

Carbon or “Red” Stars

The following list identifies the reddest stars that can be seen from Mt. Kobau at this time of year. They are truly red: like tiny droplets of blood or little ruby gems against the black velvet display case of space, they astonish the first-time viewer. These are dying red giant variable stars, for the most part, although some are binaries. Their cool outer atmospheres have dredged up carbon in their later stages to form molecules of a sooty or dusty character that absorb light towards the blue end of the spectrum and pass that at the red end, even well into the infrared. Like most events in the universe, their exact properties are still something of a mystery, as newer classifications multiply theories of formation; but their charm as visual objects at a telescope of almost any aperture is undeniable. See if using lowest powers does the greatest justice to their colours – although some will bear high magnifications without fading appreciably.

Sky & Telescope’s *Pocket Sky Atlas* identifies 55 carbon stars with the symbol: (c). Not all are observable at this time of year, and some are more orange, peach, or salmon-coloured than red. For the sake of comparison, though, in order to appreciate just how red the reddest carbon stars can be, add some of these less red or poppy-coloured stars to the following list, which identifies some of the 22 reddest carbon stars in the entire night sky. The list identifies the following nine examples by chart (from the *Pocket Sky Atlas*), often with a comment on their other names and how to find them.

43: Y CVN: mag. 5.0 – 6.4: “La Superba”: (below handle of Big Dipper)

63: T LYR: mag. 7.5 – 9.3: (other side of Vega from the “double double”)

71: MU CEP: mag. 3.7 – 5.0: Herschel’s Garnet Star: (northern IC 1396)

71: S CEP: mag. 7.7 – 12.5: (west of gamma, the “point” of Cepheus’ roof)

52: T DRA: mag. 7.2 – 13: double C* (near “head” of the dragon)

67: V AQL: mag. 6.6 – 8.1: (near lambda)

55: T CRB: mag. 2.3 – 10: Nova Blaze Star (near epsilon)

73: U CYG: mag. 6.7 – 11: (near omicron 2)

73: V CYG: 8 – 13.8: (near border with Pegasus)