



ROMÂNIA  
UNIVERSITATEA BABEȘ-BOLYAI CLUJ-NAPOCA

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RECTORATUL

## Universitatea Babeș-Bolyai Competiția Excelenței 2010

### Dosar individual

**Notă: Toate datele se referă la perioada 2005-2009**

Nume, prenume, grad did.	PÎNZARU SIMONA, CONF. DR.
Facultatea, Catedra	Fizica, Spectroscopie Moleculara
Domeniul științific	
Adresa paginii web personale	<a href="http://www.ad-astra.ro/whoswho/view_profile.php?user_id=97">http://www.ad-astra.ro/whoswho/view_profile.php?user_id=97</a>
Adresa e-mail	simona.cinta@phys.ubbcluj.ro

**Criteriul I – Output      60% (aplicat la total punctaj Criteriul I – Output)**  
**60% x 3579,0333 = 2147,4199**

**1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate)**

**TOTAL: 2717,625**

Se acorda 30 puncte pentru fiecare articol si se tine cont de numărul de autori.  
Formula de calcul:  $(30 / \text{număr de autori}) \times \text{Factor de impact ISI} \times 10$

1. Adsorption of 6-Mercaptopurine and 6-Mercaptopurine-Riboside on Silver Colloid: A pH Dependent Surface Enhanced Raman Spectroscopy and Density Functional Theory Study. Part I. 6-Mercaptopurine  
A. V. Szeghalmi, L. Leopold, **S. Pînzaru**, V. Chis, I. Silaghi-Dumitrescu, M. Schmitt, J. Popp, W. Kiefer J. *Mol. Str.* **735-736 (2005) 103-113.**

IF 1,44/8=0,18

Punctaj (30/8) x 1,44 x 10 = 0,18 x 300 = 54

2. Adsorption of 6-Mercaptopurine-Riboside on Silver Colloid: A pH Dependent Surface Enhanced Raman Spectroscopy and Density Functional Theory Study. II. 6-Mercaptopurine -Ribose  
A. V. Szeghalmi, L. Leopold, **S. Pînzaru**, V. Chis, I. Silaghi-Dumitrescu, M. Schmitt, J. Popp, W. Kiefer  
*Biopolymers*, 78, 298-310, 2005.

IF 2,545/8=0,31

Punctaj: 0,31 x 300=93

3. Vibrational Characterization of thiamine. The pH influence monitored by Raman and SERS spectroscopy, Nicolae Leopold, **Simona Cîntă-Pînzaru**, Monica Baia, Elisabeta Antonescu, Onuc Cozar, Wolfgang Kiefer, Jürgen Popp, *Vibr. Spectrosc.* (2005).39, 2, 169-176

IF 1,758/7=0,25

Punctaj : 0,25x300= 75

4. "Vibrational characterization of E102 food additive by Raman and surface-enhanced Raman spectroscopy and theoretical studies"  
N. Peica, I. Pavel, S. Cîntă Pînzaru, V. K. Rastogi and W. Kiefer,  
*J. Raman Spectrosc.* 2005; **36**: 657-666.

IF 1,884/5=0,3768

Punctaj : 0,3768x300= 113,04

5. "Raman, surface enhanced Raman spectroscopy and DFT calculations- a powerful approach for the identification and characterization of 5-fluorouracil anticarcinogenic drug species"

I. Pavel, S. Cota, **S. Cîntă Pînzaru**, W. Kiefer  
J. Phys. Chem. A, 2005; *109*(44) pp 9945 – 9952.

IF 2,898/4=0,724

Punctaj : 0,724x300= 217,2

6. FT-Raman and NIR-SERS characterization of the chloroquine and mefloquine antimalarial drugs and their interaction with hematin

**S. Cîntă Pînzaru**, N. Peica, B. Küstner, S. Schlücker, M. Schmitt, T. Frosch, J. H. Faber, G. Bringmann and J. Popp,  
J. Raman Spectrosc., 2006; **37**: 326–334.

IF 2.133/9= 0,237

Punctaj: 0,237x300= **71,1**

7. "Hydroxyllestadite From Cioclovina Cave (Romania): Microanalytical, Structural, And Vibrational Spectroscopy Data"

Bogdan P. Onac, Herta Effenberger, Karl Ettinger and **Simona Cîntă Pînzaru**  
American Mineralogist, 91, 1927-1931, 2006.

If. 1.977:4=0,49425

Punctaj: 10 x 0,49425 x30= **148,275**

8. SERS substrate-dependent interaction of the anticarcinogenic drug, 5-fluorouracil with silver,

I. Pavel, S. Cota, **S. Cîntă-Pînzaru**, Wolfgang Kiefer  
Particulate Science and Technology, 24, 3, 301-309. 2006.

0.172/4=0,043

Punctaj: **12,9**

**9. "Characterization of birch tree leaves, buds and bark dry extracts with antitumor activity"**

C. A. Dehelean, **S. Cîntă Pînzaru**, C. I. Peev, C. Soica, D. S. Antal  
J Optoelectr. Adv. Mat. 9, 3, 2007, 783-787.

If 0,827 /5=0,165

Punctaj : 0,165x300= **49,5**

**10. S. Cîntă Pînzaru**, N. Peica, U. Schmidt, W. Kiefer

New substrate sample handling and micro-Raman sensing methods for biomolecular analysis  
J Optoelectr. Adv. Mat. 9, 3, 2007, 764- 768.

If 0,827 / 4=0,207

Punctaj : 0,207x300= **62,1**

11. S. Cavalu, **S. Cîntă Pînzaru**, N. Peica, G. Damian, W. Kiefer

Adsorption behavior of hyaluronidase onto silver nanoparticles and PMMA bone substitute  
J Optoelectr. Adv. Mat. 9, 3, 2007, 689-693.

If 0,827 /5= 0,165

Punctaj : 0,165x300= **49,5**

12. I. Kostova, N. Trendafilova, **S. Cîntă Pînzaru**, W. Kiefer, G. Momekov,

Spectroscopic evidence of La(III) complex of coumarin-3-carboxylic acid with cytotoxic activity,  
J Optoelectr. Adv. Mat. 9, 3, 2007, 532-539.

If 0,827 / 5=0,165

Punctaj : 0,165x300= **49,5**

13. New Metal Complexes of Monoanionic (3*H*-2-Thioxo-1,3,4-

Thiadiazol-5-Il)-Thioacetic Acid. X-Ray Structure Of [Na(C<sub>2</sub>N<sub>2</sub>HS<sub>3</sub>CH<sub>2</sub>COO)(H<sub>2</sub>O)<sub>4</sub>]<sub>2</sub>□<sub>2</sub>H<sub>2</sub>O

Monica M. Venter, Vasile N. Bercean, Maria Ilici and **Simona Cîntă Pînzaru**  
Rev. Roum. Chim, **2007**, *52*(1–2), 75–79.

IF. 0.262/4=0.0655

Punctaj : 0,0655x300= **19,65**

14. **S. Cîntă Pînzaru**, L. M. Andronie, I. Domsa, O. Cozar, S. Astilean

Bridging biomolecules with nanoparticles: surface-enhanced Raman scattering from colon carcinoma and normal tissue

*J. Raman Spectrosc.* 2008; **39**: 331–334

**IF 2008: 3.526/ 5=0.705**

Punctaj : 0,705x300= 211,5

15. Raman study of natural berlinite from a geological phosphate deposit

**Simona Cîntă Pînzaru**, B. P. Onac,  
Vib. Spec., 49 (2) pp. 97-100, 2009.

IF. 1.81/2=0.94

Punctaj : 0,94x300= 271,5

16. Theoretical and vibrational spectral investigation of sodium salt of acenocoumarol

I. Hubert Joe, Irena Kostova, C. Ravikumar, M. Amalanathan, and **Simona Cîntă Pînzaru**,

17. Book Review: *Raman and Sers Investigations of Pharmaceuticals*, Authors: *Monica Baia, Simion Astilean, Traian Iliescu* (www.interscience.wiley.com)

**Simona Cîntă Pinzaru**

J. Raman Spectrosc., 40, 6 (2009) 709.

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## 2. Articole științifice publicate în ISI proceedings

Se acorda 30 puncte pentru fiecare articol si se tine cont de numărul de autori.

Formula de calcul:  $(30 / \text{număr de autori}) \times \text{Factor de impact ISI} \times 10$

**TOTAL 510,994**

In vivo toxicological evaluation and FT-Raman spectroscopy correlations on a photochemical melanoma model

Cristina Adriana Dehelean, **Simona Cîntă-Pinzaru**, Daniela Ionescu, Codruta Soica and Camelia Peev, Toxicology Lett 189 S1 (2009) S57-S273, M07. doi:10.1016/j.toxlet.2009.06.297

SERS technique and its applications for toxicological evaluations in experimental breast cancer  
Sorina Alexandra Ciurlea, Cristina Dehelean, Daniela Ionescu, Anca Muresan, **Simona Cîntă-Pinzaru**, Felicia Loghin

Toxicology Letters, Volume 189, Supplement 1, 13 September 2009, Page S132

In vitro studies on mesenchymal stem cells of a dry birch tree bark extract”

Cristina A. Dehelean, C. Tatu, **S. Cîntă-Pinzaru**, C. Peev, Soica Codruta, Tanasie Gabriela, S. Anghel, Abstracts/Toxicology Letters 164S (2006) S228; Proceedings of the EUROTOX 2006, Dubrovnic, Croatia, 2006.

<http://www.eurotox.com/2006abstracts/TOXLET%20Abstracts%20file.pdf>

### In cazul in care nu are Factor de impact ISI

Se acorda 20 puncte pentru fiecare articol si se tine cont de numărul de autori.

Formula de calcul:  $20 / \text{număr de autori}$

**Total 315,4985**

1. Surface Enhanced Raman Scattering Employed in Antimalarial Mechanism of Chloroquine Drug upon Hematin”

**S. Cîntă Pinzaru**, N. Peica, B. Küstner, S. Schlücker, M. Schmitt, T. Frosch, J. Popp, W. Kiefer  
Revista Medico-Chirurgicala a Soc. de Medici si Naturalisti din Iasi, Vol 109, ISSN 0048-7848, suppl. Nr. 1,; 8-th Romanian Biophysics Conference with international participation “Advance Biomaterials and Biophysical Technics”, Abstracts, Mai 26-28, (2005) Iasi, Romania, p. 180-181.

2. Monitoring the Ginseng Content of Chinese Ginseng using FT-IR and FT-Raman Spectroscopy”

Simona Cavalu, **Simona Cîntă Pinzaru**

Revista Medico-Chirurgicala a Soc. de Medici si Naturalisti din Iasi, Vol 109, ISSN 0048-7848, suppl. Nr. 1,8-th Romanian Biophysics Conference with international participation “Advance Biomaterials and Biophysical Technics”, Abstracts, Mai 26-28, (2005) Iasi, Romania, p. 179-180

3. Raman and SERS spectroscopy Monitoring the Interaction Mechanism of Quinoline Derived Antimalarial Drugs with Hematin”

**S. Cîntă Pinzaru**, N. Peica, B. Küstner, S. Schlücker, M. Schmitt, T. Frosch, J. Popp, W. Kiefer,

Fourth Conference „PIM”, Isotopic and Molecular Preocesses, Cluj-Napoca, Sept. 22-24, 2005, Abstracts, p. 60.

Punctaj: 20/8=2,5

4. Mercapto-1-3-4-Thiadiazole-2yl Carboxylic Derivatives Ddsorbed on Silver Nanoparticles”

M. M. Venter, S. C. Pînzaru, V. Chis, V. N. Bercean, I. Haiduc, A. Patraşcu,

Fourth Conference „PIM”, Isotopic and Molecular Preocesses, Cluj-Napoca, Sept. 22-24, 2005, Abstracts, p. 105.

Punctaj 20/6 =3,333

5. Raman and SERS investigation of new synthesized nicotinic acid metallic complexes”

T. Jurca, S. Cavalu, S. Cîntă Pînzaru,

Fourth Conference „PIM”, Isotopic and Molecular Preocesses, Cluj-Napoca, Sept. 22-24, 2005, Abstracts, p.162.

Punctaj: 20/3= 6,666

6. Vibrational Spectroscopic Investigations on Antihypertensive drugs: Captopril and Propanolol”

S. Cavalu, S. Pînzaru, L. Vicas

Fourth Conference „PIM”, Isotopic and Molecular Preocesses, Cluj-Napoca, Sept. 22-24, 2005, Abstracts, p.182.

Punctaj 20/3 =6,6666

7. Raman and SERS spectroscopy in antimalaria research monitoring the interaction mechanism of quinoline based drugs with hematin”

Simona Cîntă Pînzaru

Proceedings ICOPVS, International Conference on Perspectives in Vibrational Spectroscopy, Meerut, India, 25-28 feb. 2006; Ed. R.K. Soni, et al, Anita Publ. New Delhi 110017, India, p. 4.

Punctaj: 20/1=20

8. Structural information, unfolding and aggregation in globular proteins, by Raman, SERS, FT-IR and complementary EPR spectroscopy,

S. Cavalu, S. Cîntă Pînzaru, G. Damian,

Proceedings ICOPVS 2006, International Conference on Perspectives in Vibrational Spectroscopy, Meerut, India, 25-28 feb. 2006; Ed. R.K. Soni, et al, Anita Publ. New Delhi 110017, India, p.3.

Punctaj 20/3 =6,6666

9. Aplicatii ale spectroscopiei de rezonanta magnetica (RMN, RES) si vibrationale (FT-micro-Raman, FT-IR) în monitorizarea micro- si nano-sistemelor de interes biomedical, tehnologic si ecologic”

Mihaela Aluas, Mihai Vasilescu, Simona Cîntă Pînzaru, Simion Simon,

Proceedings, Al 5-lea Seminar National “NANO”, Bucuresti, 2 martie 2006.

Punctaj 20/4 =5

10. Standardizarea unor extracte din betula pendula roth prin stabilirea proporției de compuși principali cu acțiune terapeuică”, Cristina Adriana Dehelean, Simona Cîntă Pînzaru, Camelia Ioana Peev, Diana Simona Antal

Proceedings, Al 5-lea Seminar National “NANO”, Bucuresti, 2 martie 2006

Punctaj 20/4 =5

11. Tunable surface plasmon resonance of the core-shell nanoparticles suitable for NIR-SERS”

S. Cîntă Pînzaru, N. Peica, N. Leolpold, S. Astilean, W. Kiefer,

Proceedings of the 6<sup>th</sup> Balcan PhysicalUnion (BPU6), Istanbul, Turkey, 2006.

Punctaj 20/5 =4

12. ATR/FT-IR and micro-Raman spectroscopy of the colon carcinoma tissues”

S. Cîntă Pînzaru, L. M. Andronie, N. Peica O. Cozar, W. Kiefer

Proceedings of the XX International Conference on Raman Spectroscopy (ICORS 2006), Yokohama, Japan, .Ed., p. 383.

Punctaj 20/5 =4

13. Characterization of birch tree leaves, buds and bark dry extracts with antitumor activity”

C. A. Dehelean, S. Cîntă Pînzaru, C. I. Peev, C. Soica, D. S. Antal

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 64.

Punctaj 20/5 =4

14 Cancer diagnostic tests of colon carcinoma using micro-Raman and ATR-FT-IR spectroscopy”

S. Cîntă Pînzaru, L. M. Andronie, O. Cozar

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 54.

Punctaj 20/3=6,6666

15. Captopril antihypertensive drug adsorption versus coordination properties: experimental FT-IR, SERS and theoretical DFT study”

S. Cîntă Pînzaru, S. Cavalu, V. Chis, N. Peica, W. Kiefer

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 81.

**Punctaj 20/5 =4**

16. Adsorption behavior of hyaluronidase onto silver substrate”

S. Cavalu, **S. Cîntă Pînzaru**, N. Peica, W. Kiefer

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 86.

**Punctaj 20/4 =5**

17. «New substrate sample handling and micro-Raman sensing methods for biomolecular analysis”

**S. Cîntă Pînzaru**, N. Peica, U. Schmidt, W. Kiefer

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 62.

**Punctaj 20/4 =5**

18. Micro-Raman spectroscopy of complex nanostructured mineral systems

**S. Cîntă Pînzaru**, D. Pop,

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 131.

**Punctaj 20/2=10**

19. “Advanced vibrational investigations on new (metal)organic derivatives of mercapto-thiadiazole carboxylic acids”

M.M. Venter, **S. Cîntă Pînzaru**, V. Chiș, N. Peica, V.N. Bercean, M. Ilici, I. Haiduc, W. Kiefer

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 162.

**Punctaj 20/8=2,5**

20. „Characterization of nicotinic acid and its complexes by means of Raman and surface-enhanced Raman spectroscopy”

N. Peica, **S. Cîntă Pînzaru**, L. M. Andronie, O. Cozar, S. Cavalu, W. Kiefer

Book of Abstracts, 2<sup>nd</sup> International Conference “Advanced Spectroscopies on Biomedical and Nanostructured Systems”, Ed. S. Simon, Cluj-Napoca, Sept. 3-6, 2006, p. 80.

**Punctaj 20/6=3,3333**

21. „The in vitro study on stem cells of a dry birch tree bark extract”

Cristina A. Dehelean, Tatu C., **Cîntă-Pînzaru Simona**, Peev Camelia, Tanasie Gabriela

Proceedings, International Conference of Biochemistry and Molecular Biology, June 1-3, 2006, Constanta, Romania.

**Punctaj 20/6=3,3333**

22. “Synthesis and spectral characterization of new (5-mercapto-1,3,4-thiadiazole-2-yl)thyoacetato metal complexes”

Monica M. Venter, Vasile N. Bercean, Maria Ilici, **Simona Cîntă Pînzaru**, Leontin David, Anca Marcu, Ionel Haiduc,

Book of Abstracts, XXIX-th Romanian Chemistry Conference, 4-6 October, Călimănești-Căciulata, Vâlcea, România, p. 149.

**Punctaj 20/7=2,857**

23. In vitro studies of a birch tree bark extract simple and included in cyclodextrins

Dehelean C., Tatu C., **Cîntă- Pînzaru S.**, Peev C., Soica C.,Tanasie G., Anghel S.-, Book of Abstracts, Congresul National de Farmacie, ed. a XIII-a, Cluj- Napoca 28-30 sept.2006: 156.

**Punctaj 20/7=2,857**

24. Differentiation of bioactive pentacyclic triterpene species from plant extracts using GC-MS and FT-Raman spectroscopy

**S. Cîntă Pînzaru**, M. Culea, C. Dehelean,

Abstracts, National Conference of Biophysics, 11-14 May 2007, Bucharest, Romania, p. 29

**Punctaj 20/3=6,666**

25. Bridging biomolecules with nanoparticles: surface-enhanced Raman scattering from carcinoma tissues

**S. Cîntă Pînzaru**, L. M. Andronie, O. Cozar,

Abstracts, National Conference of Biophysics, 11-14 May 2007, Bucharest, Romania, p. 27.

**Punctaj 20/3=6,666**

26. Captopril adsorption onto nanostructures,

**S. Pînzaru**, S. Cavalu, V. Chis,

Abstracts, National Conference of Biophysics, 11-14 May 2007, Bucharest, Romania, p. 33.

**Punctaj 20/3=6,666**

27. Gas chromatography-mass spectrometric characterization of seabuckthorn oil,

. M. Culea, A. Iordache, **S. Cîntă- Pînzaru**, M. Nemtanu,

Abstracts, National Conference of Biophysics, 11-14 May 2007, Bucharest, Romania, p. 42.

**Punctaj 20/4=5**

28. Surface Enhanced Raman Scattering from Human Colon Carcinoma Tissue  
**S. Cîntă Pînzaru**, L. M. Andronie, M. Baia, O. Cozar  
ICAVS, Corfu, Greece, 2007, p. 278. **Punctaj 20/4=5**
29. Vibrational Spectroscopic Study of metoclopramide drug at different pH values  
N. Leopold, V. Chis, **S. Cinta Pinzaru**, O. Cozar, W. Kiefer,  
ICAVS, Corfu, Greece, 2007, p. 260. **Punctaj 20/5=4**
30. Ag Nanoparticles Adsorbed on Colon Tissue: SERS Approach in Cancer Diagnostic  
**S. Cîntă Pînzaru**, L. M. Andronie, C. Dehelean, O. Cozar, S. Astilean  
ECSBM, 1-6 Sept. 2007, Paris Bobigny, France, p. 228. **Punctaj 20/5=4**
31. Anticancer agents from *Betula Pendula Roth* extracts encapsulated in cyclodextrin species  
**S. Cîntă Pînzaru**, C. A. Dehelean and M. Culea,  
ECSBM, 1-6 Sept. 2007, Paris Bobigny, France, p. 240. **Punctaj 20/3=6,666**
32. Structural and toxicological evaluation of betulin and birch tree bark extract  
Cristina A. Dehelean, **S. Cîntă Pînzaru**, Anca Campean, Codruta Soica, Camelia Peev  
ECSBM, 1-6 Sept. 2007, Paris Bobigny, France, p. Suppl. 1 **Punctaj 20/6=3,3333**
33. Spectroscopic characterisation of Sea Buckthorn Oil,  
M. Culea, R. Minea, E. Culea, O. Cozar, S. Cîntă Pînzaru,  
*ECSBM, 1-6 Sept. 2007, Paris Bobigny, France, p. 298* **Punctaj 20/5=4**
34. Adsorption of 1- and 2-Naphtol Species on Ag colloidal nanoparticles  
L. M. Andronie **S. Cîntă Pînzaru**, O. Cozar  
ECSBM, 1-6 Sept. 2007, Paris Bobigny, France **Punctaj 20/3=6,666**
35. Reflection and Transmission Holograms of Coins: Experimental Approach  
Alexandra Falamas, **Simona Cinta Pinzaru**,  
ICPS 2007, 10-16 August 2007, University College London,  
[http://www.iaps.info/media/icps2007handbook\\_online.pdf](http://www.iaps.info/media/icps2007handbook_online.pdf) **Punctaj 20/2=10**
36. The Analysis of Betulinic Acid and its Hydroxypropylgamma Cyclodextrin Complex: Structural and Biological Evaluation  
C. A. Dehelean, **S. Cîntă-Pînzaru**, C. Soica, D.S. Antal, C.A. Tatu, V. Ordodi  
12-th International Meeting on Recent Developments in Pharmaceutical Analysis, RDPA 2007, Island of Elba, Italy, 23-26 Sept. 2007; **Punctaj 20/6=3,3333**
37. "FT-micro Raman prospects on Fluoride-treatment influence on human teeth",  
**S. Cîntă Pînzaru**, N. Har, M. Venter  
Rezumatelucrarilor prezentate la Simpozionul National de Biomateriale, „ Biomateriale si Aplicatii Medico-Chirurgicale, ed. A VI-a, Cluj-Napoca, 18-20 oct. 2007, Presa Universitara Clujeana, 2007, p. 16. **Punctaj 20/3=6,666**
38. "Reflection And Transmission Holograms Of Coins: Experimental Approach" Alexandra Falamas,  
**Simona Cinta Pinzaru**,  
The International Conference on Fundamental And Applied Research In Physics,  
25-27 October 2007, Iasi, Romania (FarPhys, 2007). **Punctaj 20/2=10**
39. In vitro and in vivo testsfor evaluate efficacy and toxicity of betulinic acid standalone or mixed with PVP  
C. A. Dehelean, C. Tatu, C. Soica, V. Ordodi, **S. Cinta Pinzaru** and C. Peev,  
PSE Congress „Plants for the human health in the post-genomic era”,  
Programme & Abstracts, 26-29 Aug 2007, Helsinki,  
Ed. By Annemari Knokka- Ihalainen K.-M. O. Caldantey, H. Risker, A. Ritaha, Edita Prima Oy, Helsinki  
2007 Issn 1455-0873  
<http://www.phytochemicalsociety.org/helsinki/S249.pdf> ISBN: 978-951-38-6321-0, JULKAISIJA .  
UTGIVARE . PUBLISHER  
ISBN 978-951-38-6322-7 (URL: <http://www.vtt.fi/publications/index.jsp>); ISSN 1455-0873 (URL:  
<http://www.vtt.fi/publications/index.jsp>)  
B3, P. 71 **Punctaj 20/6=3,3333**

40. STRUCTURE DETERMINATION OF NEW NITROGEN-CONTAINING HETEROCYCLIC DERIVATIVES USING SINGLE-CRYSTAL X-RAY DIFFRACTION.

M.M. Venter, V.N. Bercean, S. Cinta Pinzaru, A.E. Pascui, M. Ilici and I.Haiduc

Fifth Conference on Isotopic and Molecular Processes, PIM-2007, P.211

<http://www.itim-cj.ro/PIM/2007/Abstracts/Abstracts.pdf>

**Punctaj 20/6=3,3333**

41. Peev C., Cinta-Pinzaru S., **Dehelean Cristina**, Soica C., Kaycsa A., Feflea S., *A study of plane foliar buds: triterpenis compounds, phytobiologic analysis and in vitro antitumor activity*, 5th CMAPSEEC, 2-5.sept., Brno, Cehia, Abstract Book, ISBN 978-80-375-205-7, pp. 61, 2008.

**Punctaj 20/6=3,3333**

42. Peev C, Pinzaru S, **Dehelean Cristina**, Kaycsa A, Şoica C, Feflea S, Bumbacila B, *The in vitro study of anti-cancer activity of plane buds*, RSBMB International conference, Abstract Book, Annual International Conference of the Romanian Society of Biochemistry and Molecular Biology, Rom J Biochem, 45, 1, special issue, ISSN 1582-3318, Bucharest, pp. 119, 2008.

**Punctaj 20/7=2,857**

43. Raman and SERS spectroscopy of human tissues and its relevance in medical diagnostic

**S.C. Pinzaru**, L.M. Andronie, C. Dehelean, S. Astilean, O. Cozar, Proceedings of the XXI-st International Conference on Raman Spectroscopy (ICORS), Eds. Robert Withnall, Babur Z. Chowdhry, IM Publications LLP 2008, Charlton, Chichester, West Sussex, UK, p. 1042-1043.

ISBN: 978-1-906715-00-7; Available from the British Library

**Punctaj 20/5=4**

44. Supramolecular assembly of betulin derivatives-cyclodextrin species: FT-Raman study

**S.C. Pinzaru**, C.A. Dehelean, C. Soica, C.I. Peev,

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A. Falamas, **S. Cinta Pinzaru**, C. Lehene, V. Chis, M. Venter,

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N.Peica, **S. Cinta Pinzaru**, I. Pavel, M. Schmitt, J. Popp, G. Bringmann, W. Kiefer,

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Evidenced By Ft-Raman Spectroscopy

Mihaela Aluaş, **Simona Cinta-Pinzaru**,

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Cristina A.Dehelean, **Simona Cinta-Pinzaru**, Codruta Soica, Rita Ambrus, Camelia Peev,

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**Punctaj 20/5=4**

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Published May 2009; ISBN 978-0-7354-0668-1 One Volume, Print; 216 pages  
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### 3. Articole științifice publicate în reviste indexate în BDI (din lista CNCSIS) și în reviste românești recunoscute de CNCSIS tip B și B<sup>+</sup>

Se acorda 10 puncte pentru fiecare articol și se ține cont de numărul de autori.

Formula de calcul:  $10 / \text{număr de autori}$

**TOTAL 29,9158**

Quantitative and qualitative aspects in analysis of Ginseng pharmaceuticals using vibrational spectroscopy

Simona Cavalu, Simona Cîntă Pînzaru

Rom. J. Biophys. 2005 15(1-4):61-66.

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Cristina Adriana Dehelean, Camelia Peev, Simona Cîntă-Pînzaru, Codruta Soica, Adriana Kaicsa, Rev. Chim. Bucharest , nr. 11, 2006.

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Quantitative and qualitative second derivative FT-IR investigation regarding the starch and saponine content in Ginseng species”

Simona Cavalu, Simona Cîntă Pînzaru, Farmacia, 2006, LIII, 6, 56-60.

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“Synthesis and vibrational studies on new complexes of monodeprotonated (4H-5-mercapto-1,3,4-thiadiazole-2-yl)thioacetic acid”

M. M. Venter, V. Chiș, S. Cîntă Pînzaru, V.N. Bercean, M. Ilici and I. Haiduc,

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Surface Enhanced Raman Scattering Employed in Antimalarial Mechanism of Chloroquine Drug upon Hematin

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Gruia, Farmacia, 6, LV, 2007. p. 696-702.

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FT-Raman and FT-Infrared Investigations of Archaeological Artefacts from Foeni Neolithic Site (Banat, Romania)"

Simona Cîntă Pînzaru, D. Pop, L. Nemes,

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Dehelean CA, Soica C, Peev C, Ciurlea S, Coneac G, Cîntă-Pînzaru S.

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**Punctaj 10/6=1,666**

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FT-micro Raman prospects on Fluoride-treatment influence on human teeth

S. Cîntă Pînzaru, N. Har, M. M. Venter, N. Statov

**Punctaj 10/4=2,5**

### 4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed)

Se acorda 5 puncte pentru fiecare lucrare și se ține cont de numărul de autori.

Formula de calcul:  $5 / \text{număr de autori}$

*Total 5 puncte*

SERS-based sensors for monitoring the environmental pollution

**S. Cîntă Pinzaru**

Environment and Progress, 3/2005 (Eds). D. Ristoiu, C. Cosma, Ed. Carpatica, p. 85-90; ISSN: 1584-6733

**Punctaj: 5/1 =5**

**Criteriul II – Prestigiu profesional 30% (aplicat la total punctaj Criteriul II)**  
**Punctaj 2514,464 x 30%=754,3392**

**1. Citări ale articolelor ISI listate la Criteriul I**

Formula de calcul: număr citari x 10

**TOTAL: 420**

- **pentru articolele din reviste cu FI ISI < 1, se aplica formula de la punctul 2.**

*Adsorption of 6-Mercaptopurine and 6-Mercaptopurine-Riboside on Silver Colloid: A pH Dependent Surface Enhanced Raman Spectroscopy and Density Functional Theory Study. Part I. 6-Mercaptopurine*  
A. V. Szeghalmi, L. Leopold, **S. Pinzaru**, V. Chis, I. Silaghi-Dumitrescu, M. Schmitt, J. Popp, W. Kiefer\*  
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Punctaj: număr citari 9x 10 =**90 puncte**

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The studies of tautomerism in 6-mercaptopurine derivatives by <sup>1</sup>H-<sup>13</sup>C, <sup>1</sup>H-<sup>15</sup>N NMR and <sup>13</sup>C, <sup>15</sup>N CPMAS-experimental and quantum chemical approach  
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**TOTAL 10**

Formula de calcul: număr citari x 10

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## 5. Studenți naționali atrași (activități de coordonare științifică și didactică)

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)

Formula de calcul:

3 puncte x [(număr de proiecte, lucrări de licență) / număr de conducători științifici]

4 puncte x [(număr de lucrări de masterat conduse) / număr de conducători științifici]

4 lucrari licenta:  $3 \times 4 = 12$  puncte

3 Lucrari masterat  $4 \times 3 = 12$  puncte

**Total 24puncte**

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

Formula de calcul: valoarea in RON / 10.000

**TOTAL 142,69**

**Proiect CEEX 71: SUMA INTRATA UBB 1.021.333 LEI**

**punctaj 102,1**

33 membri



Nanostructuri si nanoparticule de metale nobile cu proprietati plasmonice multifunctionale pentru aplicatiilor relevante in nanofotonica, biodetectie si spectroscopie laser  
Contr. Nr. 71 /28.07.2006 (2006-2008).

**Proiect CEEEX 54** suma intrata UBB 259.000 lei

**punctaj 25,9**

membri 15

Cecetari privind masurarea deplasarilor micrometrice ale structurii unei centrale electrice subterane  
(CESTRUCT) Contract 54/2006 (2006-2008)

**Proiect PN II Parteneriate** suma intrata UBB 128.510 lei

**punctaj 12,85 (0,71/membru)**

Materiale oxidice micro si nanostructurate cu cromatica luminiscenta controlata pentru dispozitive de iluminat; Contract nr. 71-122/2007 (2008-2009)

**Proiect PN II INOVARE:** suma intrata UBB 18.400 lei

**punctaj 1,84 (0,18 /membru)**

Instalatie de obtinere a apei ultrapure din surse primare  
Contract nr. 177/19.08.2008 (2008-2009)

**12. Coordonări de programe/granturi finanțate din sursă națională (se menționează și valoarea)**

Formula de calcul: valoarea intrata in UBB in RON / 10.000

Grant PN II ID 2284/2008, INTRAT IN 2009: 78781 LEI

**PUNCTAJ 78781/10000= 7,878**

**13. Profesor invitat la universitati de prestigiu, cu titlu oficial**

Formula de calcul: 20 puncte x invitatii

Bayerische Juluis Maximilians Universitaet Wuerzburg, 2005  
Bayerische Juluis Maximilians Universitaet Wuerzburg, 2006  
C. Charan Singh College Univ. Meerut, India, 2006

**20 x3=60**

**14. Membru în comisii profesionale relevante, cu titlu oficial**

Formula de calcul: 5 puncte x nr. invitatii

### 15. Conferințe invitate internaționale

Se acorda 20 puncte pentru fiecare Conferință și se ține cont de numărul de autori.

Formula de calcul:  $20 / \text{număr de autori}$

#### Invited lectures:

International Conference on Perspectives in Vibrational Spectroscopy, (ICOPVS) Meerut, India, 25-28 feb. 2006;

Simona Cîntă Pînzaru

“Raman and SERS spectroscopy in antimalaria research monitoring the interaction mechanism of quinoline based drugs with hematin”

$20/1 = 20$

Structural information, unfolding and aggregation in globular proteins, by Raman, SERS, FT-IR and complementary EPR spectroscopy,

S. Cavalu, S. Cîntă Pînzaru, G. Damian,

Proceedings ICOPVS 2006, International Conference on Perspectives in Vibrational Spectroscopy, Meerut, India, 25-28 feb. 2006; Ed. R.K. Soni, et al, Anita Publ. New Delhi 110017, India, p.3.

$20/3 = 6,666$

Workshop: „Introduction to Confocal Raman and Scanning Probe Microscopy”, March 5-6, 2008, Cluj-Napoca, Romania

**Invited lecture:** S. Cîntă Pînzaru, „Surface-enhanced Raman Scattering (SERS): cutting edge in sensing technologies and applications”

<http://www.witec-instruments.de/en/eventsseminars/files/FlyerCluj08.pdf>

$20/1 = 20$

### 16. Membru în comitete de organizare sau științifice ale unor conferințe internaționale

Se acorda 20 puncte pentru fiecare comitet.

Formula de calcul:  $20 \times \text{nr. Comitete}$

Membra în Comitetul Organizatoric. al “Nanospec 2006”

Membra în Comitetul Organizatoric. al “Nanospec 2008”

Membra în International Advisory Board ICOPVS, 2006, Meerut, India

International Scientific Committee of ICOPVS, 2006, Meerut, India

$20 \times 4 = 80$

### **III. Realizare remarcabilă 10% (aplicat la total punctaj Criteriul III)**

(Descrieți într-o manieră cât mai accesibilă (în maximum 1 pagină) cea mai importantă realizare științifică/tehnică/artistică din ultimii 5 ani și impactul acesteia.)

De menționat: obținerea în premiera a semnalului micro-Raman amplificat (SERS) de la țesuturi cu ajutorul nanoparticulelor de Ag coloidal. S-a aratat ca aceste abordari experimentale pot oferi o alternativa atractiva de diagnosticare precoce a cancerului, în faza incipienta, datorita modificarilor subtile care apar la nivel molecular. Primele rezultate au fost publicate în regim de „Rapid communication” la Journal of Raman Spectroscopy (i.f. 3,526).

**Total punctaj = 0,6 x (total punctaj Criteriul I) + 0,3 x (total punctaj Criteriul II) + 0,1 x (total punctaj Criteriul III)**

Data: 15.03.2010

Semnătura: S. Cinta Pinzaru

**Certific validitatea datelor prezentate**

Sef de catedră,