ANEXA 1

Universitatea "Alexandru Ioan Cuza" din Iași
Facultatea de Geografie și Geologie
Departamentul de Geologie
dr. BUZATU Andrei

FIȘA DE EVALUARE GENERALĂ A STANDARDELOR UNIVERSITĂȚII

I. Activitatea de cercetare (70%)

1. Articole ştiinţifice publicate *in extenso* în reviste cotate *Web of Science* cu factor de impact (60 puncte x factor de impact +25) / număr autori

1. **Buzatu A.**, Damian G., Dill H. G., Buzgar N., Apopei A. I. (2015) – *Mineralogy and geochemistry of sulfosalts from Baia Sprie ore deposit (Romania) – New bismuth minerals occurrence*. Ore Geology Reviews, 65-1, p. 132-147. **45,60p.**
2. Buzgar N., **Buzatu, A.,** Apopei, A. I., & Cotiugă, V. (2014). *In-situ Raman spectroscopy at the Voroneţ Monastery (16th century, Romania): New results for green and blue pigments.* Vibrational Spectroscopy, 72, 142-148 (ISSN 0924-2031). **29,45p.**
3. Apopei A.I., Damian G., Buzgar N., Milovska S., **Buzatu A.** (2014) *New occurences of hessite, petzite and stützite at Coranda-Hondol open pit (Certej gold-silver deposit, Romania).* Carpathian Journal of Earth and Environmental Sciences, 9 (2), 71-78 (ISSN 1842-4090). **13,72p.**
4. Apopei A. I., Buzgar N., Damian G., **Buzatu A.** (2014) - *The Raman study of weathering minerals from Coranda-Hondol open pit (Certej gold-silver deposit) and their photochemical degradation products under laser irradiation* (accepted, in press). The Canadian Mineralogist. **23,26p.**
5. **Buzatu A.,** Buzgar N., Damian G., Vasilache V., Apopei I.A. (2013) *The determination of the Fe content in natural sphalerites by means of Raman spectroscopy.* Vibrational Spectroscopy, 68, 220-224 (ISSN: 0924-2031). **23,56p.**
6. Buzgar N., Apopei A.I., **Buzatu A.** (2013) *Characterization and source of Cucuteni black pigment (Romania): vibrational spectrometry and XRD study*. Journal of Archaeological Sciences, 40 (4), 2128-2135 (ISSN 0305-4403). **51,11p.**

Punctaj I.1: 45.60+29.45+13.72+23.26+23.56+51.11 = **186.7p**

3. Articole ştiinţifice publicate *in extenso* în reviste indexate BDI (15 puncte / număr autori)

1. Buzgar, N., Apopei, A. I., Diaconu, V., & **Buzatu, A.** (2013). The composition and source of the raw material of two stone axes of Late Bronze Age from Neamț County (Romania)-A Raman study. Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, **59** (1), 5-22 (ISSN 1223-5342, categoria B+). **3,75p.**
2. **Buzatu A.,** Damian G., Buzgar N. (2012) *Raman and infrared studies of weathering products from Baia Sprie ore deposit (Romania).* Jour. of Mineral Deposits, **85** (2), pp. 7-10. **5p.**
3. Buzgar N., **Buzatu A.,** Apopei A.I., Aștefanei D., Topoleanu F. (2011). *Raman study of the brownish-yellow pigment from a Roman Basilica (Dobrogea, Romania – 4th – 6th century A.D.).* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, **57** (2), 15-18 (ISSN 1223-5342, categoria B+). **3p.**

4. Apopei A.I., Buzgar N., **Buzatu A.** (2011) *Raman and infrared spectroscopy of kaersutite and certain common amphiboles.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, **57** (2), 35-58 (ISSN 1223-5342, categoria B+). **5p.**
5. **Buzatu A.,** Buzgar N. (2010). *The Raman study of single-chain silicates.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LVI (1), 107-125 (ISSN 1223-5342, categoria B+). **7,5p.**
6. Buzgar N., Bodi G., Aştefanei D., **Buzatu A.** (2010) *The Raman study of white, red and black pigments used in Cucuteni Neolithic painted ceramics.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LVI (1), 5-14 (ISSN 1223-5342, categoria B+). **3,75p.**
7. Buzgar N., Bodi G., **Buzatu A.,** Apopei A.I., Aştefanei D. (2010) *Raman and XRD studies of black pigment from Cucuteni ceramics.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LVI (2), 95-108 (ISSN 1223-5342, categoria B+). **3p.**
8. Buzgar N., **Buzatu A.,** Sanislav I. V. (2009) *The Raman study of certain sulfates.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LV (1), 5-24 (ISSN 1223-5342, categoria B+). **5p.**

Punctaj I.3: 3.75+5+3+5+7.5+3.75+3+5 = **36p.**

10. Contracte de cercetare în mediul de afaceri şi sectorul public

- firme multinaţionale: 100puncte pentru fiecare 100000Euro

Contract nr. C981073 (2012-2015) între Universitatea "Al. I. Cuza" din Iaşi şi Chevron Ltd., valoare 2012-2014 - 152.000 Euro.

Punctaj I.10: 100*1,52 = **152p**

12. Citări şi recenzii ale lucrărilor ştiinţifice

- reviste de specialitate din străinătate: (10 + 20 x factor de impact) / număr autori, pentru fiecare citare

Buzgar N., Apopei A.I., Buzatu A. (2013). *Characterization and source of Cucuteni black pigment (Romania): vibrational spectrometry and XRD study*. Journal of Archaeological Sciences, 40 (4), 2128-2135.

Citată în :

1. Wang, N., He, L., Egel, E., Simon, S., & Rong, B. (2014). Complementary analytical methods in identifying gilding and painting techniques of ancient clay-based polychromic sculptures. *Microchemical Journal*, *114*, 125-140. IF(2013) = 3,583 - (10 + 20*3,583)/3 = **27,22.**

Apopei, A.I., Buzgar, N., Buzatu, A. (2013). *Raman Data Search and Storage (RDSS): A Raman Spectra Library Software Using Peak Positions for Fast and Accurate Identification of Unknown Inorganic Compounds*. (http://rdrs.uaic.ro)

Citată în:

1. Crupi, V., Giunta, A., Kellett, B., Longo, F., Maisano, G., Majolino, D., Scherillo, A., Venuti, V. (2014) Handheld and non-destructive methodologies for the compositional investigation of meteorite fragments. *Analytical Methods, 6 (16), 6301-6309.* IF(2013) = 1,938 - (10 + 20*1,938)/3 = **16,25.**

2. Barone, G., Crupi, V., Longo, F., Majolino, D., Mazzoleni, P., Raneri, S., Venuti, V. (2014) A multi-technique approach for the characterization of decorative stones and non-destructive method for the discrimination of similar rocks. *X-ray Spectrometry, 43 (2), 83-92.* IF(2013) = 1,187 - (10 + 20*1,187)/3 = **11,24.**

Buzgar N., Buzatu A., Apopei A.I., Aştefanei D., Topoleanu F. (2011). *Raman study of the brownish-yellow pigment from a Roman Basilica (Dobrogea, Romania – 4th – 6th century A.D.).* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, **57** (2), 15-18.

Citată în:

1. Pelosi, C., Agresti, G., Andaloro, M., Baraldi, P., Pogliani, P., Santamaria, U., La Russa M.F., Ruffolo S.A., Rovella, N. (2015). Micro-Raman And Micro-Stratigraphic Analysis Of The Painting Materials In The Rock-Hewn Church Of The Forty Martyrs In Şahinefendi, Cappadocia (Turkey). *Archaeometry*. Doi: 10.1111/arcm.12184. IF(2013) = 1,328 - (10 + 20*1,328)/5 = **7,31.**
2. Sepúlveda, M., Gutierrez, S., Campos-Vallette, M., Clavijo, E., Walter, P., Cárcamo, J. (2013). Raman spectroscopy and X-ray fluorescence in molecular analysis of yellow blocks from the archeological site Playa Miller 7 (northern Chile). *Journal of the Chilean Chemical Society*, *58*(3), 1836-1839. IF(2013) = 0,469 - (10 + 20*0,469)/5 = **3,87.**

Apopei A.I., Buzgar N., Buzatu A. (2011) *Raman and infrared spectroscopy of kaersutite and certain common amphiboles.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, **57** (2), 35-58.

Citată în:

1. Pawlikowski, M., Benko, A., & Wróbel, T. P. (2013). Degradation of Glycine and Alanine on Irradiated Quartz. *Origins of Life and Evolution of Biospheres*, 1-9. IF(2013) =1,765 - (10 + 20*1,765)/3 = **15,1.**
2. Zaitsev, A. N., Avdontseva, E. Y., Britvin, S. N., Demény, A., Homonnay, Z., Jeffries, T. E., ... & Vennemann, T. (2013). Oxo-magnesio-hastingsite, NaCa2 (Mg2)(Al2Si6) O22O2, a new anhydrous amphibole from the Deeti volcanic cone, Gregory rift, northern Tanzania. *Mineralogical Magazine*, *77*(6), 2773-2792. IF(2013) = 1,898 - (10 + 20*1,898)/3 = **15,98.**

Buzgar N., Bodi G., Aştefanei D., Buzatu A. (2010) *The Raman study of white, red and black pigments used in Cucuteni Neolithic painted ceramics.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LVI (1), 5-14.

Citată în:

1. Colomban, P. (2013). Rocks as blue, green and black pigments/dyes of glazed pottery and enamelled glass artefacts–A review. *European Journal of Mineralogy*, *25*(5), 863-879. IF(2013) =1,506 - (10 + 20*1,506)/4 = **10,03.**
2. Boldea, D. A., & Praisler, M. (2013). Petrographic characterization of painted eneolithic ceramics. *European Journal of Science and Theology*, *9*(2), 243-248. IF(2013) = 0,0 - (10 + 20*0,0)/4 = **2,5.**
3. Boldea, D. A., Praisler, M., Quaranta, M., & Minguzzi, V. (2013). Multi-technique characterisation of painted eneolithic ceramics originating from Cucuteni (Romania). *European Journal of Science and Theology*, *9*(4), 253-262. IF(2013) = 0,0 - (10 + 20*0,0)/4 =**2,5.**

Buzgar N., Bodi G., Buzatu A., Apopei A.I., Aştefanei D. (2010) *Raman and XRD studies of black pigment from Cucuteni ceramics.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LVI (2), 95-108.

Citată în:

1. Matau, F., Nica, V., Postolache, P., Ursachi, I., Cotiuga, V., & Stancu, A. (2013). Physical study of the Cucuteni pottery technology. *Journal of Archaeological Science*, *40 (2), 914-925.* IF(2013) = 2.139 - (10 + 20*2.139)/5 = **10.55.**
2. Boldea, D. A., Praisler, M., Quaranta, M., & Minguzzi, V. (2013). Multi-technique characterisation of painted eneolithic ceramics originating from Cucuteni (Romania). *European Journal of Science and Theology*, *9*(4), 253-262. IF(2013) = 0,0 - (10 + 20*0,0)/4 =**2,5.**

Buzatu A., Buzgar N. (2010). *The Raman study of single-chain silicates.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LVI (1), 107-125.

Citată în:

1. De Ferri, L., Lottici, P. P., & Vezzalini, G. (2014). Characterization of alteration phases on Potash–Lime–Silica glass. *Corrosion Science*, *80*, 434-441. IF(2013) = 3,686 - (10 + 20*3,686)/2 = **41,86.**

Buzgar N., Buzatu A., Sanislav I. V. (2009) *The Raman study of certain sulfates.* Analele Ştiinţifice ale Universităţii "Alexandru Ioan Cuza" din Iaşi, seria Geologie, LV (1), 5-24.

Citată în:

1. Prieto-Taboada, N., Larrañaga, A., Gómez-Laserna, O., Martínez-Arkarazo, I. (2015) – The relevance of the combination of XRD and Raman spectroscopy for the characterization of the $CaSO_4$-H_2O system compounds. *Microchemical Journal*, *122*, 102-109. IF(2013) = 3,583 - (10 + 20*3,583)/3 = **27,22.**
2. Matroodi, F., & Tavassoli, S. H. (2014). Experimental investigation on concurrent LIBS-Raman spectroscopy. *Applied Optics, 54(3),* 400-407. IF(2013) = 1,649 - (10 + 20*1,649)/3 = **14,32.**
3. Matroodi, F., & Tavassoli, S. H. (2014). Simultaneous Raman and laser-induced breakdown spectroscopy by a single setup. *Applied Physics B*, *117 (4)*, 1081-1089. IF(2013) = 1,634 - (10 + 20*1,634)/3 = **14,22.**
4. Prieto-Taboada , N., Gómez-Laserna, O., Martínez-Arkarazo,I., Olazabal, M. A., and Madariaga, J.M. (2014). The Raman spectra of the different phases in the CaSO4-H2O system. *Analytical Chemistry*, 86(20)**,** 10131-10137. IF(2013) = 5,825 - (10 + 20*5,825)/3 = **42,16.**
5. Culka, A., Košek, F., Drahota, P., Jehlička, J. (2014) Use of miniaturized Raman spectrometer for detection of sulfates of different hydration states - significance for Mars studies, *Icarus, 243, 440-453.* IF(2013) = 2,84 - (10 + 20*2,84)/3 = **22,26.**
6. De Ferri, L., Lottici, P. P., & Vezzalini, G. (2014). Characterization of alteration phases on Potash–Lime–Silica glass. *Corrosion Science*, *80*, 434-441. IF(2013) = 3,686 - (10 + 20*3,686)/3 = **27,90.**
7. Serrano, P., Wagner, D., Böttger, U., de Vera, J. P., Lasch, P., & Hermelink, A. (2014). Single-cell analysis of the methanogenic archaeon *Methanosarcina soligelidi* from Siberian permafrost by means of confocal Raman microspectrocopy for astrobiological research. *Planetary and Space Science*, *91*. IF(2013) = 1,63 - (10 + 20*1,63)/3 = **14,2.**
8. Hooijschuur, J. H., Iping Petterson, I. E., Davies, G. R., Gooijer, C., & Ariese, F. (2013). Time resolved Raman spectroscopy for depth analysis of multi-layered mineral samples. *Journal of Raman Spectroscopy*, *44*(11), 1540-1547. IF(2013) = 2,519 - (10 + 20*2,519)/3 = **20,12.**

9. Bissengaliyeva, M. R., Gogol, D. B., Taimassova, S. T., Bekturganov, N. S., & Bort, A. T. (2013). The heat capacity and thermodynamic functions of celestine $SrSO_4$. *Thermochimica Acta*, *565*, 227-233. IF(2013) = 2,105 - (10 + 20*2,105)/3 = **17,36.**

10. Yue, Y., Bai, Y., Basheer, P. M., Boland, J. J., & Wang, J. J. (2013). Monitoring the cementitious materials subjected to sulfate attack with optical fiber excitation Raman spectroscopy. *Optical Engineering*, *52*(10), 104107-104107. IF(2013) = 0,958 - (10 + 20*0,958)/3 = **9,72.**

11. Kozhbakhteev, E. M., Skorikov, V. M., Milenov, T. I., Rafailov, P. M., & Avdeev, G. V. (2013). Synthesis and some aspects of the formation mechanism of carbon structures under hydrothermal conditions. *Russian Journal of Inorganic Chemistry*, *58*(12), 1542-1546. IF(2013) = 0,545 - (10 + 20*0,545)/3 = **6,96.**

12. Broggi, A., Petrucci, E., Bracciale, M.P., Santarelli, M.L. (2012) FT-Raman spectroscopy for quantitative analysis of salt efflorescences. *Journal of Raman Spectroscopy*, *43*(11), 1560-1566. IF(2012) = 2,679 - (10 + 20*2,679)/3 = **21,19.**

Buzgar, N., Buzatu, A., Apopei, A.I., Cotiuga, V., Topoleanu, F. (2010). Mineral pigments of greco-roman and byzantine ages from Dobrogea (*abstract*). An. St. Univ. „Al. I. Cuza" Iasi, Geologie, Sp. Iss., GEO IASI – 2010, 13.

Citată în:

1. Pelosi, C., Agresti, G., Andaloro, M., Baraldi, P., Pogliani, P., Santamaria, U., La Russa M.F., Ruffolo S.A., Rovella, N. (2015). Micro-Raman And Micro-Stratigraphic Analysis Of The Painting Materials In The Rock-Hewn Church Of The Forty Martyrs In Sahinefendi, Cappadocia (Turkey). *Archaeometry*. Doi: 10.1111/arcm.12184. IF(2013) = 1,328 - (10 + 20*1,328)/5 = **7,31.**

Buzgar N., Apopei A.I., Buzatu A., (2009) *Romanian Database of Raman Spectroscopy. (http://rdrs.uaic.ro)*

Citată în:

1. Serrano, P., Wagner, D., Böttger, U., De Vera, J.-P., Lasch, P., Hermelink, A. (2014) Single-cell analysis of the methanogenic archaeon Methanosarcina soligelidi from Siberian permafrost by means of confocal Raman microspectrocopy for astrobiological research. *Planetary and Space Science, 98, 191-197.* IF(2013) = 1,63 - (10 + 20*1,63)/3 = **14,2.**

2. Matroodi, F., & Tavassoli, S. H. (2014). Experimental investigation on concurrent LIBS-Raman spectroscopy. *Applied Optics, 53, 400-407.* IF(2013) = 1,649 - (10 + 20*1,649)/3 = **14,32.**

3. Matroodi, F., & Tavassoli, S. H. (2014). Simultaneous Raman and laser-induced breakdown spectroscopy by a single setup. *Applied Physics B*, 1-9. DOI 10.1007/s00340-014-5929-4. IF(2013) = 1,634 - (10 + 20*1,634)/3 = **14,22.**

4. Gardner, P., Bertino, M.F., Weimer, R., Hazelrigg, E. (2013) Analysis of lipsticks using Raman spectroscopy. *Forensic Science International, 232 (1-3),67-72.* IF(2013) = 2,115 - (10 + 20*2,115)/3 = **17,43.**

5. El Bakkali, A., Lamhasni, T., Haddad, M., Ait Lyazidi, S., Sanchez-Cortes, S., Del Puerto Nevado, E. (2013) Non-invasive micro Raman, SERS and visible reflectance analyses of coloring materials in ancient Moroccan Islamic manuscripts. *Journal of Raman Spectroscopy, 44 (1), 114-120.* IF(2013) = 2,519 - (10 + 20*2,519)/3 = **20,12.**

Punctaj I.12: 27,22 + 16,25 + 11,24 + 7,31 + 3,87 + 15,1 + 15,98 + 10,03 + 2,5 + 2,5 + 10.55 + 2,5 + 41,86 + 27,22 + 14,32 + 14,22 + 42,16 + 22,26 + 27,90 + 14,2 + 20,12 + 17,36 + 9,72 + 6,96 + 21,19 + 7,31 + 14,2 + 14,32 + 14,22 + 17,43 + 20,12 = **492,14 p**.

15. Editor/Membru în *Editorial Board & Advisory Board*

- reviste cotate Web of Science

Carpathian Journal of Earth and Environmental Sciences (ISSN 1842-4090) - membru Scientific Board - 20 puncte

Punctaj I.15: **20p.**

Punctaj activitate științifică: 186,7 + 36 + 152 + 492,14 + 20 = **886,84 puncte**

II. Activitatea didactică (30%)

3. Materiale suport curs, seminar, lucrări practice și programe analitice detaliate: 10 puncte pentru fiecare activitate

Materiale suport cursuri: 10 p.

- Petrologie magmatică

Materiale suport lucrări practice: 40 p.

- Mineralogie 1
- Mineralogie 2
- Petrologie magmatică
- Geoinformatică

Punctaj II.3: 50,00p.

4. Organizare de aplicații și practică de specialitate: 5 puncte pentru fiecare activitate

Organizare practică de specialitate 2012-2014 (3 practici). 15p.

Punctaj II.4: 15,00p.

Punctaj activitate didactică: 50 + 15 = **65 puncte**

PUNCTAJ TOTAL =886,84*0,7 + 65*0,3 = **640,288 puncte**

05.06.2015 **dr. Andrei BUZATU**