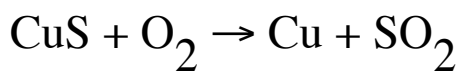
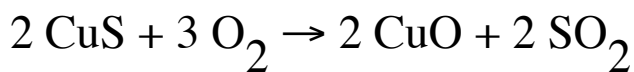
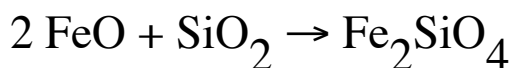
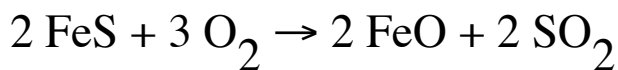


Converting

The matte, which is produced in the smelter, contains 30–70% copper (depending on the process used and the operating philosophy of the smelter), primarily as copper sulfide, as well as iron sulfide. The sulfur is removed at high temperature as sulfur dioxide by blowing air through molten matte:



In a parallel reaction the iron sulfide is converted to slag:



The purity of this product is 98%, it is known as *blister* because of the broken surface created by the escape of sulfur dioxide gas as blister copper *pigs* or [ingots](#) are cooled.

By-products generated in the process are sulfur dioxide and [slag](#). The sulfur dioxide is captured for use in earlier leaching processes.