



## Universitatea Babeș-Bolyai Competiția Excelenței 2010

### Model de completare Dosar individual

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

<b>Nume, prenume, grad did.</b>	<b>PINZARU SIMONA, CONF. DR</b>
<b>Facultatea, Catedra</b>	Facultatea de Fizica, Catedra de Spectroscopie Moleculara
<b>Domeniul științific</b>	Științele vietii
<b>Adresa paginii web personale</b>	<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>
<b>Adresa e-mail</b>	simona.cinta@phys.ubbcluj.ro

### **Criteriul I – Output (60%)**

**total punctaj: 2717,625 + 510,994 + 315,498 + 29,915+5 = 3579,032**

- Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate): 17 articole 2717,625 pct
- Articole științifice publicate în ISI proceedings  
30 / număr de autori) x Factor de impact ISI x 10 3 articole 510,994 pct  
In cazul in care nu are Factor de impact ISI : 1 articol/20/nr.autori 315,498 pct
- Articole științifice publicate în reviste indexate în BDI (din lista CNCSIS) și în reviste românești recunoscute de CNCSIS tip B și B<sup>+</sup>: 11 articole 10 p / nr. Aut. 29,915
- Alte articole științifice publicate în reviste cu referenți: 1 articol 10 p / nr. autori 5 pct

### **Criteriul II – Prestigiu profesional 30%**

**total punctaj: 420 + 10 + 1240 + 24 + 142,69 + 15,75+60+46,66+80 = 2039,01 pct**

- Citări ale articolelor ISI listate la Criteriul I 42 citari 420 pct
  - Alte citări ale lucrărilor listate mai sus 1 citare 10 pct
  - Citări în perioada 05-09 ale articolelor anterioare anului 2005 124 citari 1240 pct
  - Studenți naționali atrași  
- Îndrumare lucrari de licență (număr lucrări susținute) 4 lucrari licenta: 3x 4= 12 pct  
- Îndrumare lucrări de disertație (număr lucrări susținute) 3 lucrari dizertatie 12 pct
  - Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea)  
membru in 4 contracte nationale 142,69 pct
  - Coordonări de programe/granturi finanțate din sursă națională (se menționează și valoarea  
Director PN II ID 2284/2008, intrat in 2009: 78781 lei punctaj: 2x 78781/10000= 15,75 pct
  - Profesor invitat la universitati de prestigiu, cu titlu oficial.....3 invitatii x20 = 60 pct
  - Conferințe invitate internaționale 46,66 pct
  - Membru în comitete de organizare sau științifice ale unor conferințe internaționale  
membru in 4 comitete de organizare 80 pct
- Total punctaj criteriul I si II: 0,6 x 3579,032+ 0,3 x 2039,01+ 10% x X = 2147,4+611,73= 2759,14**

Data:

Semnătura: S. C. Pinzaru

16.03.2010

**Certific validitatea datelor prezentate**

Sef de catedră,



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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 :  $0,3768 \times 300 = 113,04$
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 :  $0,724 \times 300 = 217,2$
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:  $0,237 \times 300 = 71,1$
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:  $10 \times 0,49425 \times 30 = 148,275$
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 :  $0,165 \times 300 = 49,5$
- 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 :  $0,207 \times 300 = 62,1$
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 :  $0,165 \times 300 = 49,5$
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 :  $0,165 \times 300 = 49,5$
13. New Metal Complexes of Monoanionic (3*H*-2-Thioxo-1,3,4-Thiadiazol-5-yl)-Thioacetic Acid. X-Ray Structure Of  $[\text{Na}(\text{C}_2\text{N}_2\text{HS}_3\text{CH}_2\text{COO})(\text{H}_2\text{O})_4]_2 \cdot 2\text{H}_2\text{O}$   
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 :  $0,0655 \times 300 = 19,65$
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 :  $0,705 \times 300 = 211,5$
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 :  $0,94 \times 300 = 271,5$
- 
16. Theoretical and vibrational spectral investigation of sodium salt of acenocoumarol
-

I. Hubert Joe, Irena Kostova, C. Ravikumar, M. Amalanathan, and **Simona Cînta Pinzaru**,  
J. Raman Spectrosc., 40, 8 (2009) 1033 - 1038.

IF 3,526/5=0,705

Punctaj : 0,705x300= 211,56

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.

IF 3,526

Punctaj: 3,526 x 300 =1057,8

## 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 Cînta-Pinzaru**, Daniela Ionescu, Codruta Soica and Camelia Peev,  
Toxicology Lett 189 S1 (2009) S57-S273, M07.[doi:10.1016/j.toxlet.2009.06.297](https://doi.org/10.1016/j.toxlet.2009.06.297)

IF 3.249 /5= 0.6498

Punctaj: **194,94**

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

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

IF 3.249 /5= 0.6498

Punctaj: **194,94**

In vitro studies on mesenchimal 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>

IF. 2,826/7= 0,4037

PUNCTAJ: **121,114**

### 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.

Punctaj: 20 / 8 =2,5

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

Punctaj: 20 /2= 10

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

**S. Cîntă Pînzaru**, 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 Carboxilic 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 proporţiei de compuşi principali cu acţiune terapeutică”, 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. Leopold, S. Astilean, W. Kiefer,

Proceedings of the 6<sup>th</sup> Balcan Physical Union (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. Chiş, 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, Călimăneşti-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. Nemptanu,  
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**
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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**

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**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**

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

- Îndrumare lucrări 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 lucrări licență:  $3 \times 4 = 12$  puncte

3 Lucrări 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 CEEEX 71: SUMA INTRATA UBB 1.021.333 LEI**

**punctaj 102,1**

33 membri

Nanostructuri si nanoparticule de metale nobile cu proprietati plasmonice multifunctionale pentru aplicatii 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 micrometriche 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 naotructurate cu cromatica luminiscenta controlat 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 Conferința 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 in Comitetul Organizatoric. al “Nanospec 2006”

Membra in Comitetul Organizatoric. al “Nanospec 2008”

Membra in 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, in faza incipienta, datorita modificarilor subtile care apar la nivel molecular. Primele rezultate au fost publicate in 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,