ABSTRACT

Technology of Manufacturing Expendable Electrodes from Heat-Resistant Alloy Chips by ESR Method

Thesis consists of introduction, three chapters, conclusions and list of sources used (21). Full volume of work is 84 pages, including 13 figures and 11 tables.

The research subject: consumable electrodes and the technology long electrodes by chip high-temperature alloy.

The aim: to develop an effective technology for high-qualit[y] and economical long billets with stable physical and mechanical properties along the entire length of the dispersed metallic materials for their further involvement in metal – circulation as a consumable electrode.

Equipment: pilot plant combined pressing of disperse materials electroslag unit (Type A-550).

Results: The developed technology through a combination of direct heating by electric shock batch processes and little effort pressing enough to effectively solve the problem of quality of long, blank compact ([el]ectrodes), high density and strength. This technology makes it possible to obtain a solid billet cross section, and hollow. Size from the electrodes is: diameter 100 mm, length 1000 mm.

She took part in the development of technology compacting high-temperature alloys in combination with heating electric shock.

Keywords: *chips, pressing, heating electric shock, consumable electrode, electroslag remeltig.*