Project name, IRN	AP22783247 – Study of the metallothermic process of nickel reduction and smelting of nickel ferroalloys using silicon-, aluminum containing reducing agents.
Completion date	01.06.2024-31.12.2026
Project supervisor	Yessengaliyev Dauren, PhD, associated professor
Report	In this project, to assess the possibility of smelting nickel ferroalloys from local nickel ores, it is planned to study and develop an energy–saving technology for producing nickel ferroalloys from domestic nickel ores by metallothermic method, i.e. using silicon and aluminum-containing alloys as a reducing agent. Alternative technologies for obtaining these alloys were previously developed, but laconic results were not achieved. The realization of the project will allow achieving a high extraction of nickel from ore in the order of 10-15% compared to the traditional technology for producing nickel ferroalloys due to the metallothermic recovery process, which will ensure the competitiveness of the project's scientific team.
Purpose	Study and development of energy-saving technology for obtaining nickel ferroalloys from local nickel ores by metallothermic method.
Expected results	Development of technology for smelting nickel ferroalloys from the local nickel ores by metallothermic method.
Research group	Supervisor – Main researcher: Yessengaliyev Dauren, PhD, associated professor, H index = 4 (Author ID в Scopus – 57211288181; Researcher ID - AAA-9581-2020; ORCID - 0000-0003-0792-0822). https://www.scopus.com/authid/detail.uri?authorId=57211288181 Zhuniskaliyev Talgat PhD, H index = 4 (Author ID в Scopus – 57218196497; Researcher ID - AAG-6131-2021; ORCID - 0000-0001-9757-0605). https://www.scopus.com/authid/detail.uri?authorId=57218196497 Kelamanov Baurzhan, Candidate of Technical Sciences, H index = 9 (Author ID в Scopus – 25655181100; Researcher ID - ABE-5597-2021; ORCID - 0000-0001-7646-9153). https://www.scopus.com/authid/detail.uri?authorId=25655181100 Mikhailova Lyudmila, H index = 4 (Author ID в Scopus – 57219698304; Researcher ID - AAB-7972-2022; ORCID - 0009-0004-6906-9142). https://www.scopus.com/authid/detail.uri?authorId=57219698304 Kuatbai Yerbol, PhD, H index = 5 (Author ID в Scopus – 57218196966; Researcher ID - ABE-5679-2021; ORCID - 0000-0002-8400-3537). https://www.scopus.com/authid/detail.uri?authorId=57218196966 Sarkulova Zhadyrassyn H index = 2 (Author ID в Scopus – 57212139272; Researcher ID - HNX-2137-2023; ORCID - 0000-0001-8539-1802).

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	55588115900; ORCID - 0000-0001-9540-6334). https://www.scopus.com/authid/detail.uri?authorId=55588115900 Myasnikova Lyudmila, c.ph.-m.s., associated professor, H index=5 (Author ID в Scopus – 16481268100; Researcher ID - O-9697-2017; ORCID - 0000-0003-3326-7206). https://www.scopus.com/authid/detail.uri?authorId=16481268100 Sergeyev Daulet, c.ph.-m.s., professor, H index=8 (Author ID в Scopus – 55237792800; Researcher ID - O-3783-2017; ORCID - 0000-0001-7426-3039). https://www.scopus.com/authid/detail.uri?authorId=55237792800 Aimaganbetova Zukhra, PhD, H index=5 (Author ID in Scopus – 56305678700). https://www.scopus.com/authid/detail.uri?authorId=56305678700 Saryev Otegen – c.t.s., Assoc professor, Hirsch index h = 4 (Author ID in Scopus - 55355882800) https://www.scopus.com/authid/detail.uri?authorId=55355882800 Tadeusz Liesnewski –PhD, University of Gdansk (Gdansk, Poland), Institute of experimental physics, H-index -15 (Author ID in Scopus – 57073704100). https://www.scopus.com/authid/detail.uri?authorId=57073704100 Assel Istlyaup – PhD Student, H-index -1 (Author ID in Scopus – 57211115630). https://www.scopus.com/authid/detail.uri?authorId=57211115630
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