

1. **16th INTERNATIONAL ANNIVERSARY CONGRESS OF FOUNDRY WORKERS Moscow, June 22—23, 2022.**
2. **V.D. Belov, A.Y. Titov, L.D. Miteva About the All-Russian Olympiad of Lyceum Students**
3. **L.G. Znamensky, O.V. Ivochkina, T.V. Stepanova, D.S. Pykhov. Precise casting in mullitized ceramic molds.**

Annotation. The technology of production of precision steel casting of complex-profile thin-walled products for the oil and gas complex is proposed. The compositions of a ceramic mixture with a domestic mullite-containing filler have been developed, the use of which provides improved physical and mechanical properties of ceramic molds and rods and improves the quality of precision steel castings, reducing the cost of their production.

Keywords: steel casting, precision, cost, quality, ceramic mixture, filler.

4. **R.I. Nurullin, N.V. Safonova, O.N. Rakhmatullina, E.V. Panfi lov, I.F. Khakimov, V.I. Martemyanov. Technology of manufacturing castings from alloy 18HGT in the serial production of steel casting for KAMAZ vehicles.**

Annotation. KAMAZ PJSC has developed a technology for producing castings with a guaranteed titanium content within the requirements of GOST 4543—2016 for 18HGT steel, which allows the manufacture of parts for responsible purposes with the necessary strength characteristics, good ductility and excellent weldability without fatigue cracks in the welds.

Keywords: steel, melting, alloying, pouring, 3D modeling.

5. **E.E. Dmitrieva, E.A. Silk, A.S. Yakovleva. Control and measuring equipment for foundry and metallurgical industries**

Annotation. A list of thermometers for foundry and metallurgical industries is proposed. The organization produces devices based on new electronic components with new functionality: saving measurement results; fixing the date and time of measurement; the ability to transfer data to a PC for further processing or archiving.

Keywords: instruments, temperature, thermal measurement, thermocouple.

6. **E.V. Panfi lov, A.V. Efremov, I.F. Khakimov, V.I. Martemyanov, R.I. Mukhamadeev. Improving the quality of casting of particularly critical body castings of fuel equipment of KAMAZ vehicles with the use of methods of three-dimensional modeling.**

Annotation. The technology of production of body castings of fuel equipment for the KAMAZ car is considered. In the process of working out the technology for improving the quality of castings, changes were made to the gate-feeding system and the casting design. A technological process for improving the quality of castings has been developed.

Keywords: body casting, gating system, modeling