

Rezidualni elementi v železovih rudah, med aglomeracijo in v visoki peči Železarne Zenica (Rezime)

Z. Horgas,* M. Horgas*

V trajanju enega leta je bilo sistematično analiziranih nad 1100 vzorcev železovih rud, piritnih ogorkov, sintra in grodlja in določena je bila vsebnost bakra, arzena, antimona, svinca, cinka, niklja in kroma. V trajanju dveh mesecev so bili vsakodnevno odvzeti vzorci iz vsake pošiljke. V ostalih 10 mesecih je bilo vzorčevanje izvršeno na vsakih deset dni z izjemo piritnih ogorkov, ki so bili analizirani po pošiljkah. Določena je bila tudi količina rezidualov v približno 200 kontrolnih geoloških vzorcih železove rude vzetih iz nahajališč železove rude v rudnikih Vareš in Ljubija. Analizirano je bilo tudi manjše število vzorcev koksa, praha iz visokih peči, apna in blata iz Dorrovih zgoščevalcev.

Skrbno je bila preverjena točnost in ponovljivost analitskih metod. Določeni so bili izvori, variacije in razdelitev rezidualov med aglomeracijo in v visoki peči.

* MI Hasan Brkić, Zenica

Residuals in iron ores during agglomeration and in the blast furnace of Zenica iron works

In the period of one year over 1100 samples of iron ore, pyrite cinder, sinter and pig iron were systematically analysed on copper, arsenic, antimony, lead, zinc, tin, nickel and chromium. During two months samples were taken each day or from each delievery while during the rest ten months the sampling was carried out on each ten days except for pyrite cinder which was sampled and analysed lot by lot. The amount of residuals in approx. 200 control geologic samples of iron ore taken from deposits of iron mines Vareš and Ljubija was also determined. A lower number of samples of coke, blast furnace dust, lime and mudd from Dorr type sedimentation classifier was also examined.

The accuracy and reproductibility of the analytical methods utilised was thoroughly investigated. The sources, variations and distribution of residuals during agglomeration and in blast furnace were determined.