

XVI International Chinese-Russian Symposium
NEW MATERIALS AND TECHNOLOGIES

Information about the young scientist

Full name: Podusovskaia (Demidova) Nadezhda Vladimirovna

Main workplace: Baikov Institute of Metallurgy and Materials Science, Russian Academy of Sciences (IMET RAS)

Department: Materials diagnostic laboratory (№17)

Current position: Junior research assistant

Additionally: The journal «Metals» («Russian Metallurgy (Metally)») editorial office participant.

Part-time workplace: National University of Science and Technology «MISIS» (NUST MISIS)

Department: The metallurgy of steel, new production technologies and protection of metals department

Current position: department assistant

Education:

2013–2017 – NUST MISIS, awarded a bachelor's degree in the direction of 22.03.02 «Metallurgy» (diploma with honors);

2017–2019 – NUST MISIS, awarded a master's degree in the direction of 22.04.02 «Metallurgy» (diploma with honors);

2019–2023 – NUST MISIS, awarded the degree of researcher and teacher-researcher in the direction of 22.06.01 «Materials Technologies».

Research interests and field of activity: ferrous metallurgy, processing of ferrous metallurgy technogenic waste.

According to the results of scientific work, 12 publications have been published, among them 5 articles in publications included in the Web of Science, Scopus databases; 4 articles in publications included in the recommended list of the Higher Attestation Commission of the Russian Federation and 6 publications in RSCI publications. Received 1 patent.

1. Simonyan L.M., Alpatova A.A., Demidova N.V. (Podusovskaia N.V.). The EAF dust chemical and phase composition research techniques // JMR&T. 2019. № 2, pp. 1600–1607. DOI: <https://doi.org/10.1016/j.jmrt.2018.11.005>

2. Simonyan L.M., Demidova N.V. (Podusovskaia N.V.). Origins and behavior of dioxins and furans in zinc-bearing dust // Steel in translation. 2019. Vol. 49. № 7, pp. 454–459. DOI: <https://doi.org/10.17073/0368-0797-2019-7-557-563>

3. Simonyan L.M., Demidova N.V. (Podusovskaia N.V.). Study of the behavior of dioxins and furans in the zinc and lead removal process from EAF dust // Steel in Translation. – 2019. Vol. 49. № 11, pp. 727–731. DOI: <https://doi.org/10.17073/0368-0797-2019-11-840-845>

4. L.M. Simonyan, N.V. Demidova (Podusovskaia N.V.). Carbon-free selective extraction of zinc and lead from EAF-dust // Steel in Translation. 2020. Vol. 50. № 8, pp. 531–536. DOI: <https://doi.org/10.17073/0368-0797-2020-8-631-638>

5. Podusovskaia N.V., Komolova O.A., Grigorovich K.V., Pavlov A.V., Aksenova V.V., Rumyantsev B.A., Zheleznyi M.V. Study of lead and zinc selective extraction from EAF dust while heating in resistance furnace with flowing argon. // Steel in Translation. – 2023. Vol. 53. № 3, pp. 344–355 DOI: <https://doi.org/10.17073/0368-0797-2023-3-344-355>

6. Chlorine in metallurgical dust: receipt sources and behavior / Demidova N.V. (Podusovskaia N.V.), Simonyan L.M. // Collection of works 15 Interd. Congress of Steelmakers. Tula, 2018. pp. 499–505.

7. The dioxins and furans behavior in the zinc and lead removal process from EAF dust / Demidova N.V. (Podusovskaia N.V.), Simonyan L.M. // In the collection: XXI Mendeleev Congress on General and Applied Chemistry. in 6 t. T3: tez. dokl. St. Petersburg, 2019. p. 58.

8. The dioxins and furans behavior in the zinc and lead removal process from the dust of electric steelmaking production / Demidova N.V. (Podusovskaia N.V.), Simonyan L.M. // In the collection: International scientific Conference «Physico-chemical bases of metallurgical processes» named after Academician A.M. Samarin. Moscow, 2019. p. 34.

9. Investigation of the zinc and lead carbon-free selective extraction process from the dust of electric steelmaking / Podusovskaia N.V., Simonyan L.M. // In the collection: Fundamental research and applied development of technogenic formations processing and utilization processes. Proceedings of the V Congress with international participation and the conference of young scientists «Technogen–2021». Yekaterinburg, 2021. pp. 165–167. DOI: [10.34923/technogen-ural.2021.29.79.051](https://doi.org/10.34923/technogen-ural.2021.29.79.051)

10. Investigation of the zinc and lead selective extraction process from EAF dust / Podusovskaia N.V., Komolova O.A., Grigorovich K.V., Simonyan L.M., Pavlov A.V., Aksenova V.V., Rumyantsev B.A., Zheleznyi M.V. // In the collection: International scientific conference «Physico-chemical fundamentals of metallurgical processes» named after Academician A.M. Samarin. Vyksa. 2022. pp. 419–423.

11. Investigation of the lead- and zinc-containing phases selective reduction possibility

from EAF dust/ Podusovskaia N.V., Komolova O.A., Grigorovich K.V. // In the collection: Fundamental research and applied development of technogenic formations processing and utilization processes. Proceedings of the VI Congress with international participation and the conference of young scientists «Technogen–2023». Yekaterinburg, 2023.

12. RU 2710250, МПК7 C22B 7/02, F27B 17/00 Method of zinc and lead carbon-free selective extraction from the electric steelmaking dust and the device for its implementation / Simonyan L.M., Demidova N.V. (Podusovskaia N.V.); applicant and patent holder NUST MISIS – No. 2019123309; application 24.07.2019; publ. 25.12.2019, Bul. No. 36-10 p.

Achievements:

The grant under the «UMNIK» program of the Innovation Promotion Foundation (2018–2020) was successfully completed.

Winner of the «Young Scientists» competition of the International Industrial Exhibition «Metal-Expo» (2017, 2018, Moscow); the 2nd degree diploma holder of the «Young Scientists» competition of the International Congress of Steelmakers (2018, Tula); the «Best Report» diploma holder of the International Scientific Conference «Physicochemical bases of metallurgical processes», named after IMET RAS Academician A.M. Samarin (2019, Vyksa: 2022, Moscow).

Pedagogical and educational activities:

At NUST MISIS I conduct classes in disciplines: «Steel production in converters», «Theory and technology of steel production in electric furnaces», «Environmental expertise», «Environmental impact assessment». I carry out educational-methodological work.

Цифровые идентификаторы в информационных базах данных:

Scopus Author ID: 57206480355

WofS ResearcherID: AEE-9207-2021

ORCID: 0000-0002-4124-0444

RSCI AuthorID: 909004