.Culea, 10<sup>th</sup> Int. Conf. on Non-Crystalline Materials NCM10, September 18-22, 2006, Praha, Czech Republic.
- 44.Spectroscopic and magnetic behaviour of some lead bismuthate glasses contaning cerium ions, L.Pop, M.Bosca, E. Culea, A.Takacs, M.Neumann, M.Culea, 10<sup>th</sup> Int. Conf. on Non-Crystalline Materials NCM10, September 18-22, 2006, Praha, Czech Republic.

- 45.The influence of erbium ions on  $\text{Bi}_2\text{O}_3\text{-PbO}$  glass structure, L.Pop, E. Culea, M.Bosca, R.Muntean, M.Culea, Procedings of the International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, September 3-6, 2006, Cluj-Napoca, Romania, p.224.
- 46.Spectroscopic and magnetic properties of  $x\text{R}_2\text{O}_3(1-x)(0,15\text{Bi}_2\text{O}_3-0,85\text{TeO}_2)$  glasses, L.Pop, R.Fechete, P.Pascuta, S.Rada, M.Culea, M.Bosca, R.Chelcea, E. Culea, Conf. Int. Fizica TIM-06, 24-25 noiembrie 2006, Timisoara, pg.61.
- 47.Structural properties of  $\text{Bi}_2\text{O}_3\text{-PbO}$  glasses doped with rare-earth ions, L.Pop, E. Culea, M.Culea, S.Rada, P.Pascuta, R.Fechete, M.Bosca, R.Chelcea, Conf. Int. Fizica TIM-06, 24-25 noiembrie 2006, Timisoara, pg.68.
- 48.Structural and magnetic properties of the  $\text{Bi}_2\text{O}_3\text{-B}_2\text{O}_3\text{-Eu}_2\text{O}_3$  glasses, P.Pascuta, S.Rada, L.Pop, M.Bosca, E. Culea, Conf. Int. Fizica TIM-06, 24-25 noiembrie 2006, Timisoara, pg.71.
- 49.Statistical distribution of extra-electrons at the nickel atoms and the mean magnetic moment in i-rich solid solutions with non-magnetic elements, I.Cosma, E. Culea, S.Nicoara, R.Fechete, Fourth International Conference in Materials and Manufacturing Technologies, Cluj-Napoca, Romania, 21-23 September 2006.
- 50.Electric and magnetic behaviour of some gadolinium glass-ceramics, I.Coroiu, E. Culea, Al.Darabont, P.Pascuta, E.V.Surducan, Fourth International Conference on Materials and Manufacturing Technologies, Cluj-Napoca, Romania, 21-23 September 2006.
- 51.S.Rada, P.Pascuta, M.Bosca, M.Culea, V.Rus, M.Neumann, E.Culea, Spectroscopic and Quantum Chemical Investigation on the Boro-Bismuthate Glass Structures, The 5<sup>th</sup> Conference ”New Research Trends in Material Science” ARM-5, 2007, vol.II, 385-388.
52. P.Pascuta, S.Rada, L.Pop, M.Bosca, E.Culea, Structural and magnetic properties of the  $\text{Bi}_2\text{O}_3\text{-B}_2\text{O}_3\text{- Eu}_2\text{O}_3$  glasses, Conf. Int. Fizica TIM-06, 24-25 noiembrie 2006, Timisoara, pag.71.
53. L.Pop, R.Fechete, P.Pascuta, S.Rada, M.Culea, M.Bosca, R.Chelcea, E.Culea, Spectroscopic and magnetic properties of  $x\text{R}_2\text{O}_3(1-x)(0.15\text{Bi}_2\text{O}_3-0.85\text{TeO}_2)$  glasses, Conf. Int. Fizica TIM-06, 24-25 noiembrie 2006, Timisoara, pag.61.
54. S.Rada, P.Pascuta, M.Bosca, L.Pop, E.Culea, Structural properties of some boro-bismuthate glasses containing gadolinium ions, 4<sup>th</sup> International Conference On Advanced Vibrational Spectroscopy, June 10-15, 2007, Corfu, Greece, pag. 235.
55. S.Rada, E.Culea, M.Bosca and P.Pascuta, Spectroscopic and quantum chemical investigation of borobismuthate glasses structures, 4<sup>th</sup> International Conference On Advanced Vibrational Spectroscopy, June 10-15, 2007, Corfu, Greece, pag. 291.

55. P.Pascuta, L.Pop, S.Rada, M.Bosca, E.Culea, The local structure of bismuth germanate glasses and glass ceramics doped with europium ions, evidenced by FTIR spectroscopy, 4<sup>th</sup> International Conference On Advanced Vibrational Spectroscopy, June 10-15, 2007, Corfu, Greece, pag. 245.
- 56.P.Pascuta, M.Bosca, S.Rada, E.Culea, Spectroscopic studies of bismuth germanate glasses containing gadolinium ions by FTIR spectroscopy, 8<sup>th</sup> International Workshop on Applied Physics, July 5-7, 2007, Constanta, pag. 80.
- 57.L.Pop, E.Culea, M.Bosca, M.Neumann, R.Muntean, P.Pascuta, S.Rada, X-ray photoelectron spectroscopic studies of lead-bismuthate glasses with rare earth, 8<sup>th</sup> International Workshop on Applied Physics, July 5-7, 2007, Constanta, pag. 99.
- 58.S. Rada, E. Culea, P. Pascuta, M. Bosca, Spectroscopic and quantum chemical investigation of phospho-tellurite glass structures, 8<sup>th</sup> International Workshop on Applied Physics, July 5-7, 2007, Constanta, pag. 225.
- 59.P. Pascuta, S. Rada, L. Pop, M. Bosca, E. Culea, Magnetic behaviour of europium ions in bismuth-bortae glass matrix, Fifth Conference of Isotopic and Molecular Process, PIM-2007, September 20-22, 2007, Cluj, pag.132.
- 60.S. Rada, E. Culea, M. Bosca, P. Pascuta, Effect of the introduction of gadolinium ions in boro-tellurite glasses, Fifth Conference of Isotopic and Molecular Process, PIM-2007, September 20-22, 2007, Cluj, pag.134.
- 61.P. Pascuta, M. Bosca, S. Rada, E. Culea, FTIR spectroscopic study of  $\text{Gd}_2\text{O}_3\text{-Bi}_2\text{O}_3\text{-B}_2\text{O}_3$  glasses, International Conference of Faculty of Sciences, University of Oradea, November 9-10, 2007, pag. 45.
- 62.S. Rada, M. Culea, D. Chicea, E. Culea, The local structure of some gadolinium-lead-borate glasses, International Conference of Faculty of Sciences, University of Oradea, November 9-10, 2007, pag. 125.
- 63.S. Rada, E. Culea, P. Pascuta, M. Rada, M. Culea, Structural and electronic properties of some tellurite glasses, International Conference of Faculty of Sciences, University of Oradea, November 9-10, 2007, pag. 156.
- 64.S. Rada, E. Culea, M. Bosca, P. Pascuta, Spectroscopic and Quantum Chemical Investigation of the Boro-Tellurite Glasses Structures, XXI<sup>st</sup> International Congress on Glass, July 1-6, 2007, Strasbourg, France, pag. 27, ISSN:1432-8488.
- 65.P. Pascuta, S. Rada, M. Bosca, L. Pop, E. Culea, The Local Structure Changes Induced by  $\text{CeO}_2$  Addition in Boro-Bismuthate Glass Matrix, XXI<sup>st</sup> International Congress on Glass, July 1-6, 2007 Strasbourg, France, pag. 26, ISSN: 1432-8488.

- 66.P. Pășcuță, M. Bosca, R. Chelcea, L. Pop, S. Rada, E. Culea, EPR and Magnetic Susceptibility Studies of Gd<sup>3+</sup> Ions Doped Bismuth-Germanate Glass Matrix, EUROMAR, Magnetic Resonance Conference, July 1-6, 2007, Tarragona, Spain ISSN:0003-925X.
- 67.S. Rada, E. Culea, M. Bosca, P. Pășcuță, M. Culea, M. Neumann, Spectroscopic and Quantum Chemical Investigation of the Borobismuthate Glasses Structures, The 5<sup>th</sup> International Conference “New research Trends In Materials Science” ARM-5, 5-7 September, 2007, Sibiu, Romania, vol. II, pag. 365.
- 68.P.Pășcuță, M.Bosca, S.Rada, E.Culea, FTIR Spectroscopic Study of Gd<sub>2</sub>O<sub>3</sub>-Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> Glasses, International Conference of Faculty of Sciences, University of Oradea, November 9-10, 2007, Oradea, Romania.
- 69.S.Rada, M.Culea, D.Chicea, E.Culea, The local structure of some gadolinium-lead-borate glasses, International Conference of Faculty of Sciences, University of Oradea, November 9-10, 2007, Oradea, Romania.
- 70.S.Rada, M.Culea, M.Rada, M.Neumann, E.Culea, Vibrational spectroscopic and DFT studies of vanado-tellurite glasses and glass ceramics, 9<sup>th</sup> International Workshop on Applied Physics, July 7-9, 2008, Constanta, S1-P51.
- 71.S.Rada, P.Pascuta, M.Culea, M. Pica, E.Culea, Vibrational spectroscopic and DFT Studies of Gadolinium Vanado-Tellurite Glasses and Glass Ceramics, XXIX European Congress on Molecular Spectroscopy, 2008, August 31–September 5, Opatija, Croatia, P1-63.
- 72.S.Rada, M.Culea, V.Maties, M. Rada, E.Culea, The Local Structure of Europium Lead-Borate Glasses and Glass Ceramics, XXIX European Congress on Molecular Spectroscopy, 2008, August 31 – September 5, Opatija, Croatia, P1-50.
- 73.S.Rada, M.Barlea, D.Chicea, E.Culea, Structural properties of Gadolinium Borate-Tellurate Glasses and Glass Ceramics Inferred from FTIR spectroscopy and DFT Studies, XXIX European Congress on Molecular Spectroscopy, 2008, August 31–September 5, Opatija, Croatia, P1-51.
- 74.P.Pascuta, S.Rada, G.Borodi, M.Bosca, L.Pop, E.Culea, Influence of europium ions on structure and crystallization properties of bismuth-alumino-borate glasses and glass ceramics, XXIX European Congress on Molecular Spectroscopy, 2008, August 31 – September 5, Opatija, Croatia, P3-17.
- 75.S.Rada, M.Culea, P.Pascuta, E.Culea, Towards modeling Gadolinium Lead-Borate Glasses, Advanced Spectroscopies on Biomedical and Nanostructured Systems, 2008, September 7-10, Cluj-Napoca, P2-34.

- 76.E.Culea, V.Danciu, P.Pascuta, A.Marian, S.Rada, V.Cosoveanu, Structural investigation of some TeO<sub>2</sub>-Eu<sub>2</sub>O<sub>3</sub> glasses obtained by the sol-gel method, Advanced Spectroscopies on Biomedical and Nanostructured Systems, 2008, September 7-10, Cluj-Napoca, P2-14.
- 77.P.Pascuta, M.Bosca, L.Pop, S.Rada, E.Culea, Spectroscopic and magnetic investigations of some bismuth-boro-vanadate glasses doped with gadolinium ions, Advanced Spectroscopies on Biomedical and Nanostructured Systems, 2008, September 7-10, Cluj-Napoca, P2-26.
78. S.Rada, V.Danciu, P.Pascuta, A.Marian, V.Cosoveanu, E.Culea, Spectroscopic and quantum chemical investigation of some tellurate glasses containing gadolinium ions, Advanced Spectroscopies on Biomedical and Nanostructured Systems, 2008, September 7-10, Cluj-Napoca, P2-33.
- 79.S.Rada, P.Pascuta, E.Culea, M.Rada, V.Maties, Gadolinium-environment in phosphate-tellurate glass ceramics investigated by FTIR and EPR spectroscopies, PNCS XII & Crystallization 2009, 6-12 September 2009, Brazil, P.425.
- 80.M.Rada, V.Maties, E. Culea, S.Rada, V.Dan, P.Pascuta, Gadolinium-lead-borate glass ceramics, PNCS XII & Crystallization 2009, 6-12 September 2009, Brazil, P.427.
- 81.S.Rada, V.Maties, M.Rada, E.Culea, Vibrational spectroscopic and computational studies of Gadolinium -Lead-Borate Glasses and Glass Ceramics, 2009, Euromat.
- 82.S.Rada, P.Pascuta, L.Pop. M.Bosca, E.Culea, Structural properties of gadolinium borate-tellurate glass ceramics inferred from FTIR spectroscopy and quantum mechanical calculations, 2009, Euromat.
- 83.S.Rada, E.Culea, M.Rada, V.Maties, M. Bosca, L.Pop, R.Fechete, R.Chelcea, D. Moldovan, Immobilisation of gadolinium in borate-tellurate glasses, Process in isotopes an molecules, 2009, September 24-26, Cluj-Napoca, Romania, T5-21.
- 84.M.Rada, E.Culea, S.Rada, P.Pascuta, M.Culea, D.Viorel, T.Rusu, V.Maties, I.Bratu, The local structure of gadolinium-borate-tellurate vitroceramics investigated by FTIR and EPR spectroscopies, Process in isotopes an molecules, 2009, September 24-26, Cluj-Napoca, Romania, T5-22.
- 85.S.Rada, M.Culea, M.Rada, V.Maties, P.Pascuta, I.Coroiu, L.Pop, E.Culea, Vibrational spectroscopic and DFT studies of gadolinium-lead-germanate glasses, Gaussian 09 Workshop, 2009, July 28-31, Ulm, Germany.
- 86.S.Rada, E.Culea, M.Rada, M.Culea, V.Maties, T.Ristoiu, M.Bosca, Spectroscopic and DFT investigations on structure of the gadolinium-phosphate-tellurate glasses, Gaussian 09 Workshop, 2009, July 28-31, Ulm, Germany.

- 87.S.Rada, E.Culea, V.Dan, M.Culea, M.Rada, T.Rusu, Tellurate-vanadate glasses an alternative of immobilization of the nuclear wastes, 5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, 12-17July 2009, P187.
- 88.M.Rada, E.Culea, S.Rada, V.Maties, P.Pascuta, L.Pop, Structural investigation of molybdenum-lead-borate glasses by X-ray diffraction and FTIR spectroscopy, 5th International Conference on Advanced Vibrational Spectroscopy, Melbourne, 12-17July 2009, P186.
- 89.S.Rada, R.Chelcea, L.Pop, M.Bosca, T.Tistoiu, I.Coroiu, E.Culea, Germanate anomaly in gadolinium-lead-germanate glasses, Colloquium Spectroscopicum Internationale XXXVI, 2009, August 30-September 3, Budapest, Hungary, PW-48.
- 90.E.Culea, V.Danciu, P.Pascuta, S.Rada, I.Bratu, A.Marian, A.Benta, I.Vida Simiti, IR structural characterization and structural model optimization for some tellurate glasses obtained by sol-gel synthesis, Colloquium Spectroscopicum Internationale XXXVI, 2009, August 30-September 3, Budapest, Hungary, PW-49.
- 91.S.Rada, P.Pascuta, M.Culea, M.Rada, V.Maties, E.Culea, Towards understanding of the structural properties of the lead-vanadate-tellurate unconventional glasses, Colloquium Spectroscopicum Internationale XXXVI, 2009, August 30-September 3, Budapest, Hungary, PW-50.
- 92.S. Rada, V. Dan, M. Rada, T. Rusu, M. Bosca, L. Pop, E. Culea, FTIR, UV-VIS spectroscopy and DFT calculations on the structure of the gadolinium-lead-germanate glasses, EUCMOS 2010, 30th European Congress on Molecular Spectroscopy, Florence, Italy, 29august-3september 2010, PS-53, pag. 177.
- 93.R. Chelcea, S. Rada, E. Culea, FTIR, UV-VIS and EPR spectroscopy investigations of the copper-lead-germanate glasses, EUCMOS 2010, 30th European Congress on Molecular Spectroscopy, Florence, Italy, 29august-3september 2010, PS-54, pag. 178.
- 94.S. Rada, R. Chelcea, A. Dehelean, P. Pascuta, T. Ristoiu, I. Coroiu, M. Barlea, E. Culea, FTIR, UV-VIS and EPR investigations of the gadolinium-lead-tellurate unconventional glasses, EUCMOS 2010, 30th European Congress on Molecular Spectroscopy, Florence, Italy, 29august-3september 2010, PS-55, pag. 179.
- 95.A. Dehelean, S. Rada, E. Culea, Redox processes in iron-lead-tellurate glasses, EUCMOS 2010, 30th European Congress on Molecular Spectroscopy, Florence, Italy, 29august-3september 2010, PS-56, pag. 180.

- 96.M. Rada, V. Maties, S. Rada, I.V. Simiti, E. Culea, Novel photochromic properties of the tungsten-lead-borater, EUCMOS 2010, 30th European Congress on Molecular Spectroscopy, Florence, Italy, 29august-3september 2010, PS-57, pag. 181.
- 97.L. Rus, M. Rada, T. Rusu, M. Bosca, V. Micle, S. Rada, E. Culea, Immobilization of gadolinium ions in the lead-tellurate glasses, Advanced Spectroscopies on Biomedical and Nanostructured Systems, Cluj-Napoca, Romania, September 4-7, 2011, PN37.
- 98.M. Zagrai, M. Rada, R. Chelcea, S. Rada, P. Pascuta, V. Dan, E. Culea, Structural Role of Europium Ions in Lead-Borate Glasses Inferred from Spectroscopic and DFT Studies, Advanced Spectroscopies on Biomedical and Nanostructured Systems, Cluj-Napoca, Romania, September 4-7, 2011, PN38.
- 99.R. Chelcea, S. Rada, T. Ristoiu, I. Coroiu, M. Zagrai, E. Culea, Infrared, NMR spectroscopy and DFT investigations on structure of borate-tellurate glasses, Advanced Spectroscopies on Biomedical and Nanostructured Systems, Cluj-Napoca, Romania, September 4-7, 2011, PN39.
- 100.M. Rada, L. Rus, M. Zagrai, S. Rada, M. Culea, M. Neumann, E. Culea, FTIR, UV-VIS and EPR spectroscopy investigations on the structure of tungsten-lead-borate glasses, Advanced Spectroscopies on Biomedical and Nanostructured Systems, Cluj-Napoca, Romania, September 4-7, 2011, PN40.

#### **E.PUBLICATIONS IN VOLUMES OF NATIONAL CONFERENCES - 25**

- 1.Studiul influentei tratamentelor termice asupra structurii unor sticle borate glasses cu ajutorul RES si a spectroscopiei de absorbtie optica, E.Culea, Conf.Nationala "Progrese in fizica" 1981, Timisoara,Romania,p.119.
- 2.RES a ionilor de Cu<sup>2+</sup> in sticle borate, E.Culea, Al.Nicula and M.Culea, Conf.Nationala "Progrese in fizica" 1982,Iasi,Romania,p.314.
- 3.Determinarea raportului V4+/V5+ in unele sticle borate prin RES, E.Culea and Al.Nicula, Conferinta Nationala "Progrese in fizica" 1983, Craiova, Romania, p.314.
- 4.Studiul prin RES a ionilor V4+ in sticla As<sub>2</sub>O<sub>3</sub>, E.Culea and Al.Nicula, A II-a Conferinta Nationala de Tehnologia materialelor cristaline si amorf,1984, Iasi, Romania.
- 5.Study of the DC electrical conduction of 75%V<sub>2</sub>O<sub>5</sub>-25%As<sub>2</sub>O<sub>3</sub> glasses, E.Culea, C.Gheorghiu and Al.Nicula, Conferinta Nationala "Progrese in fizica" 1985,Iasi, Romania, p.420.
- 6.Studiul unor varistori Csi, I.Coroiu, M.Gorea and E.Culea, Conf.nationala "Progrese in fizica", Oradea, Romania, 1989, p.281.

- 7.Analiza conductiei electrice in unele sticle cu V<sub>2</sub>O<sub>5</sub> cu ajutorul calculatorului, E.Culea, Conf.Nationala "Progrese in fizica", Cluj, Romania, 1990, p.127.
- 8.Determination of the concentration of a Bryonia Dioica tincture by Raman spectroscopy, I.Milea, E.Culea, T.Iliescu and Janetta Milea, ROMOPTO Bucuresti, 6-8 Sept.1994, p.231.
- 9.Studiul comportamentului magnetic al sistemului vitros (100-x)%As<sub>2</sub>O<sub>3</sub> x%(CuO.V<sub>2</sub>O<sub>5</sub>), E.Culea, I.Cosma and A.Pop, Conferinta Nationala "Progrese in Fizica" 1994, Sibiu, Romania,p.73.
- 10.Investigarea prin spectroscopie Raman a modificarilor structurale produse de ionii de Gd si Y in unele sticle borate, I.Milea and E.Culea, Conferinta Nationala "Progrese in Fizica" 1994, Sibiu, Romania, p.64.
- 11.Proprietati magnetice ale sticlelor xDy<sub>2</sub>O<sub>3</sub>(1-x)B<sub>2</sub>O<sub>3</sub>, E.Culea, M.Flora, I.Pop and I.Cosma, Conferinta anuala a Universitatii din Oradea, 30 mai-1 iunie, 1996.
- 12.Comportamentul magnetic al sticlelor xGd<sub>2</sub>O<sub>3</sub>(1-x)B<sub>2</sub>O<sub>3</sub>, E.Culea, T.Ristoiu and I.Cosma, Al IV-lea Colocviu National de Fizica si Tehnologia, Materialelor Cristaline si Amorfe, 13-14 iunie 1996, Iasi,p184.
- 13.Studiul proprietatilor structurale si magnetice ale unor sticle cu ioni de europiu, E.Culea, Tania Ristoiu, I.Bratu and Delia Ristoiu, Conferinta "Procese Izotopice si Moleculare-PIM" Cluj-Napoca, 25-27 septembrie 1999.
- 14.Structure and magnetic behaviour of the sol-gel derived iron aluminosilicate glass-ceramics, I.Coroiu, E.Culea and Al.Darabont, Conferinta nationala de fizica, Targu-Mures, 27-29 September.2002, pg.41.
- 15.Magnetic and Structural behaviour of xGd<sub>2</sub>O<sub>3</sub>(1-x)(Bi<sub>2</sub>O<sub>3</sub>PbO) Glasses, E.Culea, I.Coroiu and L.Gog, Conferinta nationala de fizica, Targu-Mures, 27-29 September, 2002, pg.41.
- 16.Structure and properties of some bismuthate vitreous systems containing rare earth ions, E.Culea, I.Bratu, M.Bogdan, L.Giurgiu, I.Vida Simiti,I.Cosma,M.Bosca, 14<sup>th</sup> National Conf.on Physics, Bucharest, 13-17 Sept. 2005, p. 22.
- 17.Applied science versus science for science: the case of physics, I.Cosma,E. Culea, S.Nicoara, T.Ristoiu, A.Cosma, 14<sup>th</sup> National Conf.on Physics, Bucharest, 13-17 Sept. 2005, p. 162.
- 18.Nanostructured phases in bismuthate glasses containing rare earth ions, E.Culea, I.Bratu, M.Bogdan, L.Giurgiu, I.Vida Simiti, M.Culea, L.Pop,M.Bosca, Conf. Universitatii Oradea, 11-12 noiembrie 2005.

19. Structural and magnetic behaviour of some bismuthate glasses containing cerium ions, E.Culea, I.Bratu, M.Bogdan, L.Giurgiu, M.Neumann, L.Pop, M.Bosca, Conf. Universitatii Oradea, 11-12 noiembrie 2005.
20. PAHS determination by gas-chromatography-mass spectrometry, M.Culea, O.Cozar, E.Culea, Conf. Mediul-Cercetare, protectie si gestiune. Impactul factorilor fizici si Bio-geo-chimici asupra dezvoltarii durabile, Cluj-Napoca, 2005, p. 135.
21. Gd ions effect on the crystallization process of some ceramic systems based on silica, I.Coroiu, Gh.Borodi, I.Vida Simiti, Al.Darabont, I.Bratu, N.Jumate, ARM/The 4<sup>th</sup> Nat. Conf. New Trends in Materials Science, Constanta, 25-28 sept. 2005, p. 735.
22. Magnetic Properties of some gadolinium silica glass ceramics, I.Coroiu, E.Culea, I.Vida Simiti, Al.Darabont, ARM/The 4<sup>th</sup> Nat. Conf. New Trends in Materials Science, Constanta, 25-28 sept. 2005, p. 723.
23. Structural characteristics of terbium-lead-bismuthate glasses, L.Pop, E. Culea, R.Muntean, M.Culea, M.Bosca, Romanian Conf. on Advanced Materials, 4-7 September 2006, Bucuresti, Magurele, Romania.
24. M.Rada, V.Mătieş, E.Culea, S Rada, T.Rusu, Valorificarea oxidului de plumb din deşeurile periculoase prin imobilizarea în vitroceramici, Prima Conferinta Nationala de Educatie Tehnologica si Tehnologii Educationale, 2009, vol. II, 398-403.
25. M.Rada, E.Culea, V. Mătieş, S.Rada, V.Dan, Imobilizarea deşeurilor radioactive în sticle oxidice vitroase, Prima Conferinta Nationala de Educatie Tehnologica si Tehnologii Educationale, 2009, vol. II, 404-409.

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