

Списък с цитати на доц. д-р Красимир Ангелов Темелков

N. K. Vuchkov, N. V. Sabotinov, K. A. Temelkov, "Temperature scaling of a Sr^+ recombination laser", in *Proceedings of SPIE*, 3052, pp. 136-139, 1996. (Scopus-SJR; ISSN: 027-786X):

1. C. E. Little, "Metal Vapour Lasers – Physics, Engineering and Applications", John Wiley & Sons Ltd., 1999. (ISBN: 978-0-471-97387-4)

N. K. Vuchkov, N. V. Sabotinov, K. A. Temelkov, "Two-arm CuBr laser with a central electrode", *IEEE Journal Quantum Electronics*, 33(4), pp. 541-544, 1997. (Q1 om WoS; ISSN: 0018-9197):

2. C. E. Little, "Metal Vapour Lasers – Physics, Engineering and Applications", John Wiley & Sons Ltd., 1999. (ISBN: 978-0-471-97387-4)
3. V. B. Sukhanov, A. G. Filonov, D. V. Shiyanov, "A multiwave CuBr and PbBr₂ laser with a sectioned active volume", *Optics Communications*, 283(19), pp. 3557-3830, 2010. (ISSN:0030-4018)

N. K. Vuchkov, N. V. Sabotinov, K. A. Temelkov, "A CuBr vapor laser with a central electrode", in *Proc. of SPIE*, 3092, pp. 72-75, 1997. (Scopus-SJR; ISSN: 027-786X):

4. C. E. Little, "Metal Vapour Lasers – Physics, Engineering and Applications", John Wiley & Sons Ltd., 1999. (ISBN: 978-0-471-97387-4)

N. K. Vuchkov, K. A. Temelkov, N. V. Sabotinov, "UV Lasing on Cu^+ in a Ne-CuBr Pulsed Longitudinal Discharge", *IEEE Journal Quantum Electronics*, 35(12), pp. 1799-1804, 1999. (Q1 om WoS; ISSN: 0018-9197):

5. P. Horvath, G. Bano, K. Rozsa, "Optimization of hollow-cathode electrode configurations for heated metal ion lasers", in *Abstracts of XVth Europhysics Conference on Atomic and Molecular Physics of Ionized Gases*, Miskolc-Lillafured, Hungary, 26 - 30 August, 24F, pp.476-477, 2000. (<https://ww2.odu.edu/~lvuskovi/Abstracts.pdf>)
6. N. Baguer, A. Bogaerts, R. Gijbels, "Hollow cathode glow discharge in He: Monte Carlo-fluid model combined with a transport model for the metastable atoms", *Journal of Applied Physics*, 93 (1), pp. 47-55, 2003. (ISSN:0021-8979)
7. N. Baguer, A. Bogaerts, R. Gijbels, "Role of the fast Ar atoms, Ar^+ ions, and metastable Ar atoms in a hollow cathode glow discharge: Study by a hybrid model", *Journal of Applied Physics*, 94 (4), pp. 2212-2222, 2003. (ISSN:0021-8979)
8. T. M. Adamowicz, "Study of lasing and discharge plasma parameters in noble gas-metal atom mixtures", in *Proceedings of SPIE*, 5230, pp. 155-163, 2003. (ISSN: 027-786X)
9. A. Bogaerts, A. Okhrimovskyy, N. Baguer, R. Gijbels, "Hollow cathode discharges with gas flow: numerical modelling for the effect on the sputtered atoms and the deposition flux", *Plasma Sources Science and Technology*, 14, pp. 191–200, 2005. (ISSN:0963-0252)
10. N. Baguer, A. Bogaerts, Z. Donko, R. Gijbels, N. Sadenghi, "Study of the Ar metastable atom population in a hollow cathode discharge by means of a hydride model and spectrometric measurements", *Journal of Applied Physics*, 97, pp. 1-12, 2005. (ISSN:0021-8979)
11. N. Baguer and A. Bogaerts, "Study of the sputtered Cu atoms and Cu^+ ions in a hollow cathode glow discharge using a hybrid model", *Journal of Applied Physics*, 98(3), pp. 1-11, 2005. (ISSN:0021-8979)

12. G. Chen, B.-L. Pan, Z.-X. Yao, "Dynamic model for CuBr UV laser", Chinese Journal of Lasers, **33**, pp. 206-209, 2006. (ISSN:0258-7025)
13. B.-L. Pan, G. Chen, B.-N. Mao, Z.-X. Yao, "Kinetic process of UV Cu⁺ laser in Ne-CuBr longitudinal pulsed discharge", Optics Express, **14 (19)**, 2006. (ISSN:1094-4087)
14. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, "Radiation trapping effects in Cu, Mn, Ca, Sr, and Ba vapor lasers", Optics Communications, **273(1)**, pp. 214-218, 2007. (ISSN:0030-4018)
15. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, "Numerical study on parameters for a longitudinal pulsed discharge Ne-CuBr UV laser", ACTA PHYSICA SINICA, **56 (5)**, pp. 2652-2656, 2007. (ISSN:1000-3290)
16. S. Gocheva-Ilieva, "Modeling and prediction of laser generation in UV copper bromide laser via MARS", Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS international conference on Nanotechnology, UK, pp. 166-171, 2010. (ISBN ~ ISSN:1790-5117, 978-960-474-163-2)
17. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, "Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser", Mathematical Problems in Engineering, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)
18. И. П. Илиев и С. Г. Гочева-Илиева, "Исследование срока службы УФ Cu⁺ Ne – CuBr-лазера статистическими методами", «Квантовая электроника», **43(11)**, 2013. (ISSN: 1063-7818)
19. Y. Qin, F. He, X. X. Jiang, K. Xie, J. T. Ouyang, "Self-pulsing of hollow cathode discharge in various gases", Physics of Plasmas, **21**, art. No. 073501, 2014. (ISSN:1070-664X)
20. I. P. Iliev, "Multivariate Analysis For Investigating The Output Characteristics of UV Cu⁺ Ne-CuBr Laser", International Journal of Scientific & Technology Research, **3(12)**, pp. 14-20, 2014. (ISSN 2277-8616)

N. Vuchkov, N. Sabotinov, K. Temelkov, "Ultraviolet Copper laser", Patent Reg. No. 103312, 06.04.1999, Published Applications for Inventions, BG 10/2000.

21. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, "Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser", Mathematical Problems in Engineering, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)

N. V. Sabotinov, N. K. Vuchkov, T. S. Petrov, K. A. Temelkov, P. V. Zahariev, "Powerful UV Laser Oscillation on Copper and Gold Ion Lines in Nanosecond Pulsed Longitudinal Discharges", The 14th Annual meeting of the IEEE Lasers & Electro-Optics, San Diego, USA, 14 - 15 November, pp. 586-587, 2001:

22. G. Bano, L. Szalai, P. Horvath, K. Kutasi, Z. Donko, K. Rozsa, Journal of Applied Physics, **92 (11)**, pp.6372-6383, 2002. (ISSN:0021-8979)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev, N. V. Sabotinov, "Optimization of a UV Cu⁺ Laser Excited by Pulse-Longitudinal Ne-CuBr Discharge", IEEE Journal Quantum Electronics, **37(4)**, pp. 511-517, 2001. (Q1 or WoS; ISSN:0018-9197):

23. G. Chen, B.-L. Pan, Z.-X. Yao, "Dynamic model for CuBr UV laser", Chinese Journal of Lasers, **33**, pp. 206-209, 2006. (ISSN:0258-7025)
24. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, "Radiation trapping effects in Cu, Mn, Ca, Sr, and Ba vapor lasers", Optics Communications, **273(1)**, pp. 214-218, 2007. (ISSN:0030-4018)

25. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, "Numerical study on parameters for a longitudinal pulsed discharge Ne-CuBr UV laser", *ACTA PHYSICA SINICA*, **56** (5), pp. 2652-2656, 2007. (ISSN:1000-3290)
26. S. Gocheva-Ilieva and I. Iliev, "Modeling and Prediction of Laser Generation in UV Copper Bromide Laser via MARS", *Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS International Conference on Nanotechnology*, UK, pp. 166-171, 2010. (ISBN~ISSN: 1790-5117, 978-960-474-163-2)
27. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, "Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser", *Mathematical Problems in Engineering*, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)
28. I. P. Iliev, "Multivariate Analysis For Investigating The Output Characteristics of UV Cu⁺ Ne-CuBr Laser", *International Journal of Scientific & Technology Research*, **3(12)**, pp. 14-20, 2014. (ISSN 2277-8616)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev, N. V. Sabotinov, "Influence of the Active Zone Diameter on the UV-Ion Ne-CuBr Laser Performance", IEEE Journal Quantum Electronics, 37(12), pp. 1538-1546, 2001. (Q1 om WoS; ISSN:0018-9197):

29. T. M. Adamowicz, "Study of lasing and discharge plasma parameters in noble gas-metal atom mixtures", in *Proceedings of SPIE*, **5230**, pp. 155-163, 2003. (ISSN: 027-786X)
30. G. Chen, B.-L. Pan, Z.-X. Yao, "Dynamic model for CuBr UV laser", *Chinese Journal of Lasers*, **33**, pp. 206-209, 2006. (ISSN:0258-7025)
31. B.-L. Pan, G. Chen, B.-N. Mao, Z.-X. Yao, "Kinetic process of UV Cu⁺ laser in Ne-CuBr longitudinal pulsed discharge", *Optics Express*, **14** (19), 2006. (ISSN:1094-4087)
32. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, "Numerical study on parameters for a longitudinal pulsed discharge Ne-CuBr UV laser", *ACTA PHYSICA SINICA*, **56** (5), pp. 2652-2656, 2007. (ISSN:1000-3290)
33. S. Gocheva-Ilieva and I. Iliev, "Modeling and Prediction of Laser Generation in UV Copper Bromide Laser via MARS", *Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS International Conference on Nanotechnology*, UK, pp. 166-171, 2010. (ISBN~ISSN: 1790-5117, 978-960-474-163-2)
34. I. S. Valkov, "ASSESSMENT OF THE MAXIMUM SUPPLIED ELECTRIC POWER FOR A PURE COPPER VAPOR LASER", *Scientific Bulletin of the "Petru Maior" Universiti of Targu Mures*, **8 (XXV) (2)**, 2011. (ISSN 1841-9267)
35. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, "Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser", *Mathematical Problems in Engineering*, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)
36. I. P. Iliev, "Multivariate Analysis For Investigating The Output Characteristics of UV Cu⁺ Ne-CuBr Laser", *International Journal of Scientific & Technology Research*, **3(12)**, pp. 14-20, 2014. (ISSN 2277-8616)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev, and N. V. Sabotinov, "Laser tube for ultraviolet copper laser", Patent reg., no. 106759, 30.05.2002, Published Applications for Inventions BG 11/2001:

37. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, "Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser", *Mathematical Problems in Engineering*, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev and N. V. Sabotinov, "Kinetic and experimental study on the influence of the inside tube diameter on the UV ion Ne-CuBr laser

output parameters”, in *Proceedings of SPIE*, **4747**, pp.156-163, 2002 (Scopus-SJR; ISSN: 027-786X):

38. B.-L. Pan, G. Chen, B.-N. Mao, Z.-X. Yao, “Kinetic process of UV Cu⁺ laser in Ne-CuBr longitudinal pulsed discharge”, *Optics Express*, **14 (19)**, 2006. (ISSN:1094-4087)
39. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, “Radiation trapping effects in Cu, Mn, Ca, Sr, and Ba vapor lasers”, *Optics Communications*, **273(1)**, pp. 214-218, 2007. (ISSN:0030-4018)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev, N. V. Sabotinov, “A new laser tube construction for the UV Cu Ne-CuBr laser,” in Laser Technologies and Lasers, pp. 173–176, 2003:

40. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, “Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser”, *Mathematical Problems in Engineering*, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev, N. V. Sabotinov, “Output parameters and a spectral study of UV Cu⁺ Ne-CuBr laser”, Optics & Laser Technology, 36, pp.19-25, 2004. (Q3 om WoS; ISSN:0030-3992):

41. B.-L. Pan, G. Chen, B.-N. Mao, Z.-X. Yao, “Kinetic process of UV Cu⁺ laser in Ne-CuBr longitudinal pulsed discharge”, *Optics Express*, **14 (19)**, 2006. (ISSN:1094-4087)
42. B.-N. Mao, G. Chen, Y.-B. Wang, L. Chen, B.-L. Pan, “Numerical study on parameters for a longitudinal pulsed discharge Ne-CuBr UV laser”, *ACTA PHYSICA SINICA*, **56 (5)**, pp. 2652-2656, 2007. (ISSN:1000-3290)
43. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, “Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser”, *Mathematical Problems in Engineering*, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)
44. И. П. Илиев и С. Г. Гочева-Илиева, “Исследование срока службы УФ Cu⁺ Ne-CuBr-лазера статистическими методами”, «Квантовая электроника», **43(11)**, 2013. (ISSN: 1063-7818)

N. K. Vuchkov, K. A. Temelkov, N. V. Sabotinov, “Effect of Hydrogen on the Average Output Power of the UV Cu⁺ Ne-CuBr Laser”, IEEE Journal Quantum Electronics, 41 (1), pp. 62-65, 2005. (Q1 om WoS; ISSN:0018-9197):

45. B.-L. Pan, G. Chen, B.-N. Mao and Z.-X. Yao, “Kinetic process of UV Cu⁺ laser in Ne-CuBr longitudinal pulsed discharge”, *Optics Express*, **14 (19)**, 2006. (ISSN:1094-4087)
46. S. Gocheva-Ilieva and I. Iliev, “Modeling and Prediction of Laser Generation in UV Copper Bromide Laser via MARS”, *Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS International Conference on Nanotechnology, UK*, pp. 166-171, 2010. (ISBN~ISSN: 1790-5117, 978-960-474-163-2)
47. I. S. Valkov, “ASSESSMENT OF THE MAXIMUM SUPPLIED ELECTRIC POWER FOR A PURE COPPER VAPOR LASER”, *Scientific Bulletin of the “Petru Maior” Universiti of Targu Mures*, **8 (XXV) (2)**, 2011. (ISSN 1841-9267)
48. S. G. Gocheva-Ilieva, D. S. Voynikova, I. P. Iliev, “Modeling of Output Characteristics of a UV Cu⁺ Ne-CuBr Laser”, *Mathematical Problems in Engineering*, **2012**, art. No. 420782, 21 pages, 2012. (ISSN:1563-5147)
49. F. A. Gubarev, D. V. Shiyanov, V. B. Sukhanov, G. S. Evtushenko, “Capacitive-discharge-pumped CuBr laser with 12 W average output power”, *IEEE Journal of Quantum Electronics*, **49(1)**, art. No. 6355596, pp. 89-94, 2013. (Q2 от WoS; ISSN:0018-9197)

50. И. П. Илиев и С. Г. Гочева-Илиева, “Исследование срока службы УФ Cu⁺ Ne–CuBr-лазера статистическими методами”, «Квантовая электроника», **43(11)**, 2013. (ISSN: 1063-7818)
51. I. P. Iliev, “Multivariate Analysis For Investigating The Output Characteristics of UV Cu⁺ Ne-CuBr Laser”, International Journal of Scientific & Technology Research, **3(12)**, pp. 14-20, 2014. (ISSN 2277-8616)

K. Beev, K. Temelkov, N. Vuchkov, Tz. Petrova, V. Dragostinova, R. Stoycheva-Topalova, S. Sainov, N. Sabotinov, "Optical properties of polymer films for near UV recording" Journal of Optoelectronics and Advanced Materials, **7**, pp. 1315–1318, 2005. (Q2 om WoS: ISSN: 1454-4164):

52. S. Gocheva-Ilieva and I. Iliev, “Modeling and Prediction of Laser Generation in UV Copper Bromide Laser via MARS”, Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS International Conference on Nanotechnology, UK, pp. 166-171, 2010. (ISBN~ISSN: 1790-5117, 978-960-474-163-2)
53. S. S. Chiad, N. F. Habubi, M. H. Abdul-Allah, “Determination the dispersion parameters and urbach tail of iron chromate doped PMMA films”, Iraqi Journal of Physics, **10(17)**, pp. 12-17, 2012. (ISSN: 2070-4003)
54. I. P. Iliev, “Multivariate Analysis For Investigating The Output Characteristics of UV Cu⁺ Ne-CuBr Laser”, International Journal of Scientific & Technology Research, **3(12)**, pp. 14-20, 2014. (ISSN 2277-8616)

N. K. Vuchkov, K. A. Temelkov, P. V. Zahariev, N. V. Sabotinov, "Laser tube for ultraviolet copper laser", Bulgarian Patent No.64880, 03.08.2006:

55. И. П. Илиев и С. Г. Гочева-Илиева, “Исследование срока службы УФ Cu⁺ Ne–CuBr-лазера статистическими методами”, «Квантовая электроника», **43(11)**, 2013. (ISSN: 1063-7818)

K. A. Temelkov, N. K. Vuchkov, N V Sabotinov, "Cross sections and rate constants for charge transfer into excited states, Plasma Processes and Polymers", **3(2)**, pp. 147 – 150, 2006. (Q1 om WoS; ISSN: 1612-8850):

56. I. Korolov, G. Bánó, Z. Donkó, A. Derzsi, P. Hartmann, “Experimental study of the asymmetric charge transfer reaction between Ar⁺ ions and Fe atoms”, THE JOURNAL OF CHEMICAL PHYSICS, **134**, art. No.064308, 2011. (ISSN: 0021-9606)
57. F. A. Mangi, B. J. Simons, D. A. Jamro, N. A. Shaikh, G. A. Mallah, “Medical Application of Output Intensity Characterization of Red He-Ne Laser”, International Journal of Scientific & Engineering Research, **5(10)**, p. 332, 2014. (ISSN 2229-5518 IJSER © 2014 <http://www.ijser.org>)
58. Z. Weiss, E. B. M. Steers, J. C. Pickering, “Transition rates and transition rate diagrams in atomic emission spectroscopy: A review”, Spectrochimica Acta – Part B Atomic Spectroscopy, **110(1)**, pp. 9–90, 2015. (ISSN:0584-0547)

K. A. Temelkov, N. K. Vuchkov, N. V. Sabotinov, "Penning ionization cross sections and rate constants", Journal of Physics: Conference Series, **44 (1)**, art. No. 014, pp. 116-120, 2006. (Q3 в Scopus-SJR; ISSN: 1742-6596):

59. Z. S. Li, H. Niki, K. Kagawa, M. O. Tjia, R. Hedwig, M. Pardede, E. Jobilong, M. M. Suliyanti, S. N. Abdulmadjid, K. H. Kurniawan, “Observation of exclusively He-induced H emission in cooled laser plasma”, Journal of Applied Physics, **109(10)**, art. No. 10330, 2011. (ISSN:0021-8979)

60. M. M. Suliyanti, A. N. Hidayah, M. Pardede, E. Jobiliong, S. N. Abdulmadjid, N. Idris, M. Ramli, T. J. Lie, R. Hedwig, M. O. Tjia, K. H. Kurniawan, Z. S. Li, H. Niki, K. Kagawa, "Double pulse spectrochemical analysis using orthogonal geometry with very low ablation energy and He ambient gas", *Spectrochimica Acta – Part B Atomic Spectroscopy*, **69**, pp. 56-60, 2012. (ISSN:0584-0547)
61. G. Bano and Z. Donko, "On the high argon metastable atom density measured near the cathode surface of a hollow cathode discharge", *Plasma Sources Science and Technology*, **21**, art. No. 035011 (10pp), 2012. (ISSN:0963-0252)
62. K. H. Kurniawan, M. O. Tjia, K. Kagawa, "Preview of Laser-Induced Plasma, its Mechanism, and Application to Quantitative Analysis of Hydrogen and Deuterium", *Applied Spectroscopy Previews*, **49**, pp. 323-434, 2014. (ISSN: 0003-7028)
63. A. A. Kudryavtsev, M. S. Stefanova, P. M. Pramatarov, "Use of dc Ar microdischarge with nonlocal plasma for identification of metal samples", *Journal of Applied Physics*, 2015. (ISSN:0021-8979)

*K. A. Temelkov, N. K. Vuchkov, B. L. Pan, N. V. Sabotinov, B. Ivanov, L. Lyutov, "Strontium atom laser excited by nanosecond pulsed longitudinal He–SrBr₂ discharge", *Journal of Physics D: Applied Physics*, **39**, pp. 3769–3772, 2006. (Q1 om WoS; ISSN: 0022-3727):*

64. C. M. Widdifield, D. L. Bryce, "Solid-state ^{79/81}Br NMR and gauge-including projector-augmented wave study of structure, symmetry, and hydration state in alkaline earth metal bromides", *Journal of Physical Chemistry A*, **114(5)**, pp. 2102-2116, 2010. (ISSN: 1089-5639)
65. I. P. Iliev and S. G. Gocheva-Ilieva, "Modeling and simulation of output power of a high-power He–SrBr₂ laser by using multivariate adaptive regression splines", *Optics & Laser Technology*, **45**, pp. 461–468, 2013. (ISSN:0030-3992)
66. I. P. Iliev, "Temperature Analysis for Designing a New High- Powered Strontium Bromide Laser", *International Journal of Scientific & Technology Research*, **2(2)**, 2013. (ISSN 2277-8616)
67. I. P. Iliev and S. G. Gocheva-Ilieva, "Self-consistent analytical model of the radial temperature profile of a high-powered He–SrBr₂ laser", *Optical and Quantum Electronics*, **4(8)**, p. 397, 2016. (ISSN: 0306-8919)
68. I. P. Iliev and S. G. Gocheva-Ilieva, "Optimization of the temperature profile of a high-powered strontium bromide laser", *Electrical Engineering*, **100(3)**, pp. 1537-1544, 2018. (ISSN: 0948-7921)

*M. Ilieva, V. Tsakova, N. K. Vuchkov, K. A. Temelkov, N. V. Sabotinov, "UV copper ion laser treatment of poly-3,4-ethylenedioxythiophene" *Journal of Optoelectronics and Optoelectr. And Advanced Materials*, **9**, pp. 303–306, 2007. (Q4 om WoS; ISSN: 1454-4164):*

69. S. Gocheva-Ilieva and I. Iliev, "Modeling and Prediction of Laser Generation in UV Copper Bromide Laser via MARS", *Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS International Conference on Nanotechnology*, UK, pp. 166-171, 2010. (ISBN~ISSN: 1790-5117, 978-960-474-163-2)
70. I. P. Iliev, "Multivariate Analysis For Investigating The Output Characteristics of UV Cu⁺ Ne-CuBr Laser", *International Journal of Scientific & Technology Research*, **3(12)**, pp. 14-20, 2014. (ISSN 2277-8616)
71. M. Takahashi, T. Deguchi and M. Takashiri, "Effect of ultraviolet irradiation on poly(3,4-ethylenedioxythiophene) doped with ClO₄ thin films using electropolymerization", *Japanese Journal of Applied Physics*, **56(6S1)**, 2017. (ISSN: 0021-4922)

A. Bogaerts, K. A. Temelkov, N. K. Vuchkov and R. Gijbels, "Calculation of rate constants for asymmetric charge transfer, and their effect on relative sensitivity factors in glow discharge mass spectrometry", *Spectrochimica Acta – Part B Atomic Spectroscopy*, **62(4)**, pp. 325-336, 2007. (Q2 om WoS; ISSN:0584-0547):

72. N. Jakubowski, R. Dorka, E. Steers, Tempez, "Trends in glow discharge spectroscopy", *Journal of Analytical Atomic Spectroscopy*, **22**, pp. 722-735, 2007. (ISSN: 0267-9477)
73. Z. Weiss, "Glow discharge excitation and matrix effects in the Zn-Al-Cu system in argon and neon", *Spectrochimica Acta – Part B Atomic Spectroscopy*, **62(8)**, pp. 787-798, 2007. (ISSN:0584-0547)
74. C. G. Gago, N. Bordel, R. Pereiro², A. Sanz-Medel, "Investigation of the afterglow time regime in pulsed radiofrequency glow discharge time-of-flight mass spectrometry", *Journal of Mass Spectrometry*, **46(8)**, pp. 757–763, 2011. (ISSN: 1076-5174)
75. P. Serapinas, Ž. Ežerinskis and V. Juzikienė, "Effect of matrices with low second ionization potentials on analytical signals in inductively coupled plasma mass spectrometry", *Journal of Analytical Atomic Spectroscopy*, **26**, pp. 1997-2005, 2011. (ISSN: 0267-9477)
76. I. Korolov, G. Bánó, Z. Donkó, A. Derzsi, P. Hartmann, "Experimental study of the asymmetric charge transfer reaction between Ar⁺ ions and Fe atoms", *THE JOURNAL OF CHEMICAL PHYSICS*, **134**, art. No. 064308, 2011. (ISSN: 1076-5174)
77. I. Korolov, G. Bánó, Z. Donkó, "Experimental investigation of the asymmetric charge exchange reaction in the Ar⁺-Ni system in the afterglow of a pulsed glow discharge", *Spectrochimica Acta – Part B Atomic Spectroscopy*, **66 (9-10)**, pp. 706 – 711, 2011. (ISSN:0584-0547)
78. Y. V. Kovtun, E. I. Skibenko, A. I. Skibenko, V. B. Yuferov, "Estimation of the efficiency of material injection into the reflex discharge by sputtering the cathode material", *Ukrainian Journal of Physics*, **57(9)**, pp. 901-908, 2012. (ISSN: 2071-0186)
79. A. A. Ganeev, A. R. Gubal, K. N. Uskov, S. V. Potapov, "Analytical glow discharge mass spectrometry", *Russian Chemical Bulletin*, **61(4)**, pp. 752-767, 2012. (ISSN: 1066-5285)
80. R. E. Sturgeon, B. Methven, S. N. Willie, P. Grinberg, "Assignment of purity to primary metal calibrants using pin-cell VG 9000 glow discharge mass spectrometry: A primary method with direct traceability to the SI international system of units", *Metrologia*, **51(5)**, pp. 410-422, 2014. (ISSN: 0026-1394)
81. Z. Weiss, E. B. M. Steers, J. C. Pickering, "Transition rates and transition rate diagrams in atomic emission spectroscopy: A review", *Spectrochimica Acta – Part B Atomic Spectroscopy*, **110(1)**, pp. 9–90, 2015. (ISSN:0584-0547)
82. Y. V. Kovtun, A. N. Ozerov, A. I. Skibenko, E. I. Skibenko, V. B. Yuferov, "Calculations for parameters of a stationary reflex discharge", *Problems of Atomic Science and Technology*, **95(1)**, pp. 201-204, 2015. (ISSN: 1682-9344)
83. Z. Weiss, "Excitation and ionization of iron in argon and neon glow discharges: towards the true picture", *Spectrochimica Acta – Part B Atomic Spectroscopy*, **158**, art. No. 105637, 2019. (ISSN:0584-0547)
84. V. Garofano, F. Montpetit, X. Glad, R. K. Gangwar, L. Stafford, "Experiments and kinetic modeling of the ion energy distribution function at the substrate surface during magnetron sputtering of silver targets in radio frequency argon plasmas", *Journal of Vacuum Science & Technology A*, **37**, art. No. 021301, 2019. (ISSN: 0734-2101)

J. T. Mouchovski, K. A. Temelkov, N. K. Vuchkov and N. V. Sabotinov, "Laser grade CaF₂ with controllable properties: growing conditions and structural imperfection", *Journal of Physics D: Applied Physics*, **40**, pp. 7682-7686, 2007. (Q1 om WoS; ISSN:0022-3727):

85. An. S. Mysovsky, P. V. Sushko, E. A. Radzhabov, M. Reichling and A. L. Shluger, “Structure and properties of oxygen centers in CaF₂ crystals from *ab initio* embedded cluster calculations”, *Physical Review B*, **84**, art. No. 064133, 2011. (ISSN:2469-9950)
86. C. Li, X. Kang, W. Han, W. Zheng, L. Su, “Nanosecond laser-induced surface damage and material failure mechanism of single crystal CaF₂ (111) at 355 nm”, *Applied Surface Science*, **480**, pp. 1070-1077, 2019. (ISSN: 0169-4332)

K. A. Temelkov, N. K. Vuchkov, B. L. Pan, N. V. Sabotinov, B. Ivanov and L. Lyutov, “Strontium bromide vapor laser excited by a nanosecond pulsed longitudinal discharge”, in *Proceedings of SPIE*, **6604**, art. No. 660410, 5 pages, 2007. (Scopus-SJR; ISSN: 027-786X):

87. I. P. Iliev and S. G. Gocheva-Ilieva, “Modeling and simulation of output power of a high-power He–SrBr₂ laser by using multivariate adaptive regression splines” *Optics & Laser Technology*, **45**, pp. 461–468, 2013. (ISSN:0030-3992)
88. I. P. Iliev, “Temperature Analysis for Designing a New High- Powered Strontium Bromide Laser”, *International Journal of Scientific & Technology Research*, **2(2)**, 2013. (ISSN 2277-8616)
89. I. P. Iliev and S. G. Gocheva-Ilieva, “Self-consistent analytical model of the radial temperature profile of a high-powered He–SrBr₂ laser”, *Optical and Quantum Electronics*, **4(8)**, p. 397, 2016. (ISSN: 0306-8919)
90. I. P. Iliev and S. G. Gocheva-Ilieva, “Optimization of the temperature profile of a high-powered strontium bromide laser”, *Electrical Engineering*, **100(3)**, pp. 1537-1544, 2018. (ISSN: 0948-7921)

K. A. Temelkov, N. K Vuchkov, R P Ekov, N V Sabotinov, “Determination of characteristic constants for some basic processes in plasma – diffusion, Penning ionization, asymmetric charge transfer”, *Journal of Physics D: Applied Physics*, **41**, art. No. 105203 (7pp), 2008. (Q1 om WoS; ISSN: 0022-3727):

91. I. Korolov, G. Bánó, Z. Donkó, A. Derzsi, P. Hartmann, “Experimental study of the asymmetric charge transfer reaction between Ar⁺ ions and Fe atoms, *THE JOURNAL OF CHEMICAL PHYSICS*, **134**, art. No. 064308, 2011. (ISSN: 0021-9606)
92. I. Korolov, G. Bánó, Z. Donkó, "Experimental investigation of the asymmetric charge exchange reaction in the Ar⁺-Ni system in the afterglow of a pulsed glow discharge”, *Spectrochimica Acta – Part B Atomic Spectroscopy*, **66 (9-10)**, pp. 706 – 711, 2011. (ISSN:0584-0547)
93. F. A. Mangi, B. J. Simons, D. A. Jamro, N. A. Shaikh, G. A. Mallah, “Medical Application of Output Intensity Characterization of Red He-Ne Laser”, *International Journal of Scientific & Engineering Research*, **5(10)**, p. 332, 2014. (ISSN 2229-5518 IJSER © 2014 <http://www.ijser.org>)
94. Z. Weiss, E. B. M. Steers, J. C. Pickering, “Transition rates and transition rate diagrams in atomic emission spectroscopy: A review”, *Spectrochimica Acta – Part B Atomic Spectroscopy*, **110(1)**, pp. 9–90, 2015. (ISSN:0584-0547)
95. V. Garofano, F. Montpetit, X. Glad, R. K. Gangwar, L. Stafford, “Experiments and kinetic modeling of the ion energy distribution function at the substrate surface during magnetron sputtering of silver targets in radio frequency argon plasmas”, *Journal of Vacuum Science & Technology A*, **37**, art. No. 021301, 2019. (ISSN: 0734-2101)

K. A. Temelkov, N. K. Vuchkov, B. Mao, E. P. Atanassov, L. Lyutov, N. V. Sabotinov, “High-power Sr atom laser excited in nanosecond pulsed longitudinal He-SrBr₂ discharge”, *IEEE Journal of Quantum Electronics*, **45(3)**, pp.278-281, 2009. (Q1 om WoS; ISSN:0018-9197):

96. L. Chen, B.-L. Pan, Y.-J. Wang, Q. Zhu and X.-Y. Zhang, “Characteristics of laser and current pulses in a He–SrCl₂ vapor laser”, *Applied Physics B: Lasers and Optics*, **98(2-3)**, pp. 507-510, 2010. (ISSN: 0946-2171)
97. I. P. Iliev and S. G. Gocheva-Ilieva, “Modeling and simulation of output power of a high-power He–SrBr₂ laser by using multivariate adaptive regression splines” *Optics & Laser Technology*, **45**, pp. 461–468, 2013. (ISSN:0030-3992)
98. I. P. Iliev, “Temperature Analysis for Designing a New High- Powered Strontium Bromide Laser”, *International Journal of Scientific & Technology Research*, **2(2)**, 2013. (ISSN 2277-8616)
99. I. P. Iliev and S. G. Gocheva-Ilieva, “Self-consistent analytical model of the radial temperature profile of a high-powered He–SrBr₂ laser”, *Optical and Quantum Electronics*, **4(8)**, p. 397, 2016. (ISSN: 0306-8919)
100. I. P. Iliev and S. G. Gocheva-Ilieva, “Optimization of the temperature profile of a high-powered strontium bromide laser”, *Electrical Engineering*, **100(3)**, pp. 1537-1544, 2018. (ISSN: 0948-7921)

*K. A. Temelkov, N. K. Vuchkov, I. Freijo-Martin, A. Lemal, L. Lyutov, N. V. Sabotinov, “Experimental study on the spectral and spatial characteristics of a high-power He–SrBr₂ laser”, *Journal of Physics D: Applied Physics*, **42**, art. No. 115105, 2009. (Q1 om WoS; ISSN:0022-3727):*

101. L. Chen, B.-L. Pan, Y.-J. Wang, Q. Zhu and X.-Y. Zhang, “Characteristics of laser and current pulses in a He–SrCl₂ vapor laser”, *Applied Physics B: Lasers and Optics*, **98(2-3)**, pp. 507-510, 2010. (ISSN: 0946-2171)
102. D. A. Bochkovskii, A. V. Vasil’eva, G. G. Matvienko, Yu. P. Polunin, O. A. Romanovskii, A. N. Soldatov, O. V. Kharchenko, N. A. Yudin, S. V. Yakovlev, “Application of a strontium vapor laser to laser remote sounding of atmospheric composition”, *Atmospheric and Oceanic Optics*, **25(2)**, 2012. (ISSN: 1024-8560)
103. I. P. Iliev and S. G. Gocheva-Ilieva, “Modeling and simulation of output power of a high-power He–SrBr₂ laser by using multivariate adaptive regression splines” *Optics & Laser Technology*, **45**, pp. 461–468, 2013. (ISSN:0030-3992)
104. I. P. Iliev, “Temperature Analysis for Designing a New High- Powered Strontium Bromide Laser”, *International Journal of Scientific & Technology Research*, **2(2)**, 2013. (ISSN 2277-8616)
105. M. Fan, T. Li, S. Zhao, G. Li, H. Ma, X. Gao, G. Huber, “Watt-level passively Q-switched Er:Lu₂O₃ laser at 2.84 μm using MoS₂”, *Optics letters*, **41(3)**, pp. 540-543, 2016. (ISSN: 0146-9592)
106. I. P. Iliev and S. G. Gocheva-Ilieva, “Self-consistent analytical model of the radial temperature profile of a high-powered He–SrBr₂ laser”, *Optical and Quantum Electronics*, **4(8)**, p. 397, 2016. (ISSN: 0306-8919)
107. I. P. Iliev and S. G. Gocheva-Ilieva, “Optimization of the temperature profile of a high-powered strontium bromide laser”, *Electrical Engineering*, **100(3)**, pp. 1537-1544, 2018. (ISSN: 0948-7921)
108. Y. Liang, T. Li, J. Zhao, W. Qiao, G. Li, T. Feng, S. Zhang, S. Zhao, “Nano-second pulsed Er:Lu₂O₃ laser using molybdenum ditelluride saturable absorber”, *Optics & Laser Technology*, **121**, art. No. 105791, 2020. (ISSN:0030-3992)

*J. Mouchovski, K. Temelkov, N. Vuchkov, and N. Sabotinov, “Calcium strontium fluoride crystals with different composition for UV-Laser application. Control of the growing rate and optical properties,” *Comptes Rendus de L’Académie Bulgare des Sciences*, **62(6)**, pp. 687–694, 2009:*

109. S. Gocheva-Ilieva and I. Iliev, "Modeling and Prediction of Laser Generation in UV Copper Bromide Laser via MARS", Mathematics and Computers in Science and Engineering, Proceedings of the 2nd WSEAS International Conference on Nanotechnology, UK, pp. 166-171, 2010. (ISBN-ISSN: 1790-5117, 978-960-474-163-2)

K. A. Temelkov, N. K. Vuchkov, I. Freijo-Martin, R. P. Ekov, "Theoretical and experimental determination of gas and electron temperatures for gas discharges in Ne and He mixtures with copper, bromine, hydrogen and strontium", Journal of Physics D: Applied Physics. **43**, art. No. 075206 (8pp) 2010. (Q2 om WoS; ISSN:0022-3727):

110. S. A. Salo and S. Haddad, "Transport coefficients and electron energy probability function in Ar-He 13.56 MHz hollow cathode discharge", Vacuum, **113**, pp. 1-45, 2015. (ISSN: 0042-207X)

N. K. Vuchkov, K. A. Temelkov, N. V. Sabotinov, "Sr and SrBr₂ vapour lasers in nanosecond pulsed longitudinal discharge, oscillating on Sr atom and ion transitions", Физика, Известия высших учебных заведений, **5/2**, 2010:

111. A. N. Soldatov, N. A. Yudin, A. V. Vasilieva, E. A. Kolmakov, Yu. P. Polunin, I. D. Kostyrya, "Strontium vapour laser with a pulse repetition rate of up to 1 MHz", Quantum Electronics, **42**, p. 31, 2012. (ISSN: 1063-7818)

N. K. Vuchkov, K. A. Temelkov, N. V. Sabotinov, "Laser tube for strontium infrared laser with strontium halide vapors", reg. No 110175 from 02.07.2008, Published Applications for Inventions BG 1/2010:

112. I. P. Iliev and S. G. Gocheva-Ilieva, "Modeling and simulation of output power of a high-power He-SrBr₂ laser by using multivariate adaptive regression splines" Optics & Laser Technology, **45**, pp. 461-468, 2013. (ISSN:0030-3992)

J. T. Mouchovski, K. A. Temelkov, N. K. Vuchkov, "The growth of mixed alkaline-earth fluorides for laser host applications", Progress in Crystal Growth and Characterization of Materials, **57(1)**, pp. 1-41, 2011. (Q1 om WoS; ISSN:0960-8974):

113. P. P. Fedorov and I. I. Buchinskaya, "Spatial inhomogeneity in crystalline materials and saddle-type congruent melting points in ternary systems, Russian Chemistry Review, **81**, 2012. (ISSN: 0036-021X)

114. W. Ye-Qing, S. Liang-Bi, X. Jun, C. Hong-Bing, Z. Li-He, W. Qing-Guo, "Spectroscopic and thermal properties of Yb doped CaF₂-SrF₂ laser crystal", Acta Physica Sinica, **61(17)**, art. No. 177801, 2012. (ISSN:1000-3290)

K. A. Temelkov, S. I. Slaveeva, N. K. Vuchkov, "Analytical calculation of gas temperature and experimental determination of electron temperature in gas discharge in Ne-He mixtures", IEEE Transactions on Plasma Science, **39(3)**, pp. 831-835, 2011. (Q3 om WoS; ISSN: 0093-3813):

115. F. A. Mangi, B. J. Simons, D. A. Jamro, N. A. Shaikh, G. A. Mallah, "Medical Application of Output Intensity Characterization of Red He-Ne Laser", International Journal of Scientific & Engineering Research, **5(10)**, p. 332, 2014. (ISSN 2229-5518 IJSER © 2014 <http://www.ijser.org>)

N. K. Vuchkov, K. A. Temelkov, N. V. Sabotinov, "Laser tube for strontium infrared laser with strontium halide vapour", BG Published Patent for Invention No. 66247, 2012:

116. I. P. Iliev and S. G. Gocheva-Ilieva, "Self-consistent analytical model of the radial temperature profile of a high-powered He–SrBr₂ laser", *Optical and Quantum Electronics*, **4(8)**, p. 397, 2016. (ISSN: 0306-8919)
117. I. P. Iliev and S. G. Gocheva-Ilieva, "Optimization of the temperature profile of a high-powered strontium bromide laser", *Electrical Engineering*, **100(3)**, pp. 1537-1544, 2018. (ISSN: 0948-7921)

K. A. Temelkov and N. K. Vuchkov, "A simple method for experimental determination of electron temperature and electron density in nanosecond pulsed longitudinal discharge used for excitation of high-power lasers", IEEE Transactions on Plasma Science, 42(12), pp. 3938-3941, 2014. (Q3 om WoS; ISSN: 0093-3813):

118. F. A. Mangi, B. J. Simons, D. A. Jamro, N. A. Shaikh, G. A. Mallah, "Medical Application of Output Intensity Characterization of Red He-Ne Laser", *International Journal of Scientific & Engineering Research*, **5(10)**, p. 332, 2014. (ISSN 2229-5518 IJSER © 2014 <http://www.ijser.org>)