



What you see now are the flowers of stainless steel. Please check the blue one. If you look at it from the bottom, don't you see the color is changing from blue to purple? The basic color of the stainless steel is silver. Flowers look like all the different color but none of them are painted. Why? Stainless means of course stain-less. Even without any coating, stainless steel doesn't rust and always remain bright and shiny. When it comes to steel, steel combines with oxygen to form red rust. But stainless steel is an alloy of steel and chrome. Chrome oxidize first. An oxide of chrome has no color and skeleton so it covers and protects the surface of the stainless steel. Even though it peeled off, chrome oxidize again so stainless steel will be covered and protected over and over. With keeping this good point of automatic repair how do we make it look nicer with variety of colors? A soap bubble will be a key to think. Soap liquid has no color and skeleton but once you blow the bubble to form thin film you may see colors like rainbow. Light reflecting at the surface and the light reflecting inside overlap makes colors visible so that human being can see colors. This is called interference of light. In the stainless steel flower case we are adjusting the thickness of the skeleton film and you may see the different colors with interference of light. If you take photos with flash light on, better interference colors may appear. Next guide will be about blast furnace.