

1. **V.A. Grachev. Development and experience in implementation of gas cupolas in foundry**

The dynamics of development of cast iron melting in gas cupolas is shown in this article. Various design of cupolas, developed by author of the article together with Penza specialist school, are considered. The advantages of cast iron melting in gas cupolas comparing to melting in coke cupolas are provided.

Key words: gas cupolas, coke cupolas, cast iron melting.

2. **I. Melnikov. Three Seiatsu automated molding lines (fl ask and fl askless) by HWS-Sinto (Germany) at the foundry of KASI/the Czech Republic.**

The article describes the experience of KASI foundry on creation of effective pig-iron castings production, including modern manhole cover castings. Aspects of technology, advantage of casting production using the most advanced molding Seiatsu equipment (green sand) as well as automated molding lines for fl ask and fl askless molds (incl. round) are described.

Key words: import substitution of castings, modernization, innovations, effective foundry production, fl ask and fl askless moldinglines, Seiatsu-process

3. **V.A. Golubtsov, S.I. Sumin. Ladle treatment of liquid steel melt for improvement of castings quality**

The importance and necessity of ladle treatment methods for steel in order to improve castings quality are shown. Different methods of ladle treatment are discussed in this article: application of ladlefurnace unit, modification by different modifiers including microcrystalline ones, thermal treatment, etc. It is shown, that correct choice of ladle treatment method enhances technical and economic parameters during production of steel castings.

Key words: steel casting, ladle-furnace unit, cored wire, metal finishing installation, mechanical properties, microcrystalline modifiers M.A. Sadocha. Gas refining of aluminum alloys.

4. **M.A. Sadocha. Gas refining of aluminum alloys.**

The results of study and theoretical foundation of aluminum alloys refining by its blowing by active (chlorine, chlorine-nitrogen) and neutral (argon, nitrogen) are given. Installation for gas blowing of melt is developed and proposed.

Key words: gas blowing, refining, nitrogen, chlorine, argon O. Neglinskiy. Elektric drive — new efficiency standart.

5. **O. Neglinskiy. Elektric drive — new efficiency standart.**

This paper presents a new vertical molding machine concept, 100% electrically operated. In it, it is also shown the production benefits, cost reductions and quality improvements after 6 months of real production in one foundry plant, producing safety automotive parts (in grey and ductile irons).

Key words: fl askless vertical green sand molding, electricity consumption, efficiency, mold quality.

6. **V.Y. Saprykin, R.D. Farisov. Study of strength characteristics of cores made by Cold-box-amin technology using sand from Balasheishiy field.**

The article provides the results of study of sand grain size influence on the quality of castings and strength characteristics of cores, made by Cold-box-amin process.

Key words: core, cold process, sand grain size.

7. **Y.A. Svinoroev. Development of new modern foundry binding materials based on domestic raw materials.**

The article explains, that it is possible to use domestic resource base for the development of modern foundry binders. The reasons hindering its active use are shown. Examples of the development of new binder materials based domestic raw materials are given.

Key words: binding materials, technical lignosulfonates, ecological indexes, binding capacity, casting mol

8. **Conference in St. Petersburg**