

1. **I.A. Dibrov.** About the XIII International Congress of Foundrymen and the International Exhibition «Casting — 2017» on September 19—21, 2017 in Chelyabinsk



2. **B.A. Kulakov.** 60th Anniversary of South Ural foundry school.

The article presents the historical data of «Foundry production » Department creation and its achievements in the training of highly qualified engineers and scientists. Scientific developments of the Department are shown.

3. **A.A. Ganeev, O.B. Demenok, S.P. Pavlinich, V.V. Smirnov, B.A. Kulakov.** Core mixture for hollow blades

Core mixture for the production of blades was proposed and tested in production conditions. It is shown that the new composition of the core mixture has higher physical and mechanical properties, less tendency to warping, shrinkage and a low coefficient of thermal expansion.

Key words: Core mixture, refractory materials, mechanical properties.

4. **V.I. Nikitin, K.V. Nikitin.** About the concept of development of aluminum casting production.

The analysis of problems in the production of aluminum castings in Russia is presented. The goals and objectives of the concept for the development of aluminum casting production, as well as practical and scientific solutions are set out.

Key words: aluminum casting production, development concept, aluminum alloy castings, quality, yield of a usable, metal utilization factor.

5. **Ri Khosen, E.D. Kim, V.V. Gostischev, S.N. Khimukhin, M.A. Ermakov.** Obtaining the ligature with scheelite concentrate with additives of vanadium, chromium, molybdenum oxides.

A complex ligature has been developed during aluminothermic joint recovery of scheelite concentrate and vanadium, chromium, and molybdenum oxides. The obtained ligature makes it possible to improve the properties of alloyed alloys.

Key words: Ligature, alloyed alloys.

6. **S.A. Tivolzhanskiy. Metallurgical aspects of the process of continuous up-casting process of small-section blanks made of copper alloys.**

A method for the continuous casting of wires, rods, tubes, belts, strips and other semi-finished products made of copper and copper alloys has been developed. The advantages of the method when pulling the billet upwards out of the crystallizer are shown.

Key words: Billet, crystallizer.

7. **I.A. Gruzdeva. Modern technologies in jewelry making.**

The article gives an example of the application of 3D printing in the manufacture of models of future jewelry and finished products made of precious metal alloys. The application of additive technologies in jewelry making is shown.

Key words: 3D printing, additive technologies.

8. **O.A. Broitman, D.S. Babkov, S.A. Belozyorov, A.I. Petrov, M.A. Ioffe. Study of process of sand cores properties Formation.**

The results of research of processes of sand mixtures blowing in core boxes with application of software package Flow-3D and numerical modeling for optimization of core box design are shown in the article. The proposed forecast of the quality and density of the cores and molds can also be used when calculating the formation of castings in sand molds with an uneven structure.

Key words: Core box, cores density.

9. **Ceremonial opening of the workshop for the production of non-stick coatings Uralchimplast — Huttenes-Albertus.**

