

Vania Vassileva Ivanova - Assoc. Prof. , PhD

Affiliation: Institute of electronics, Bulgarian Academy of Sciences,
Laboratory "Physical problems of the electron beam technologies"

Education: University of Chemical Technology and Metallurgy-Sofia, metallurgy engineer - 1976;
Institute of electronics -BAS, PhD in Physics - 1988;
Institute of electronics -BAS, research officer - 1987;

Academic positions:

Institute of electronics -BAS,
Associated professor in "Metallurgy of high purity metals and special alloys", since 2005;

Main research area and subareas:

Vacuum technologies and techniques;
Electron beam melting and refining of metals and alloys;
Refining kinetics;
Scrap metal recycling;

Additional research areas and subareas:

Special electrometallurgy;
Crystallization of metals and alloys;
Methods for obtaining of pure metals;
New materials;

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Total number of scientific publications: 87

From them with impact factor or impact rang: 11

Number of citations of the scientific publications: 74

H индекс (снoped Scopus или Web of Science): 5

Selected scientific publications:

- 1.K.Vutova, V.Vassileva, E.Koleva, G.Mladenov, E.Georgieva, “*Titanium regeneration from waste product*”, Proc. of the International Conference ”Ti-2009”, 17-20 May 2009, Odessa, Ukraine,2009, 74-79.
2. K.Vutova, V.Vassileva, E.Koleva, E.Georgieva, G.Mladenov, D.Mollov, M.Kardjiev, “*Investigation of electron beam melting and refining of Ti and Ta scrap*”, J. Electronics and Electrical Engineering, 5-6, 2009, 252-259.
3. E.Koleva, G.Mladenov, V.Vassileva, K.Vutova, “*Development of an engineering support system for modeling and control of the processes of EBMR of metals*”, Annual Report 2008, Institute of electronics, BAS,2009, 83-93.
4. E. Koleva, V. Vassileva, K. Vutova, G. Mladenov, K. Velev , “*Analysis of Inclusions Removal for the Quality Control at EBMR of Ti and Cu*” – Proc. “ebeam 2008”, 26-28 October, 2009, Reno, USA (electronic).
5. K.Vutova, V.Vassileva, E.Koleva, E. Georgieva, G.Mladenov, D.Mollov, M.Kardjiev, “*Investigation of Electron Beam Melting and Refining of Titanium and Tantalum Scrap*”, Journal of Materials Processing Technology, 210, (2010), 1089-1094.
6. E.Koleva, G.Mladenov, I.Batchkova, K.Velev, V.Vassileva, K.Vutova, “*Quality control of refining process at electron beam melting and development and implementation of engineering support system for process modeling and control*”, Supplemental Proceedings:v.3: General Paper Selections TMS (The Minerals, Metals&Materials Society), 14-18 Febr. 2010, Seattle, USA, 2010, 777-784.
7. K.Vutova, E.Koleva, V.Vassileva, G.Mladenov, “*Surface modification of reactive metals by electron beam surface melting*”, Proc. of 16th International SHCE and 10th International CMM, 19-24 September 2010, Tomsk, Russia, 2010, 302-304.
8. K.Vutova, V.Vassileva, G.Mladenov, E.Koleva, T.Prakash, N.Munirathnam, “*Electron beam melting and recycling of hafnium*”, Supplemental Proceedings: v.3: General Paper Selections TMS, Wiley, USA,2011,725-732.
9. K.Vutova, V.Vassileva, G.Mladenov, E.Koleva, “*New material fabrication by electron-beam melting of wastes of titanium, hafnium and tantalum*”, Annual Report 2010, Institute of electronics,BAS, 2011, 84-92.
10. K.Vutova, V.Vassileva, G.Mladenov, V.Donchev, “*Thermal transfer process through treated metal regenerated by electron beam melting and refining*”, 1st International Central and Eastern European Conference on Thermal Analysis and Calorimetry, 2011, 265.

11. G.Mladenov, E.Koleva, K.Vutova, V.Vassileva, "Experimental and theoretical studies of electron beam melting and refining", Chapter in a special review book "Practical Aspects and Applications of Electron Beam Irradiation", eds.: M.Nemtanu, M.Brasoveanu, publ. Research Signpost/Transworld Research Network, 2011, 43-93.
12. V.Vassileva, K.Vutova, E.Koleva, G.Mladenov, "Recycling of Hf and Ta wastesutilizing electron beam melting in vacuum", J. Electronics and Electrical Engineering, 11-12, 2011, 43-52.
13. V.Vassileva, K.Vutova, G.Mladenov, E.Koleva, "Investigation of tantalum recycling by electron beam melting method", Proc. Int. Conf. Eng., Techn. & Systems, 2011, 263-268.
14. V.Vassileva, K.Vutova, V.Donchev, "Recycling of alloy steel by electron beam melting", Proc. of 10-th Intern. Conf. EBT'12, Varna, J. Electronics and Electrical Engineering, Vol.47, N5-6, 2012, 285-291.
15. V.Donchev, M. Oane, K.Vutova, I. N.Mihailescu, V.Vassileva, E.Koleva, G.Mladenov, D.Toader, "Heat transfer study based on time-dependent mathematical model and experimental data at EBMR of Ta", Proc. of 10-th Intern. Conf. EBT'12, Varna, J. Electronics and Electrical Engineering, Vol.47, N 5-6 ,2012, 280-284.
16. K.Vutova, V.Donchev, V.Vassileva, G.Mladenov, "Influence of process and Thermo – physical parameters on the heat transfer at electron beam melting of Cu and Ta", Supplemental Proceedings: v.1: Materials Processing and Interfaces, TMS 2012, Wiley, USA, 2012, 125-132.
17. K.Vutova, V.Donchev, V.Vassileva, G.Mladenov, „Thermal transfer process through treated metal regenerated by electron beam melting and refining”, Journal Metal Science and Heat Treatment, 11 (701), 2013, 53-60.
18. K.Vutova, V.Donchev, V.Vassileva, E.Koleva, G.Mladenov, "Investigation of electron beam drip melting by a time-dependent heat model", Proceedings of the International Conference on High-Power Electron Beam Technology "Ebeam 2012", October 14-16, 2012, Reno, Nevada, USA, 2013, 35-41.
19. E.Koleva, V.Vassileva, D.Mollov, K.Vutova, G.Mladenov, "Model-Based Approach for Quality Optimization of EBMR Process of Ta", Proc. of the International Conf. "ebeam2012", October 14-16, 2012, Reno, Nevada, USA,2013,16-22.
20. V.Vassileva, K.Vutova, "Criteria for refining of Hafnium scrap using electron beam melting", Proc. Int. Conf. Eng., Techn. & Systems, 2013, 281-286.
21. Вутова К., Младенов Г., Василева В., Колева Е., Георгиев Й., Бешкова М., Дончев В., „Наноелектроника, нови материали и технологии” Списание на БАН, 6,2013, 55-69.
22. Donchev V., Vutova K., Vassileva V., "Experimental and numerical investigation of the refinement of Hf by EBM", 18th International Summer School on Vacuum, Electron and Ion Technologies, IOP Publishing, Journal of Physics: Conference Series, v.514 (2014), 012047, doi:10.1088/1742-6596/514/1/012047
23. K.Vutova, V.Donchev, V.Vassileva, G.Mladenov, „Thermal processes in electron-beam treatment of metals”, Metal Science and Heat Treatment, v.55, iss.11-12, 2014, 628-635.
24. K.Vutova, V.Vassileva, A.Stoimenov, E.Koleva, T.Ivanova, G.Bodurov, K.Gesheva, G.Mladenov, "Optical and structural investigation of WO_x films, deposited by electron beam evaporation process", Journal Electronics and Electrical Engineering, Vol.49, N 5-6, 2014,226-230.
25. V.Vassileva, K. Vutova, V. Donchev, A. Stoimenov, D. Amalnerkar, N. Munirathnam, "Electron beam melting and recycling of Nickel", Journal Electronics and Electrical Engineering, Vol.49, N 5-6, 2014, 138-143).
26. V. Vassileva , K. Vutova, M. Naplataanova, "Pure tungsten obtaining by electron beam refining of tungsten scrap", Proc. 4th Int. Conf. Eng. Techn. & Systems TECHSYS 2015, (Journal of the Technical University–Sofia Plovdiv branch), 2015, 31-36.
27. V.Vassileva, K. Vutova, "Electron beam melting and refining – another possibility for recycling of metal scrap", Proc. Int. Sci. Conf. "High Technologies, Business, Society – 2016", Borovets, Bulgaria, v.1, 2016, 55-58.
28. V. Vassileva , K. Vutova, M. Naplataanova, N. Munirathnam, D. Amalnerkar, "Obtaining of pure molybdenum through electron beam melting of scrap materials", Journal Electronics and Electrical Engineering, Vol.51, N 5-6, 2016,304-308.
29. K. Vutova, V. Vassileva , "Obtaining multiple metals through electron beam melting of refractory metal wastes", EPD Congress 2016 Edited by: Antoine Allanore, Laura Bartlett, Cong Wang, Lifeng Zhang, and Jonghyun Lee TMS (The Minerals, Metals & Materials Society), 2016, 89-96.
- 30.K.Vutova, V.Vassileva, E. Koleva, N.Munirathnam, D.Amalnerkar, T.Tanaka, "Investigation of tantalum recycling by electron beam melting", J.Metals (2016), 6(11), 287 , IF = 1,574
- 31.V.Vassileva, K.Vutova, M.Naplataanova, N. Munirathnam, D.Amalnerkar, "Obtaining of Pure Molybdenum through Electron Beam Melting of Scrap Materials", J. "Electrotechnica&Electronica"5-6/ 2016 (2016), 304-308, ISSN: 0861-4717
32. K.Vutova, V.Vassileva, M.Naplataanova, T.Tanaka, "Refining effect of electron beam melting on recycling of nickel wastes", accepted for publ.in IEEE Proc. 40th Int. Spring Seminar on Electronics Technology „High-Tech Electronics for a Better Tomorrow – Theoretical and Practical Aspects“, ISSE 2017, (2017).

Participation in projects: 20

Projects in the last five years: 5