Title:
Metallic Cookware

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Summary:
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Keywords:

Article Body:
The two essential features of a cookware are that it should have good thermal conductivity and that it should be chemically unreactive with the ingredients that are cooked in it. Metallic cookware are found to possess these essential features and hence are the most widely used forms of cookware across the globe. They are generally made from a narrow range of metals. Most metals that exhibit good thermal conductivity are too reactive to be used in food preparation. Hence selection of the right type of metal for cookware is crucial. The most popular metals that find usage in cookware are:

Aluminium

Aluminium is a lightweight metal which exhibits very good thermal conductivity. The main characteristics of aluminium are that it does not rust, and is resistant to many forms of corrosion. Being a soft metal, it is commonly alloyed with magnesium, copper, or bronze to increase its strength. It is generally available in sheet, cast or anodized forms. Sheet aluminum which is spun or stamped into form is commonly used for making baking sheets, pie plate, cake pans, steamers, pasta pots, skillets etc. Cast aluminium produces a thicker product than sheet aluminium and is suitable for saucepots, dutch ovens, heavyweight baking pans etc. However, due to the microscopic pores caused by the casting process, cast aluminium possesses low thermal conductivity than sheet aluminium. Anodized aluminium, on the other hand, has the naturally occurring

layer of aluminium oxide thickened by an electrolytic process to create a surface that is hard and non-reactive.

Copper

Copper is a metal which has the unique characteristic of providing good thermal conductivity, besides ensuring even heating. Due to these advantages, copper cookware has found a prominant place in Western cooking. The best copper cookware were made out of a thick layer of copper to ensure good thermal conductivity and a thin layer of tin to prevent the metal from reacting with acidic foods. However they tend to be heavy, expensive and requires occasional retinning. Copper cookware are now available with stainless steel rather than tin linings which last much longer. They are best suited for high-heat, fast-cooking techniques.

Cast Iron

Cast iron cookware is slow to heat, but once heated, provides even heating. It is cost effective and can withstand very high temperatures. Being a reactive material, cast iron is known to react with high acid foods. Cast iron, being a porous material, requires seasoning before use. Though cast iron cookware can be washed with soap, it should not be soaked in water or left wet for long.

Stainless Steel

Stainless steel is an alloy of iron containing a minimum of 11.5 % chromium. It is resistant to corrosion and does not react with either alkaline or acidic foods. Stainless steel cookware though are light, cannot be easily scratched or dented. Though stainless steel finds general acceptance in cookware industry, its main drawback is its relatively poor heat conductivity. To overcome this, stainless steel cookware is generally made with a metal insert of copper or aluminium at the base.