

Glossary

Filters for Deep Sky Astrophotography

Absorption filter A dyed filter that only passes one range of wavelengths and absorbs all others. For example, a Blue filter that only passes blue light.

Clip-in filters A versatile type of filter mounting that fits inside the DSLR camera body.

Bayer filter The most common color filter array, made up of two green pixels for every one red and one blue.

CFA Color filter array. The arrangement of red, green, and blue filters over the image sensor to create a full color image in a one shot color camera.

CLS City Light Suppression. A type of filter used to block High Pressure Sodium and Mercury Vapor streetlights. These are less effective for blocking LED streetlights.

Debayer An algorithm that interprets the data from a one shot color camera to create a color photo. This can be done in-camera (JPEG conversion) or in post-processing.

Demosaic See Debayer.

Emission line filter See Narrowband filter

Emission nebulae A type of nebulae made of ionized gas that emit light at very specific wavelengths called "emission lines" such as H-alpha, OIII, and S2.

Interference filter A filter that interferes with light by reflecting the unwanted

bandpasses. These filters can very complex and precise through applying different coating to the various layers of the filter. Most light pollution and narrowband filters are of this type.

Moon and Skyglow filter See Neodymium filter

Narrowband filter A filter with a very tight bandpass (3 to 12nm) around an emission line. Single line narrowband filters are typically used with mono cameras, while duo, tri, and quad band filters are designed for color cameras.

Neodymium filter A filter made of neodymium glass (and special coatings) that uses the special properties of the element neodymium to block some light pollution and add contrast to astrophotos

Notch filter Many interference filters notch out certain wavelengths, leaving the rest of the spectrum intact. Rarely used term.

OSC One shot color. A camera with a color filter array intact as part of the filter stack on the image sensor. 99% of stock DSLRs and Mirrorless cameras are OSC.

UHC Ultra high contrast. Typically a visual filter for viewing nebulae. May be used for astrophotography, but not ideal.

UV/IR Cut filter A type of filter that blocks light outside of the visible spectrum. Also called 'Hot Mirror' when incorporated into the camera design.