

Welcome students, this model is the physical properties of mineral luster.

Outline is Lustre is a property of minerals and types of lusters will be learnt.

Outcomes students will be able to understand what is lustre and identify different types of luster.

Now Luster is different than color. Lustre refers to general appearance of sheen of a mineral. It refers to the way in which mineral reflects light. Now here you would be seeing a change in mineral that reflects light. This mineral will reflect light in a different way and this mineral will reflect light in a different way. This is what is called is lustre. Minerals have shiny appearance of polished metal are said to have metallic luster. So the minerals which have shiny like a metal like stainless steel, they are called is they are called as having metallic luster. Example, pyrite ore, galena ore or any other ore mineral that usually have metallic lustres. Minerals that do not appear metallic are said to have nonmetallic lustre. So it is very easy to differentiate between the two metallic and non metallic lusters. Those that appear only partially metallic are called as submetallic lusters example, haematite, pyrolusite, etc. In silicate minerals we usually have non metallic luster, and in ore minerals we usually have metallic lustres. Now this is a metallic luster. This mineral is galena. The luster is shown here. This is a metallic luster luster that is shown by stainless steel or any kind of metal is called as metallic luster. This is pyrite. If you see this irregular surface, there are places where you can see this luster. This is called as metallic luster. Now the luster that is slightly faint is called a submetallic luster. It all depends on one's perception what is the difference between metallic and submetallic luster. Now let us come to silicate lustres. The first property is vitreous luster. Vitreous luster is shown by this quartz transparent quartz. It has an appearance of broken glass. Another mineral that has similar type of luster is tourmaline. The other mineral is calcite is this mineral. This is calcite. Now this mineral has a luster that is slightly lesser than quartz. Hence it is called as subvitreous. The third luster is resinous. Now this luster looks like a resin, having the appearance of resin. So here if you see this try to chalk out similarities between resin and coal then you would find the change. So this is a resinous luster shown by coal, the other minerals that show resinous luster are sphalerite and sulfur. Now the next lustre is greasy, so this mineral is chlorite. This mineral shows greasy luster. So try to get similarities between the grease and this mineral, the lustre that is shown by this mineral and you will understand the similarity. So reflecting light to give a playoff colors or similar to oil on water is called as a greasy luster or other mineral that shows greasy luster is nepheline. Now this luster is silky. These are this is asbestos and this is also an asbestos though these two are different samples. The shiny appearance that you see on this asbestos is the silky appearance so having surfaces having appearing to be composed of fine fibers is called as silky luster. Example is chrisotile which is asbestos and the other example is gypsum. Admantine luster is a bright, shiny and brilliant luster is similar to that of diamonds and mostly diamonds show this type of luster. So the other mineral that shows this type of luster is cerussite. Next lustre is pearl. Pearly luster is appearing iridescent similar to pearls or some seashells. So this luster is extremely similar to pearls, so it is called as pearly luster. Other mineral that shows pearly lustre is talc. Now this lustre is dull because this mineral does not reflect light in a way it can be classified into other types of clusters that we have listed, so not reflecting any significant amounts of light or not showing any play of colors is said to have dull luster. So basically it does not reflect light so much to the scale that any luster could be seen. Hence this is bauxite and the lustre that is exhibited by bauxite is dull.

Now this is waxy, so imagine wax, so when you get wax and when you get this mineral, both the lusters are same. So this mineral is said to have luster as similar to wax. This is chalcedony mineral that has luster similar to wax and hence this is waxy luster.

So we saw different types of lusters in which there are two types. One is metallic luster and the other one is non metallic. Lusters in metallic lusters we have lusters that are shown similar to metals and the lusters which are slightly metallic are also called as submetallic lusters. In nonmetallic clusters we have vitreous luster, then we have silky lustre, then we have waxy luster, then we have silky luster, then we have pearly luster, we have adamantine luster and we have dull luster.

This is the bibliography.

Thank you.