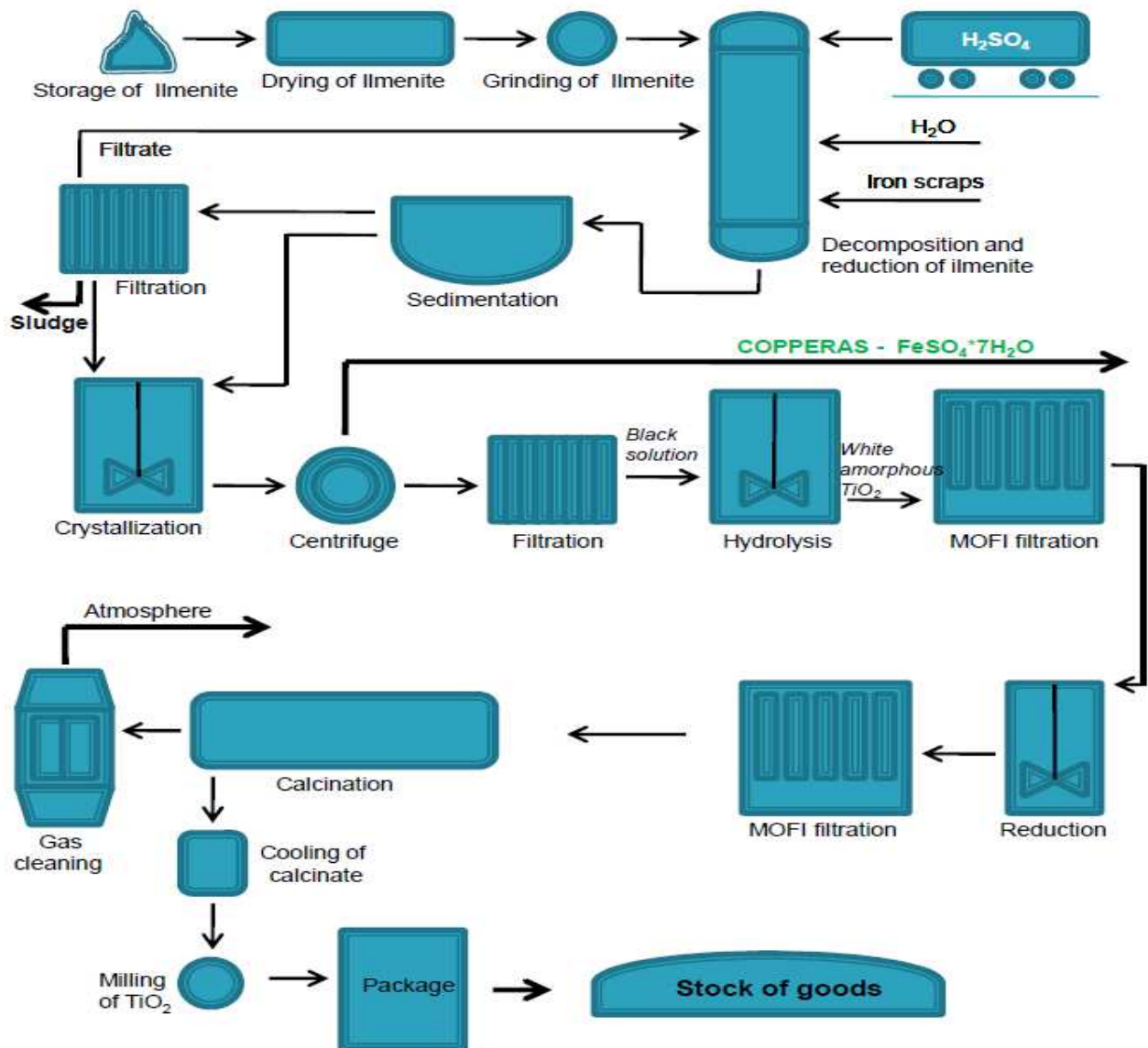


Titanium Dioxide FG production flowchart



Titanium dioxide FG is produced by sulphate process. There is used mineral Ilmenite as the raw material. Ilmenite, from the chemical point of view, is a mixture of oxides, above all of Titanium and Iron. Ilmenite is decomposed with concentrated Sulphuric acid. Mass after digestion is dissolved with water. The formed liquor is cooled down, what leads to liberating Iron as crystals of Copperas. The crystals are separated by means of centrifuges. After separating a main part of Iron the liquor is hydrolyzed. During this process Titanium Dioxide is liberated in the form of amorphous flakes. These flakes cannot be used as a pigment as they have no desirable physical properties. That is why a paste of washed and concentrated amorphous titanium dioxide is ignited at a high temperature (around 1000°C) in a rotary kiln. Crystals of usable pigment are formed. After calcination in a rotary kiln is the pigment cooled, milled, classified and finally packed.

