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Universitatea Babeș-Bolyai Competiția Excelenței 2010

Dosar individual

Notă: Toate datele se referă la perioada 2005-2009

Nume, prenume, grad did.	MANIU DANA, CONFERENȚIAR
Facultatea, Catedra	Facultatea de Fizica, Catedra de Spectroscopie Moleculară
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Criteriul I – Output (60%)

total punctaj: 887,03 + 6,67 + 9 + 2,25 = 904,95 pct

- Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate):
8 articole 887,03 pct
In cazul in care nu are Factor de impact ISI : 1 articol 6,67 pct
- Articole științifice publicate în reviste indexate în BDI (din lista CNCSIS) și în reviste românești recunoscute de CNCSIS tip B și B⁺ : 4 articole 9 pct
- Alte articole științifice publicate în reviste cu referenți: 2 articole 2,25 pct

Criteriul II – Prestigiu profesional 30%

total punctaj: 220 + 10 + 540 + 15 + 205,23 + 33,84 + 60 = 1.084,07 pct

- Citări ale articolelor ISI listate la Criteriul I 22 citari 220 pct
- Alte citări ale lucrărilor listate mai sus 1 citare 10 pct
- Citări în perioada 05-09 ale articolelor anterioare anului 2005 54 citari 540 pct
- Studenti naționali atrași 15 pct
 - Îndrumare lucrari de licență (număr lucrări susținute) 3 lucrari licenta
 - Îndrumare lucrări de disertație (număr lucrări susținute) 1 lucrare dizertatie
- Participări la programe/granturi finanțate din sursă națională membru in 6 contracte nationale (2.052.376,72 lei) 205,23 pct
- Coordonări de programe/granturi finanțate din sursă internațională (se menționează și valoarea) coordonator 1 proiect international (tip Leonardo: 33.840 EURO) 33,84 pct
- Membru în comitete de organizare sau științifice ale unor conferințe internaționale membru in 3 comitete de organizare 60 pct

Total punctaj criteriul I si II:

$$0,6 \times 904,95 + 0,3 \times 1084,07 = 542,97 + 325,221 = 868,191 \text{ pct}$$

Data:

16.03.2010

Semnătura:

Certific validitatea datelor prezentate

Sef de catedră, Prof. dr. Simion Astilean

Criteriul I – Output

887,03 + 6,67 + 9 + 2,25 = 904,95

1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate): 887,03 pct*(30 / număr de autori) x Factor de impact ISI x 10*1. NIR surface enhanced Raman spectroscopy and bands assignment by DFT calculations of non-natural β amino acidsT. Iliescu, **D. Maniu**, V. Chis, F. D. Irimie, Cs. Paizs, M. Tosa

Chem Phys, 310, (2005), 189-199.

1,934 x (30/6) x 10 = 96,7

2. Self-assembled multilayers of gold nanoparticles as versatile platforms for molecular sensing by Fourier transform-surface enhanced scattering (FT-SERS) and surface enhanced infrared absorption (SEIRA)

F. Toderas, S. Boca, M. Baia, L. Baia, **D. Maniu**, S. Astilean, S. Simon

J. of Optoelectronics and Adv. Mat., Vol. 9, No. 3, (2007), 625-628.

0,827 x (30/7) x 10 = 35,44

3. Density functional theory investigation of p-aminothiophenol molecules adsorbed on gold nanoparticles

D. Maniu, V. Chis, M. Baia, F. Toderas, S. Astilean

J. of Optoelectronics and Adv. Mat., Vol. 9, No. 3, (2007), 734-737

0,827 x (30/5) x 10 = 49,62

4. Raman structural investigation of manganese doped tellurite glasses

D. Maniu, I. Ardelean, T. Iliescu, S. Astilean, N. Muresan

J. of Optoelectronics and Adv. Mat., vol. 9, no. 3, (2007), 738-741.

0,827 x (30/5) x 10 = 49,62

5. Raman and sers investigations of trihydrate amoxicillin

A. Calborean, **D. Maniu**, V. Chis, T. Iliescu, V. K. Rastogi

J. of Optoelectronics and Adv. Mat., vol. 9, no. 3, (2007), 683-687.

0,827 x (30/5) x 10 = 49,62

6. Tuning the plasmon resonances of gold nanoparticles by controlling their size and shape

Toderas F, Baia M, **Maniu D**, Astilean S.

J. of Optoelectronics and Adv. Mat., vol. 10, no: 9, (2008), 2282-2284.

0,577 x (30/4) x 10 = 43,27

7. The synthesis of biocompatible and SERS-active gold nanoparticles using chitosan

Potara M, **Maniu D**, Astilean S

NANOTECHNOLOGY, vol20, no 31 Article Number: 315602 (2009),

3,446 x (30/3) x 10 = 344,6

8. Multilayer Structures of Self-Assembled Gold Nanoparticles as a Unique SERS and SEIRA Substrate

Baia M., Toderas F., Baia L., **Maniu D.**, Astilean S.

CHEMPHYSICHEM, Vol. 10, no: 7, 1106-1111, (2009)

3,636 x (30/5) x 10 = 218,16

In cazul in care revista nu are Factor de impact ISI :

6,67 pct

Formula de calcul: 20 / număr de autori

1. Raman and surface enhanced Raman spectroscopy on molecules of pharmaceutical and biological interest

Iliescu T, Baia M, **Maniu D**

Romanian Reports in Physics, vol 60, no. 3, (2008), 829-855.

20/3=6,67

3. Articole științifice publicate în reviste indexate în BDI (din lista CNCSIS) și în reviste românești recunoscute de CNCSIS tip B și B⁺ : 9 pct*Formula de calcul: 10 / număr de autori*

1. Vibrational Spectroscopy, Surface-Enhanced Raman Spectroscopy and Theoretical Studies of Sodium salt of 3-amio-3-[(5-benzothiazole-2yl)-propanoic acid

T. Iliescu, **D. Maniu**, V. Chis, M. Tosa, F. Irimie

Studia Univ. Babes-Bolyai, Physica,1, (2005), 3-14.

10/5 = 2

2. Raman structural investigation of manganese doped boro-tellurite glasses

D. Maniu, T. Iliescu, I. Ardelean, S. Astilean, N. Muresan

Studia Univ. Babes-Bolyai, Seria Physica, 4b, (2005), 628-632

10/5 = 2

3. Surface plasmon resonance of gold nanoparticles on glass substrates

F. Toderas, M. Baia, **D. Maniu**, S. Astilean

Studia Univ. Babes-Bolyai, Seria Physica, 4a, (2005), 421-425

10/4 = 2,5

4. A rapid, straightforward method for synthesis of bio-compatible gold nanoparticles

M. Potara, **D. Maniu**, C. Farcau, S. Astilean

Studia Univ. Babes-Bolyai, Seria Physica, 1, (2008), 79-85

10/4 = 2,5

4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed): 2,25 pct*Formula de calcul: 5 / număr de autori*

1. Raman study of potassium borate glasses

D. Maniu, T. Iliescu, I. Ardelean, S. Astilean

Asian Journal of Physics, 15, nr. 2, (2006), 209-214.

5/4 = 1,25

2. Tunable Surface-Enhanced Raman Scattering (SERS) from noble-metal films deposited on polystyrene colloidal crystal and nanoparticle arrays fabricated by nanosphere lithography

Criteriul II – Prestigiu profesional

$$220 + 10 + 540 + 15 + 205,23 + 33,84 + 60 = 1.084,07 \text{ pct}$$

1. Citări ale articolelor ISI listate la Criteriul I

220 pct

Formula de calcul: număr citari x 10

NIR surface enhanced Raman spectroscopy and bands assignment by DFT calculations of non-natural β -amino acids, Iliescu T., Maniu D., Chis V., Irimie F.D., Paizs Cs., Tosa M., 2005, *Chemical Physics*, (1-3) 189-199 **11x10 = 110**

1. Peica, N., Identification and characterisation of the E951 artificial food sweetener by vibrational spectroscopy and theoretical modelling, (2009) *Journal of Raman Spectroscopy*, 40 (12), pp. 2144-2154. Scopus

2. Pande, S., Jana, S., Sinha, A.K., Sarkar, S., Basu, M., Pradhan, M., Pal, A., Chowdhury, J., Pal, T., Dopamine molecules on Au@Ag shell bimetallic nanocolloids: Fourier transform infrared, Raman, and surface-enhanced Raman spectroscopy study aided by density functional theory, (2009) *Journal of Physical Chemistry C*, 113 (17), pp. 6989-7002. SOURCE: Scopus

3. Kundu, J., Dewan, M., Ghoshal, S., Kundu, S.C., Mulberry non-engineered silk gland protein vis-à-vis silk cocoon protein engineered by silkworms as biomaterial matrices, (2008) *Journal of Materials Science: Materials in Medicine*, 19 (7), pp. 2679-2689. SOURCE: Scopus

4. Li, M.-Y., Liao, Q., Zhang, M., Ai, X.-C., Li, F.-Y., Surface-enhanced Raman scattering and DFT computational studies of a benzotriazole derivative, (2008) *Journal of Molecular Structure*, 888 (1-3), pp. 2-6. SOURCE: Scopus

5. Yang, H., Zhu, X., Song, W., Sun, Y., Duan, G., Zhao, X., Zhang, Z., N-acetylalanine monolayers at the silver surface investigated by surface enhanced Raman scattering spectroscopy and X-ray photoelectron spectroscopy: Effect of metallic ions, (2008) *Journal of Physical Chemistry C*, 112 (38), pp. 15022-15027. Scopus

6. Chowdhury, J., Sarkar, J., Tanaka, T., Talapatra, G.B., Concentration-dependent orientational changes of 2-amino-2-thiazoline molecule adsorbed on silver nanocolloidal surface investigated by SERS and DFT, (2008) *Journal of Physical Chemistry C*, 112 (1), pp. 227-239. SOURCE: Scopus

7. Liao, Q., Li, M.-Y., Hao, R., Ai, X.-C., Zhang, J.-P., Wang, Y., Surface-enhanced Raman scattering and DFT computational studies of a cyanuric chloride derivative, (2007) *Vibrational Spectroscopy*, 44 (2), pp. 351-356. SOURCE: Scopus

8. Chowdhury, J., Sarkar, J., De, R., Ghosh, M., Talapatra, G.B., Adsorption of 2-amino-6-methylbenzothiazole on colloidal silver particles: Quantum chemical calculations and surface enhanced Raman scattering study, (2006) *Chemical Physics*, 330 (1-2), pp. 172-183. Cited 6 times., SOURCE: Scopus

9. Schatz, G.C., Young, M.A., Van Duyne, R.P., Electromagnetic mechanism of SERS, (2006) *Topics in Applied Physics*, 103, pp. 19-46. SOURCE: Scopus

10. Sarkar, J., Chowdhury, J., Pal, P., Talapatra, G.B., Ab initio, DFT vibrational calculations and SERRS study of Rhodamine 123 adsorbed on colloidal silver particles, (2006) *Vibrational Spectroscopy*, 41 (1), pp. 90-96. SOURCE: Scopus

11. Sarkar, J., Chowdhury, J., Ghosh, M., De, R., Talapatra, G.B., Experimental and theoretical surface enhanced Raman scattering study of 2-amino-4-methylbenzothiazole adsorbed on colloidal silver particles, (2005) *Journal of Physical Chemistry B*, 109 (47), pp. 22536-22544. SOURCE: Scopus

Multilayer structures of self-assembled gold nanoparticles as a unique SERS and SEIRA substrate, Baia M., Toderas F., Baia L., Maniu D., Astilean S., 2009, *ChemPhysChem*, (7) 1106-1111 **1 x 10 = 10**

1. Conductivity of ionic liquid-derived polymers with internal gold nanoparticle conduits, Lee, S., Cummins, M.D., Willing, G.A., Firestone, M.A., *Journal of Materials Chemistry* 19 (43), pp. 8092-8101, 2009, Scopus

The synthesis of biocompatible and SERS-active gold nanoparticles using chitosan, Potara M., Maniu D., Astilean S. 2009, *Nanotechnology*, (31) **1 x 10 = 10**

1. Self-assembly of gibberellic amide assemblies and their applications in the growth and fabrication of ordered gold nanoparticles, Smoak, E.M., Carlo, A.D., Fowles, C.C., Banerjee, I.A., *Nanotechnology* 21 (2), art. no. 025603, 2010, SOURCE: Scopus

Raman structural investigation of manganese doped tellurite glasses, Maniu D., Ardelean I., Iliescu T., Astilean S., Muresan N., 2007, *Journal of Optoelectronics and Advanced Materials*, (3) 737-740 **2x10 = 20**

1. Structural peculiarities, and electrical and optical properties of $70\text{TeO}_2\cdot 30\text{PbCl}_2$ glasses doped with Pr^{3+} , prepared in Pt or Au crucibles, Kubliha, M., Trnovcová, V., Furár, I., Kadlečiková, M., Pedlíková, J., Greguš, J., *Journal of Non-Crystalline Solids* 355 (37-42), pp. 2035-2039, 2009 SOURCE: Scopus

2. Influence of preparation technique and Pr^{3+} doping on the absorption edge, photoluminescence, and Raman spectra of $70\text{TeO}_2\cdot 30\text{PbCl}_2$ glasses, Trnovcová, V., Furár, I., Kadlečiková, M., Greguš, J., Pedlíková, J.,

Ožvoldová, M., Bošák, O., Journal of Optoelectronics and Advanced Materials 9 (10), pp. 3223-3228, 2007

SOURCE: Scopus

Density functional theory investigation of p-aminothiophenol molecules adsorbed on gold nanoparticles, Maniu D., Chis V., Baia M., Toderas F., Astilean S., 2007, Journal of Optoelectronics and Advanced Materials, (3) 733-736 **5x10 = 50**

1. Surface catalytic coupling reaction of p-mercaptoaniline linking to silver nanostructures responsible for abnormal SERS enhancement: A DFT study, Wu, D.-Y., Liu, X.-M., Huang, Y.-F., Ren, B., Xu, X., Tian, Z.-Q., Journal of Physical Chemistry C 113 (42), pp. 18212-18222, 2009, SOURCE: Scopus

2. In Vitro biosynthesis of gold nanotriangles for Surface-Enhanced Raman spectroscopy, Iosin, M., Toderas, F., Baldeck, P., Astilean, S., Journal of Optoelectronics and Advanced Materials 10 (9), pp. 2285-2288, 2009 SOURCE: Scopus

3. Self-assembly characteristics of gold nanoparticles in the presence of arginine, Barbu-Tudoran, L., Tomoaia, G.H., Horovitz, O., Mocanu, A., Tomoaia-Cotisel, M., Journal of Optoelectronics and Advanced Materials 10 (9), pp. 2293-2297, 2008, Scopus

4. Cysteine mediated assembly of gold nanoparticles, Petean, I., Tomoaia, Gh., Horovitz, O., Mocanu, A., Tomoaia-Cotisel, M., Journal of Optoelectronics and Advanced Materials 10 (9), pp. 2289-2292, 2008. Scopus

5. Nanoparticle metal - Semiconductor charge transfer in ZnO/PATP/Ag assemblies by surface-enhanced Raman spectroscopy, Sun, Z., Wang, C., Yang, J., Zhao, B., Lombardi, J.R., Journal of Physical Chemistry C 112 (15), pp. 6093-6098, 2008, SOURCE: Scopus

Self-assembled multilayers of gold nanoparticles as versatile platforms for molecular sensing by Fourier transform-surface enhanced scattering (FT-SERS) and surface enhanced infrared absorption (SEIRA), Toderas F., Boca S., Baia M., Baia L., Maniu D., Astilean S., Simon S., 2007, Journal of Optoelectronics and Advanced Materials, (3) 625-628 **IF = 0,827** **1x10 = 10**

1. In Vitro biosynthesis of gold nanotriangles for Surface-Enhanced Raman spectroscopy, Iosin, M., Toderas, F., Baldeck, P., Astilean, S., Journal of Optoelectronics and Advanced Materials 10 (9), pp. 2285-2288, 2008. SOURCE: Scopus

Tuning the plasmon resonances of gold nanoparticles by controlling their size and shape, Toderas F, Baia M, Maniu D, Astilean S, Journal of Optoelectronics and Advanced Materials, Vol. 10 Issue: 9, Pages: 2282-2284, 2008 **IF = 0,577** **1x10 = 10**

1. Magnetic Particle-Based Hybrid Platforms for Bioanalytical Sensors, Author(s): Stanciu L, Won YH, Ganesana M, et al., SENSORS, Vol: 9, Issue: 4, Pages: 2976-2999, 2009. Surse: ISI knowledge

2. Alte citări ale lucrărilor listate mai sus **10 pct**

Formula de calcul: număr citari x 10

Raman study of lead vanadate glasses, D. Maniu, T. Iliescu, S. Astilean, Romanian Reports in Physics, vol 56, nr 3, (2004), 419-423. **1x10=10**

1. S. Kaoua, S. Krimi, A. El Jazouli, E. K. Hlil and D. de Waal, Préparation et caractérisation des verres phosphatés à base de vanadium et du titane, Colloque de l'Association Française de Cristallographie, Toulouse 10-13jul 2006,

3. Citări în perioada 2005-2009 ale articolelor anterioare anului 2005 **540 pct**

Formula de calcul: număr citari x 10

Vibrational and rotational relaxation of v(C-Br) mode of 2-bromopropane, T.Iliescu, S.Astilean, I. Bratu, R.Grecu, D. Maniu, J. Chem. Soc. Faraday Trans., 92(2), (1996) 175-178. **5x10 = 50**

1. Muntean, C.M., Bratu, I., FT-Raman study of the (sub)picosecond dynamics in genomic DNA from plant tissues, (2009) Spectroscopy, 23 (5-6), pp. 281-289., SOURCE: Scopus

2. Muntean, C.M., Bratu, I., Nalpantidis, K., Purcaru, M.A.P., Subpicosecond dynamics in calf-thymus DNA, in the presence of Zn²⁺ ions: A Raman spectroscopic study, (2009) Spectroscopy, 23 (3-4), pp. 141-154., SOURCE: Scopus

3. Muntean, C.M., Bratu, I., Raman spectroscopic study on the subpicosecond dynamics in calf-thymus DNA, upon lowering the pH and in the presence of Mn²⁺ ions, (2008) Spectroscopy, 22 (6), pp. 475-489., SOURCE: Scopus

4. Muntean, C.M., Bratu, I., Molecular relaxation processes in calf-thymus DNA, in the presence of Mn²⁺ and Na⁺ ions: A Raman spectroscopic study, (2008) Spectroscopy, 22 (5), pp. 345-359., SOURCE: Scopus

5. Muntean, C.M., Bratu, I., Molecular dynamics in calf-thymus DNA, at neutral and low pH, in the presence of Na⁺, Ca²⁺ and Mg²⁺ ions: A Raman microspectroscopic study, (2007) Spectroscopy, 21 (4), pp. 193-204., SOURCE: Scopus

Raman, Surface-Enhanced Raman Spectroscopy and density functional theory of 2-formilfuran, T. Iliescu, M. Bolboacă, R. Păcurariu, D. Maniu, W. Kiefer, J. Raman Spectroscopy 34, 9, (2003), 705-710. **2x10= 20**

1. Schatz, G.C., Young, M.A., Van Duyne, R.P., Electromagnetic mechanism of SERS, (2006) Topics in Applied Physics, 103, pp. 19-46., SOURCE: Scopus

2. Martínez, O., Vivoni, A., Qiao, Z., Udeochu, U., Hosten, C.M., Energy calculations of 6-mercaptopyrimidine riboside adsorbed on a silver electrode surface using density functional theory, (2006) *Surface Science*, 600 (9), pp. 1787-1792., SOURCE: Scopus

Raman of spectroscopy of oxide glass system (1-x) (yB₂O₃·zLi₂O)·xGd₂O₃, T.Iliescu, S.Simon, D. Maniu, I.Ardelean, J. Mol. Struct., 294, (1993), 201-204. 5x10=50

1. Manara, D., Grandjean, A., Neuville, D.R., Advances in understanding the structure of borosilicate glasses: A raman spectroscopy study, (2009) *American Mineralogist*, 94 (5-6), pp. 777-784., SOURCE: Scopus

2. Lenoir, M., Grandjean, A., Linard, Y., Cochain, B., Neuville, D.R., The influence of Si,B substitution and of the nature of network-modifying cations on the properties and structure of borosilicate glasses and melts, (2008) *Chemical Geology*, 256 (3-4), pp. 315-324., SOURCE: Scopus

3. Griguta, L., Ardelean, I., Structural investigation of Gd₂O₃-B₂O₃-Li₂O glasses by FT-IR and Raman spectroscopies, (2008) *Journal of Optoelectronics and Advanced Materials*, 10 (2), pp. 256-259., SOURCE: Scopus

4. Manara, D., Grandjean, A., Pinet, O., Dussossoy, J.L., Neuville, D.R., Sulfur behavior in silicate glasses and melts: Implications for sulfate incorporation in nuclear waste glasses as a function of alkali cation and V₂O₅ content, (2007) *Journal of Non-Crystalline Solids*, 353 (1), pp. 12-23., Scopus

5. T. Ristoiu, E. Culea, D. Ristoiu, Magnetic behaviour of xNd₂O₃(1-x)[0.95Na₂B₄O₇.0.05PbO] glasses, *Europhys. Lett.*, 52 (6), p. 688 (2000), SOURCE: Scopus

4. Raman study of B₂O₃-PbO-Nd₂O₃ glasses, T.Iliescu, I.Ardelean, V. Simon, D. Maniu, J. Mat. Sci. Lett., 14, (1995), 393-395. 1x10=10

1. Venkatramu, V., Navarro-Urrios, D., Babu, P., Jayasankar, C.K., Lavín, V., Fluorescence line narrowing spectral studies of Eu³⁺-doped lead borate glass, (2005) *Journal of Non-Crystalline Solids*, 351 (10-11), pp. 929-935., SOURCE: Scopus

5. Raman spectroscopic investigation of the structure of xV₂O₅·(1-x)[3B₂O₃·K₂O] glasses, D. Maniu, I.Ardelean, T.Iliescu, Mater. Lett., 25, (1995), 147-149. 5x10=50

1. Manara, D., Grandjean, A., Neuville, D.R., Advances in understanding the structure of borosilicate glasses: A raman spectroscopy study, (2009) *American Mineralogist*, 94 (5-6), pp. 777-784., SOURCE: Scopus

2. Hager, I.Z., Optical properties of lithium barium haloborate glasses, (2009) *Journal of Physics and Chemistry of Solids*, 70 (1), pp. 210-217., SOURCE: Scopus

3. Manara, D., Grandjean, A., Pinet, O., Dussossoy, J.L., Neuville, D.R., Sulfur behavior in silicate glasses and melts: Implications for sulfate incorporation in nuclear waste glasses as a function of alkali cation and V₂O₅ content, (2007) *Journal of Non-Crystalline Solids*, 353 (1), pp. 12-23., SOURCE: Scopus

4. Li, H., Lin, H., Chen, W., Luo, L., IR and Raman investigation on the structure of (100-x)[0.33B₂O₃-0.67ZnO]-xV₂O₅ glasses, (2006) *Journal of Non-Crystalline Solids*, 352 (28-29), pp. 3069-3073., SOURCE: Scopus

5. Krishna Mohan, N., Sahaya Baskaran, G., Veeraiah, N., Dielectric and spectroscopic properties of PbO-Nb₂O₅-P₂O₅:V₂O₅ glass system, (2006) *Physica Status Solidi (A) Applications and Materials*, 203 (8), pp. 2083-2102., SOURCE: Scopus

Raman spectroscopic investigations of the structure of x CuO·(1-x)[3B₂O₃·K₂O] glasses, D. Maniu, I. Ardelean, T. Iliescu, C. Pantea, J. Mat. Sci. Lett., 16, (1997), 19-20. 2x10=20

1. Li, H., Lin, H., Chen, W., Luo, L., IR and Raman investigation on the structure of (100-x)[0.33B₂O₃-0.67ZnO]-xV₂O₅ glasses, (2006) *Journal of Non-Crystalline Solids*, 352 (28-29), pp. 3069-3073., SOURCE: Scopus

2. Signo Tadeu dos Reisa, Walter M. Pontuschkab, Jinbo B. Yanga, Dalva L A. Fariac, Properties and Structural Features of Iron Doped BABAL Glasses, *Materials research*, vol 6 nr. 3, 389-394, 2003.,

Raman spectroscopic investigations of oxide glass system (1-x)[3B₂O₃·K₂O]·xMO, (MO=V₂O₅, CuO), D. Maniu, I.Ardelean, T.Iliescu, S. Cinta, O. Cozar, J. Mol. Struct., 410/411, (1997), 291-294. 5x10=50

1. Naumov, P., Zugik, M., Lee, A., Weng Ng, S., Spiroconjugation over a boron atom: Facile synthesis, structures and vibrational spectra of crystalline 1,3-disubstituted (propen-1,3-diolato)(oxalato)boron molecules [Macedonian Source], (2009) *Macedonian Journal of Chemistry and Chemical Engineering*, 28 (1), pp. 55-77., SOURCE: Scopus

2. Manara, D., Grandjean, A., Neuville, D.R., Advances in understanding the structure of borosilicate glasses: A raman spectroscopy study, (2009) *American Mineralogist*, 94 (5-6), pp. 777-784., SOURCE: Scopus

3. Osipov, A.A., Osipova, L.M., Structure of glasses and melts in the Na₂O-B₂O₃ system from high-temperature Raman spectroscopic data: I. Influence of temperature on the local structure of glasses and melts, (2009) *Glass Physics and Chemistry*, 35 (2), pp. 121-131., SOURCE: Scopus

4. Szu, S., Lu, S.-G., AC impedance studies of V₂O₅ containing glasses, (2007) *Physica B: Condensed Matter*, 391 (2), pp. 231-237., SOURCE: Scopus

5. Manara, D., Grandjean, A., Pinet, O., Dussossoy, J.L., Neuville, D.R., Sulfur behavior in silicate glasses and melts: Implications for sulfate incorporation in nuclear waste glasses as a function of alkali cation and V₂O₅ content, (2007) *Journal of Non-Crystalline Solids*, 353 (1), pp. 12-23., SOURCE: Scopus

Vibrational Studies of B₆ Vitamin, S. Cinta, T. Iliescu, D. Maniu, C. Morari, M. Aluas, O. Cozar and W. Kiefer, Vibrational Spectrosc., section Anal. Chim. Acta, 19, (1999) 329-334. 5x10=50

1. Sheng, C., Zhao, H., Gu, F., Yang, H., Effect of Pb²⁺ on L-glutathione monolayers on a silver surface investigated by surface-enhanced Raman scattering spectroscopy, (2009) *Journal of Raman Spectroscopy*, 40 (9), pp. 1274-1278., SOURCE: Scopus

2. Joshi, G.V., Patel, H.A., Bajaj, H.C., Jasra, R.V., Intercalation and controlled release of vitamin B6 from montmorillonite - Vitamin B6 hybrid, (2009) *Colloid and Polymer Science*, 287 (9), pp. 1071-1076., SOURCE: Scopus

3. Chu, Y., Chen, S., Zheng, J., Li, Z., Elimination of oxidation and decomposition by SnCl₂ in the SERS study of pyridoxine on a roughened Au electrode, (2009) *Journal of Raman Spectroscopy*, 40 (2), pp. 229-233., SOURCE: Scopus

4. Yang, H., Zhu, J., Sheng, C., Sun, X., Ji, A., Ma, X., pH-dependent surface-enhanced Raman scattering studies of N-acetylalanine monolayers self-assembled on a silver surface, (2007) *Journal of Raman Spectroscopy*, 38 (7), pp. 890-895., SOURCE: Scopus

5. Wang, M.L., Zhang, Y.Y., Xie, Q.J., Yao, S.Z., In situ FT-IR spectroelectrochemical study of electrooxidation of pyridoxol on a gold electrode, (2005) *Electrochimica Acta*, 51 (6), pp. 1059-1068., SOURCE: Scopus

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Spectroscopic investigations of some lead phosphate glasses containing manganese ions, I. Bratu, I. Ardelean, A. Barbu, V. Mih, D. Maniu, G. Botezan, J. Mol. Struct., 482-483, (1999), 689-692. 8x10=80

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7. Sayed, S.A., Elbadry, K.M., Abd El Fattah Marzouk, M., Raman and infrared spectra of ternary P2O5-PbO- Bi2O3 glasses, (2006) Egyptian Journal of Chemistry, 49 (4), pp. 475-500., SOURCE: Scopus

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Raman study of B₂O₃-SrO-CuO glasses, D. Maniu, T. Iliescu, I. Ardelean, R. Ciceo-Lucacel, W. Kiefer, Vibr. Spectr. 29, (2002), 241-244 **2x10=20**

1. Osipov, A.A., Osipova, L.M., Structure of glasses and melts in the Na2O-B2O 3 system from high-temperature Raman spectroscopic data: II. Superstructural units in melts, (2009) Glass Physics and Chemistry, 35 (2), pp. 132-140., SOURCE: Scopus

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Raman, Surface-Enhanced Raman Spectroscopy and density functional theory of 2-formilfuran, T. Iliescu, M. Bolboacă, R. Păcurariu, D. Maniu, W. Kiefer, J. Raman Spectroscopy 34, 9, (2003), 705-710. **2x10=20**

1. Schatz, G.C., Young, M.A., Van Duyne, R.P., Electromagnetic mechanism of SERS, (2006) Topics in Applied Physics, 103, pp. 19-46., SOURCE: Scopus

2. Martínez, O., Vivoni, A., Qiao, Z., Udeochu, U., Hosten, C.M., Energy calculations of 6-mercaptopurine riboside adsorbed on a silver electrode surface using density functional theory, (2006) Surface Science, 600 (9), pp. 1787-1792., SOURCE: Scopus

Studies of borate vanadate glasses using Raman and IR spectroscopy, D. Maniu, T. Iliescu, I. Ardelean, I. Bratu, C. Dem, Studia UBB Physica, Special Issue, (2001), 366-372 **1x10=10**

1. M. Srinivasa Reddy, V.L.N. Sridhar Raja and N. Veeraiah, Molybdenum ion as a structural probe in PbO-Sb₂O₃-B₂O₃ glass system by means of dielectric and spectroscopic investigations, Eur. Phys. J. Appl. Phys. 37, 203-211 (2007).

5. Studenți naționali atrași (activități de coordonare științifică și didactică) **15 pct**

- Îndrumare lucrari de licență (număr lucrări susținute) **3 x 3 / 1 = 9**

Formula de calcul: 3 puncte x [(număr lucrări de licență)/număr de conducători științifici]

1. Marc Adriana, Aplicații ale Laserilor in studierea mediului, 2008

2. Alexandru Surducu, Aplicații Laser În Studiul Atmosferiei, Tehnologia LIDAR, 2009

3. Moisi Roxana-Gabriela, Spectroscopia de absorbție UV-VIS cu aplicații în mediul înconjurător, 2009

- Îndrumare lucrări de disertație (număr lucrări susținute) **4x1/1=4**

Formula de calcul: 4 puncte x [(număr de lucrări dizertatie) / număr de conducători științifici]

1. David Bogdan, Compararea prin spectroscopie raman a diferitelor tipuri de aspirina, 2008

10. Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea)

Formula de calcul: valoarea in RON / 10.000 **205,23 pct**

1. CEEEX 71: (2006-2008): 1.021.333 lei **1.021.333/10.000 = 102,13**

Nanostructuri si nanoparticule de metale nobile cu proprietati plasmonice multifunctionale pentru aplicatii relevante in nanofotonica, biodetectie si spectroscopie laser (NANOBIOSPEC), Contract nr. 71 / 28.07.2006

2. CEEEX 54: (2006-2008): 259.000 lei **259.000/10.000 =25,90**

Cercetari privind masurarea deplasarii micrometrice ale structurii unei centrale electrice subterane (CESTRUCT) , Contract 54/2006

3. IDEI 477 /2007: (2007, 2008, 2009): 571.133,72 lei **571.133,72/10.000 = 57,11**

Nanostructuri plasmonice cu aplicatii in biofotonica, Contract nr. 208 / 01.10.2007

4. PNII, Parteneriate 71-122: (2008, 2009): 128.510 lei **128.510/10.000 = 12,85**

Materiale oxidice micro si nanostructurate cu cromatica luminescenta controlata pentru dispozitive de iluminat (MAMINAL), Contract nr. 71-122/2007

5. PNII, INOVARE 177/2008: (2008, 2009): 18.400 lei **18.400/10.000 =1,84**

Instalatie de obtinere a apei ultrapure din surse primare (TEHNOPUR), Contract nr. 177 /19.08.2008

6. Contract CNC SIS tip A cod 341/2005, (2005, 2006) 54 000 lei **54 000/10.000 = 5,4**

Nanostructuri metalo-polimerice si bionanostructuri cu proprietati spectroscopice multifunctionale obtinute prin metode de autoasamblare coloidala, moleculara si nanolitografie neconventionala., Faza 2005: 30 000 lei, Faza 2006: 24 000 lei

11. Coordonări de programe/granturi finanțate din sursă internațională (se menționează și valoarea)

Formula de calcul: 2 x valoarea intrata in UBB in RON / 8.000 **33,84 pct**

1. Program tip Leonardo RO/2006/PL97214/2006/RO, 33.840 EURO = 135.360 lei **2x 135.360/8.000 = 33,84**

The interpretation and valorisation of the results obtained by using the latest medical apparatus

16. Membru în comitete de organizare sau științifice ale unor conferințe internaționale **60 pct**

Formula de calcul: $20 \times \text{nr. comitete}$ $20 \times 3 = 60$

- membru in comitetul de organizare a conferintei internationale:

Advanced Spectroscopies on Biomedical and Nanostructured Systems 2004

Advanced Spectroscopies on Biomedical and Nanostructured Systems 2006

Advanced Spectroscopies on Biomedical and Nanostructured Systems 2008

Data:

Semnătura:

16.03.2010