



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.	NAGY MELINDA-KATALIN, ASISTENT UNIVERSITAR
Facultatea, Catedra	Facultatea de Fizică, Catedra de Fizică Biomedicală
Domeniul științific	Fizică – ciocniri atomice
Adresa paginii web personale	http://atom.ubbcluj.ro/katalin (în maghiară)
Adresa e-mail	katalin.nagy@phys.ubbcluj.ro

Criteriul I – Output

TOTAL I 767.46 pt.

- | | | |
|--|------------|------------|
| 1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate) | 2 articole | 354.30 pt. |
| 2. Articole științifice publicate în ISI proceedings | 4 articole | 382.91 pt. |
| 4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed) | 1 articol | 2.50 pt. |
| 7. Editor de volume publicate în edituri naționale și internaționale
- edituri naționale | 1 carte | 27.75 pt. |

Criteriul II – Prestigiu profesional

TOTAL II 406.375 pt.

- | | | |
|---|---------------------------------|------------|
| 1. Citări ale articolelor ISI listate la Criteriul I | 6 citari | 60 pt. |
| 3. Citări în perioada 2005-2009 ale articolelor anterioare anului 2005 | 29 citari | 290 pt. |
| 5. Studenți naționali atrași (activități de coordonare științifică și didactică) | | |
| - Îndrumare lucrari de licență (număr lucrări susținute) | 1 lucrare | 1.5 pt. |
| - Îndrumare lucrări de disertație (număr lucrări susținute) | 1 lucrare | 2 pt |
| 10. Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea) | Membri in 3 contracte nationale | 52.875 pt. |

TOTAL I+II = 0.6 x 767.46 + 0.3 x 406.375 = 582.39 pt.

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

Am finalizat teza mea de doctorat.

Data:
16.03.2010

Semnătura:

Certific validitatea datelor prezentate

Sef de catedră,
Prof.dr. David Leontin



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RECTORATUL

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Dosar individual

Notă: Toate datele se referă la perioada 2005-2009

Nume, prenume, grad did.	NAGY MELINDA-KATALIN, ASISTENT UNIVERSITAR
Facultatea, Catedra	Facultatea de Fizică, Catedra de Fizică Biomedicală
Domeniul științific	Fizică
Adresa paginii web personale	http://atom.ubbcluj.ro/katalin (în maghiară)
Adresa e-mail	katalin.nagy@phys.ubbcluj.ro

Criteriul I – Output

TOTAL I

767.46 p.

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

1	2008, J. L. Baran, S. Das, F. Járαι-Szabó, K. Póra , L. Nagy, and J. A. Tanis, Suppression of primary electron interferences in the ionization of N ₂ by 1–5-MeV/u protons, Phys. Rev. A, vol. 78, 012710 (IF: 2.908)	145.4
2	2009, F. Járαι-Szabó, K. Nagy-Póra , L. Nagy, Semiclassical model for calculating fully differential ionization cross sections of the H ₂ molecule, J Phys. B, vol. 42, nr. 24, 245203 (IF: 2.089 (2008))	208.9

2. Articole științifice publicate în ISI proceedings

1	2005, K. Póra , L. Nagy, Interference effects in the differential ionization cross-section of H ₂ by H ⁺ impact, Nucl. Inst. And Methods B, vol. 233, issue 1–4, 293–297 (IF: 1.18)	177
2	2006, L. Nagy, S. Borbély, and K. Póra , Interference Effects in the Ionization of Diatomic Molecules, Brazilian Journal of Physics, vol. 36, no. 2B, 511–514 (IF: 0.494)	49.4
3	2009, K. Póra , L. Nagy, Molecular orientation influence on the interference pattern, Nucl. Inst. And Methods B, vol. 267, issue 2, 370–372 (IF: 0.999 (2008))	149.85
4	2009, S. Borbély, K. Póra and L. Nagy, Non-perturbative investigation of the interference effects in the ionization of the H ₂ by charged particle impact, J. Phys: Conf. Series, vol. 163, 012067 (IF: -)	6.66

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

1	2008, Póra Katalin , Nagy László, Az ionizációs differenciális hatáskeresztmetszet tanulmányozása H ₂ molekula esetében, Műszaki Szemle, Fizika szám 41/2008, 18–23	2.5
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**7. Editor de volume publicate în edituri naționale și internaționale
- edituri naționale**

1	2008, Katalin Póra , Vasile Chiș, Ladislau Nagy, 4th Conference on Elementary Processes in Atomic Systems, Book of Abstracts, Editura Napoca Star, ISBN 978-973-647-596-2 (185 p.)	27.75
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Criteriul II – Prestigiu profesional

TOTAL II 406.375 p.

1. Citări ale articolelor ISI listate la Criteriul I

1	<p>2008, J. L. Baran, S. Das, F. Járαι-Szabó, K. Póra, L. Nagy, and J. A. Tanis, Suppression of primary electron interferences in the ionization of N₂ by 1–5-MeV/u protons, Phys. Rev. A, vol. 78, 012710 (IF: 2.908)</p> <ol style="list-style-type: none"> 2009, Winkworth M, Fainstein PD, Galassi ME, et al., Interference effects in electron emission spectra for 3 MeV/u H⁺ + O-2 collisions, Journal of Physics Conference Series, Volume: 163, 12044 2009, Misra D, Kelkar AH, Chatterjee S, et al., Second-order interference in collisions of 4-MeV/u F⁹⁺ ions with H-2, Physical Review A, Volume: 80, Issue: 6, 062701 	87.24
2	<p>2005, K. Póra, L. Nagy, Interference effects in the differential ionization cross-section of H₂ by H⁺ impact, Nucl. Inst. And Methods B, vol. 233, issue 1–4, 293–297 (IF: 1.18)</p> <ol style="list-style-type: none"> 2007, D. Misra, A.H. Kelkar, L.C. Tribedi, Young type interference effect on the forward-backward asymmetry parameter in electron emission from H₂ under fast ion impact, Journal of Physics: Conference Series, Volume 80, Issue: 1, 012014 2007, Misra D, Kelkar A, Kadhane U, et al., Angular distribution of low-energy electron emission in collisions of 6-MeV/u bare carbon ions with molecular hydrogen: Two-center mechanism and interference effect, Physical Review A, Volume: 75, Issue: 5, 052712 2009, Winkworth M, Fainstein PD, Galassi ME, et al., Interference effects in electron emission spectra for 3 MeV/u H⁺ + O-2 collisions, Journal of Physics Conference Series, Volume: 163, 12044 2009, Misra D, Kelkar AH, Chatterjee S, et al., Second-order interference in collisions of 4-MeV/u F⁹⁺ ions with H-2, Physical Review A, Volume: 80, Issue: 6, 062701 	47.2

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

1	<p>2002, L. Nagy, L. Kocbach, K. Póra and J. P. Hansen, Interference effects in the ionization of H₂ by fast charged projectiles, J Phys. B, vol. 35, nr.20, L453–L459 (IF:1.969)</p> <ol style="list-style-type: none"> 2005, Stochkel K, Eidem O, Cederquist H, et al., Two-center interference in fast proton-H-2-electron transfer and excitation processes, Physical Review A Volume: 72 Issue: 5 Article Number: 050703 2005, Fremont F, Hajaji A, Naja A, et al., Fast oscillating structures in electron spectra following Heq⁺⁺He collisions (q=1,2) at low projectile energies, Physical Review A Volume: 72 Issue: 5 Article Number: 050704 2005, Hossain S, Landers AL, Stolterfoht N, et al., Interference phenomena associated with electron-emission from H-2 by (1-5)-MeV H⁺ impact, Physical Review A Volume: 72 Issue: 1 Article Number: 010701 2005, Hossain S, Stolterfoht N, Tanis JA, Coherent two-center electron emission from static and transient molecules, Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms Volume: 233 Pages: 201-206 	250
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5. 2005, Kamalou O, Chesnel JY, Martina D, et al., Evidence for interference effects in both slow and fast, electron emission from D-2 by energetic electron impact, *Physical Review A* Volume: 71 Issue: 1 Article Number: 010702
6. 2006, Stolterfoht N, Interferences in electron emission from H-2 induced by fast ions, *Photonic, Electronic and Atomic Collisions* Pages: 470-477
7. 2006, Misra D, Kumar A, Kadhane UR, et al., Two center electron emission in collisions of fast ions with H, and H-2: Interplay between interference and Compton profile effect, *Radiation Physics And Chemistry* Volume: 75 Issue: 11 Pages: 1723-1726
8. 2006, Tanis JA, Chesnel JY, Sulik B, et al., Angular and high-frequency analysis of electron interference structures in similar to 60 MeV/u Kr³⁴⁺⁺H-2 collisions, *Physical Review A* Volume: 74 Issue: 2 Article Number: 022707
9. 2006, Della Picca R, Fainstein PD, Martiarena ML, et al., Angular distributions of photoelectrons emitted from fixed in-space hydrogen molecular ions, *Journal Of Physics B-Atomic Molecular And Optical Physics* Volume: 39 Issue: 3 Pages: 473-484
10. 2007, Sisourat N, Caillat J, Dubois A, et al., Coherent electron emission from molecules induced by swift ion impact, *Physical Review A* Volume: 76 Issue: 1 Article Number: 012718
11. 2007, Rivarola RD, Coherent electron emission from molecular targets, *Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms* Volume: 261 Issue: 1-2 Pages: 161-165
12. 2007, Tanis JA, Hossain S, Electron interferences in the ionization of H-2, *Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms* Volume: 261 Issue: 1-2 Pages: 226-229
13. 2007, Misra D, Kelkar A, Kadhane U, et al., Angular distribution of low-energy electron emission in collisions of 6-MeV/u bare carbon ions with molecular hydrogen: Two-center mechanism and interference effect, *Physical Review A* Volume: 75 Issue: 5 Article Number: 052712
14. 2007, D. Misra, A.H. Kelkar, L.C. Tribedi, Young type interference effect on the forward-backward asymmetry parameter in electron emission from H₂ under fast ion impact, *Journal of Physics: Conference Series*, Volume 80, Issue: 1, 012014
15. 2007, Barrachina RO, Young electron interference effects in atomic ionization collisions, *Radiation Physics And Chemistry* Volume: 76 Issue: 3 Pages: 375-379
16. 2009, Zhang SF, Suske J, Fischer D, et al., Electron angular distributions in He single ionization impact by H-2(+) ions at 1 MeV, *Journal of Physics Conference Series* Volume: 163 Pages: 12041
17. 2009, Winkworth M, Fainstein PD, Galassi ME, et al., Interference effects in electron emission spectra for 3 MeV/u H⁺ + O-2 collisions, *Journal of Physics Conference Series* Volume: 163 Pages: 12044
18. 2009, Chatterjee S, Misra D, Kelkar AH, et al., Young type interference in electron emission from H-2 and forward-backward asymmet, *Journal of Physics Conference Series* Volume: 163 Pages: 12074
19. 2009, Misra D, Kelkar AH, Chatterjee S, et al., Second-order interference in collisions of 4-MeV/u F⁹⁺ ions with H-2, *Physical Review A* Volume: 80 Issue: 6 Article Number: 062701
20. 2009, Della Picca R, Fainstein PD, Martiarena ML, et al., Cooper minima and Young-

	<p>type interferences in photoionization of one-electron molecular ions, Physical Review A Volume: 79 Issue: 3 Article Number: 032702</p> <p>21. 2009, Tachino CA, Galassi ME, Martin F, et al., Coherence in collisionally induced electron emission from diatomic heteronuclear molecules, Journal Of Physics B-Atomic Molecular And Optical Physics Volume: 42 Issue: 7 Article Number: 075203</p> <p>22. 2009, Chatterjee S, Kasthurirangan S, Kelkar AH, et al., Fast-electron impact ionization of molecular hydrogen: energy and angular distribution of double and single differential cross sections and Young-type interference, Journal Of Physics B-Atomic Molecular And Optical Physics Volume: 42 Issue: 6 Article Number: 065201</p> <p>23. 2009, Tanis JA, Interferences in coherent electron emission from diatomic molecules, Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms Volume: 267 Issue: 2 Pages: 201-205</p> <p>24. 2009, Winkworth M, Fainstein PD, Galassi ME, et al., Interferences in electron emission from O-2 by 30 MeV O-5,O-8+ impact, Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms Volume: 267 Issue: 2 Pages: 373-376</p> <p>25. 2009, L. Saelen, T. Birkeland, N. Sisourat, J.P. Hansen, A. Dubois, Full 3D ab initio studies of interference effects in high-energy ion-molecule collisions, Journal of Physics: Conference Series 194, 012045</p>	
2	<p>2004, L. Nagy, S. Borbély, K. Póra, Interference effects in the photoionization of molecular hydrogen, Phys. Lett. A, vol. 327, nr. 5–6, 481–489 (IF: 1.454)</p> <p>1. 2006, Della Picca R, Fainstein PD, Martiarena ML, et al., Angular distributions of photoelectrons emitted from fixed in-space hydrogen molecular ions, Journal Of Physics B-Atomic Molecular And Optical Physics, Volume: 39, Issue: 3, Pages: 473-484</p> <p>2. 2008, Schoffler MS, Kreidi K, Akoury D, et al., Photo-double-ionization of H-2: Two-center interference and its dependence on the internuclear distance, Physical Review A Volume: 78 Issue: 1 Article Number: 013414</p> <p>3. 2008, A.D. Bandrauk, S. Barmaki, S. Chelkowski, G.L. Kamta, Molecular high order harmonic generation, Springer Series in Chemical Physics 89 171-205</p> <p>4. 2009, J.-H. Wu, J.-M. Yuan, Interference effects on the photoionization cross sections between two neighbouring atoms: Nitrogen as an example, Chinese Physics B 18 (12) 5283-5290</p>	40

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

Îndrumare lucrări de licență	1	2 cond	1.5
Îndrumare lucrări de disertație	1	2 cond	2

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

1	<p>PN_II numarul: ID 539 durata: 01.10.2007 - 30.09.2010 Titlul proiectului: Tranzitii electronice in atomi si molecule in interactiune cu particule incarcate si campuri laser bugetul contractat: 834444 RON bugetul consumat pana la 2009 inclusiv: 471323.42 RON</p>	47.132342
2	<p>Grantul Academiei Romane numarul:31/2007 durata:2007 Titlul proiectului: Ionizarea moleculelor prin impulsuri laser foarte scurte, efecte de</p>	1.22322

	interferenta bugetul contractat:14000 RON bugetul realizat: 12232.2 RON	
3	Grant CNCISIS Tip A numarul: 2005 Tema 16/180 2006 Tema 40/180 2007 Tema 36/180 durata:2005-2007 Titlul proiectului: Studiul dinamicii sistemelor nanostructurate; tranzitii electronice, efecte cuantice bugetul contractat: 12650 RON (2005), 16445 RON (2006), 16100 RON (2007) bugetul realizat: 12650 RON (2005), 16445 RON (2006), 16100 RON (2007)	4.5195

Data:

16.03.2010

Semnătura:

Certific validitatea datelor prezentate

Sef de catedră,

Prof.dr. David Leontin