

Graphite is all around us. The mineral can be used to accessorize as diamonds, write in school as a pencil, and was even used to write the drafts of this article! However, there are so many things that graphite is used for behind the scenes, especially in science as graphitized carbon black sorbent material.

As a naturally-occurring form of crystalline carbon, graphite is a native element found in metamorphic and igneous rocks. It is formed when the carbon is subjected to pressures in the range of 75,000 pounds per square inch and temperatures in the range of 750 C°.

Graphite is unique as it is extremely soft, with the ability to cut with only a light pressure, and has a very low specific gravity. However, on the flip side, it is exceptionally resistant to heat and nearly inert when it comes in in contact with other materials.

These amazing properties gives the mineral a wide range of uses in metallurgy (area of science that focuses on the properties of metals and their production and purification) and manufacturing.

In chromatography, graphitized carbon black (GCB) is a widely used solid phase extraction (SPE) sorbent in the food and environmental testing industries. A significant advantage to using GCB is that it can retain nonpolar compounds, such as organochlorine pesticides, as well as some polar compounds that can be difficult to retain using reverse phase sorbents. And the coolest part? It looks like our SPE finally went to the dark side, but the good part of the dark side!

Phenomenex is always listening to their customers and understood the need for an improved GCB sorbent material that can be used for extracting pesticide residues from water, vegetables, and fruits.

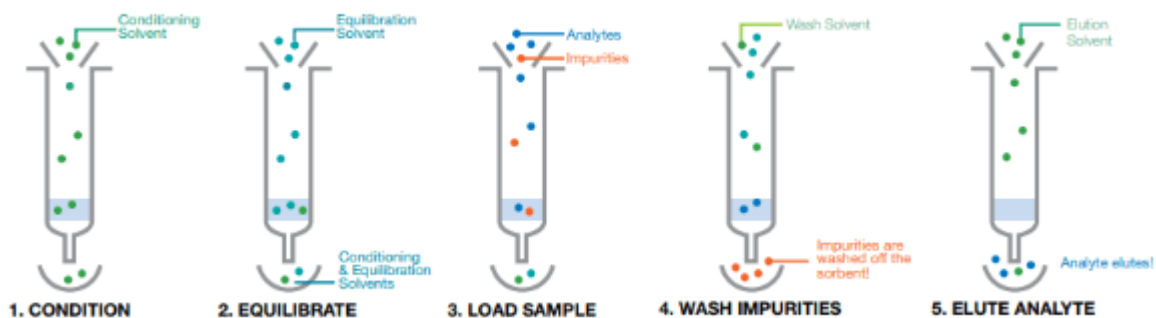


Strata[®] GCB is a high-quality GCB SPE clean-up that offers better retention of polar compounds compared to C8 and C18 silica products and is designed and manufactured from high quality non-porous chromatographically-grade graphitized carbon.

With Phenomenex's newest SPE product, Strata[®] GCB, we are able to offer a better clean-up of pesticides and PFAS from water, fruits and vegetables. These cartridges can be used as a stand-alone solution or in a dual cartridge method after another SPE to add an additional filtration steps for ultra-clean samples. An additional application that GCB is commonly used for is removal of pigments from fruit or vegetable matrices. We have used GCB for the dispersive SPE portion of our roQ™ QuEChERS kits for this purpose and saw a need in the market to expand out SPE capabilities. All Strata GCB cartridges are manufactured with high quality non-porous chromatographically-grade graphitized carbon.

This GCB sorbent material is able to improve recovery when working with the pesticide residue and also allows for excellent performance when removing pigments from sample matrices.

Graphitized Carbon Black (GCB) Method Protocol.



For more information about Phenomenex's new Graphitized Carbon Black sorbent material in Strata GCB, visit, www.phenomenex.com/StrataGCB, or reach out to our Technical Experts through Live Chat nearly 24/7 globally.

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