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Affiliation

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Education

M.Sc. /Sofia University “Saint Kliment Ohridski”, Department of Physics, Optics and Spectroscopy, 1999/
PhD / Academician Emil Djacov Institute of Electronics, Bulgarian Academy of Sciences, 2008/

Main research area

Physics, atomic physics, high resolution spectroscopy, coherent population trapping, magneto-optical effects, nonlinear Faraday effect.

Scientific awards and membership in scientific societies

Award “Acad. Emil Djakov”, 2003
Bulgarian Physical Union.

Scientific database:

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Selected scientific publications

1. E. Taskova, E. Alipieva and G. Todorov “Peculiarities of the coherent population trapping resonance in the fluorescence obtained in a coated ^{87}Rb cell in the presence of transverse magnetic field: Theory and experiment”, *J. Phys. B: At. Mol. Opt. Phys.* 51 (3), 035005, (2018).
2. E. Taskova, E. Alipieva and G. Todorov, “Contribution of the polarization moments of different rank to the integral CPT signal”, Proceedings of SPIE, 10226, Pages 102260O-102260O-5, (2017).
3. E. Mariotti, V. Biancalana, R. Cecchi, Y. Dancheva, Alen Khanbekyan, C. Marinelli, L. Moi, L. Stiaccini, S. Cartaleva, C. Andreeva, E. Alipieva; S. Gateva; A. Krasteva; D. Slavov; E. T. Taskova; M. Taslakov; P. Todorov; S. Tsvetkov; A. Wilson Gordon; L. Margalit; W. Gawlik, S. Pustelny, A. Stabrawa, J. Sudyka, A. Wojciechowski, F. Renzoni, C. Deans, S. Hussain; L. Marmugi; D. Rassi; O. Ozun; D. Sarkisyan; H. Azizbekyan; R. Drampyan, Alek. Khanbekyan; R. Mirzoyan ; A. Papoyan; A. Sargsyan; S. Shmavonyan; A. Tonoyan; P. N. Ghosh; S. Dey; S. Mitra, B. Ray, K. A. Nasyrov; P. Chapovsky; V. Entin; N. Nikolov; N. Petrov ; D. Budker, B. Patton, A. Wickenbrock, L. Zhivun, S.

Gozzini, “Forty years after the first dark resonance experiment: an overview of the COSMA project results”, Proceedings of SPIE, 10226, Pages 102260K-102260K-9, (2017).
4. Taskova, E., Alipieva, E., Todorov, G., “Stray magnetic field influence on the CPT resonance in a coated Rb vacuum cell”, Journal of Physics: Conference Series Vol. 700 (1), 012015, (2016).
5. Taskova, E.T., Alipieva, E.A., Todorov, G.Tz., “Magneto-optical resonance of the polarized fluorescence in a paraffin-coated 87Rb vacuum cell”, Proceedings of SPIE, 9447, 94470A, (2015).
6. Gateva, S., Alipieva, E., Taskova, E., Todorov, G., “Coherent population trapping resonance structure in paraffin-coated Rb vacuum cells”, Proceedings of SPIE - The International Society for Optical Engineering, 7747, 77470G, (2011).
7. Gateva, S., Gurdev, L., Alipieva, E., Taskova, E., Todorov, G., “Narrow structure in the coherent population trapping resonances in rubidium and Rayleigh scattering”, Journal of Physics B: Atomic, Molecular and Optical Physics, 44 (3), 035401, (2011).
8. S. Gateva, E. Alipieva, L. Petrov, E. Taskova, G. Todorov, “Single frequency coherent-population-trapping resonances for magnetic field measurement”, *J. Optoelectron. Adv. Mater.* 10 (1), 98-103, (2008).
9. Gateva, S., Petrov, L., Alipieva, E., Todorov, G., Domelunksen, V., Polischuk, V., “Shape of the coherent-population-trapping resonances and high-rank polarization moments”, *Physical Review A - Atomic, Molecular, and Optical Physics*, 76 (2), art. no. 025401 (2007).
10. Alipieva E., Gateva S., Taskova E., Cartaleva S., “Narrow structure in the CPT resonance in Rb”, Opt. Lett. 28(19), pp. 1817-1819, (2003).
11. A. Huss, R. Lammegger, L. Windholz, E. Alipieva, S. Gateva, L. Petrov, E. Taskova and G. Todorov, “Polarization-dependent sensitivity of level-crossing, coherent-population-trapping resonances to stray magnetic fields”, JOSAB 23(9), pp. 1729-1736, (2006).
12. Alipieva E., Gateva S., Taskova E., “Potential of the single-frequency resonances for magnetic field measurement”, IEEE Trans. Instrum. Meas., 54(2), pp. 738-741, (2005).
13. S. Gateva, E. Alipieva, and E. Taskova, “Power dependence of the coherent-population-trapping resonances registered in fluorescence and transmission: Resonance-width narrowing effects”, Phys. Rev. A 72(2), 025805, (2005).