

alpha Ori, 58 Ori, FK5: 224, SAO 113271, HR 2061, HD 39801

Ori
Orion

Position, Motion, Parallax

Right ascension (J2000):	5h 55m 10.3s
Declination (J2000):	7° 24' 25"
Right ascension (2008.70):	5h 55m 38.5s
Declination (2008.70):	7° 24' 34"
Proper motion in RA:	0.026"/a
Proper motion in DEC:	0.009"/a
Trigonometric parallax:	0.005"
Radial velocity:	21 km/s
Rotational velocity:	
Galactic longitude:	199.79°
Galactic latitude:	-8.96°

Magnitude, Spectra

Visual magnitude:	0.50
Spectral class:	M1-2Ia-lab
B-V:	1.85
U-B:	2.06
R-I:	1.28

Double / Multiple Information

Components:	6
Component ID:	AE
Mag. difference:	9.9
Separation:	174.40"

Notes

D: Components B-E all 11 to 14.5v at sep. 40" to 174" from A. D 13.5 at 77", optical. Speckle interferometric observations in 1983 November (Karovska et al. 1986, ApJ, 308, 360) show A to be a triple system with closer companion at 0.06" (mag. diff. 3.4 at H alpha) and more distant companion at 0.51" (mag. diff. 4.6 at H alpha).

M: Radio star. Circumstellar shell of gas and dust. The gas shell detached from photosphere at about 5 stellar radii. Diam of optically thin dust shell possibly 1".5. Surrounded by reflection nebula. Gas shell up to 100 R, dust shell from 12 to 250 R. Highly limb darkened.

N: BETELGEUSE; Betelguex; Betelgeuze; Beteiguex; Al Mankib.

R: The first star whose diameter was measured with the interferometer, .047", by Michelson and Pease at Mt. Wilson in 1920.

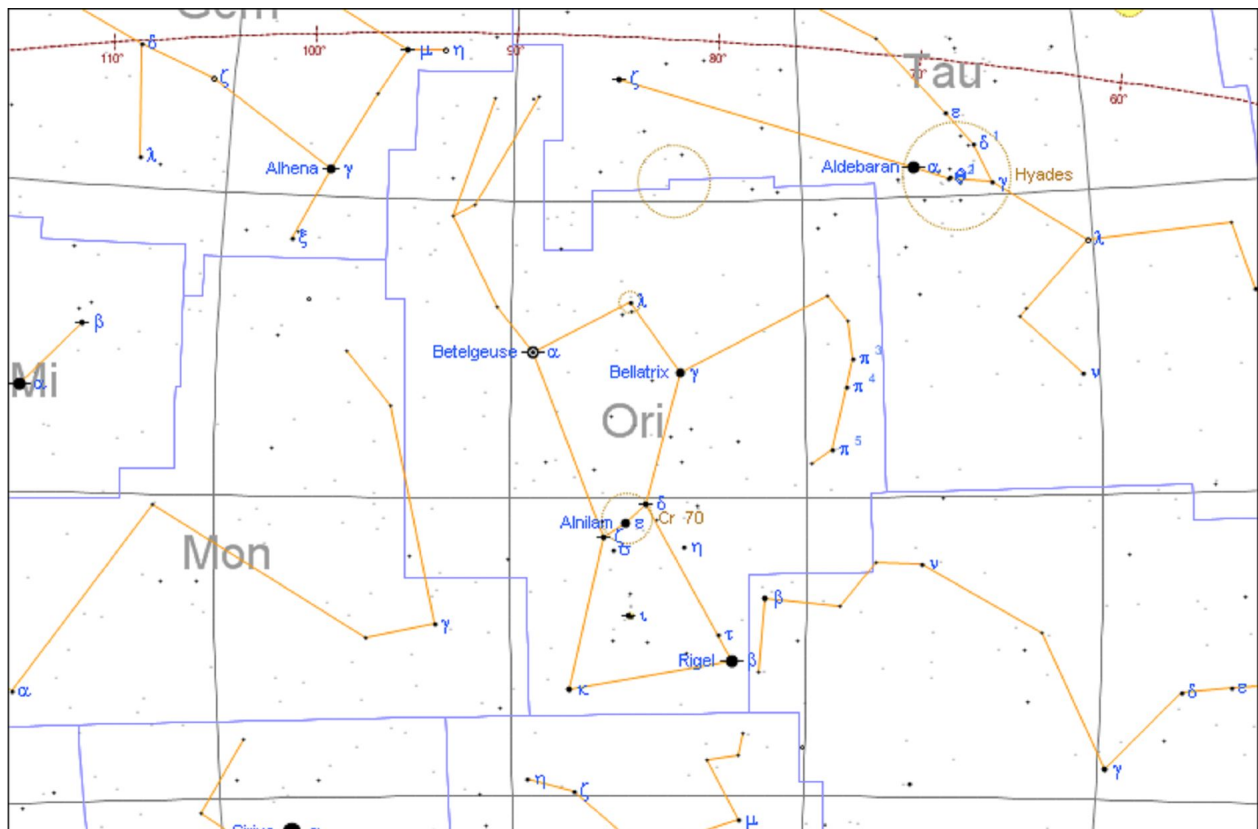
RV: Expanding circumstellar shell, extending at least 29" or about 600 stellar radii. If rate constant, initial potassium ejection about 2700 years ago. 2.85-cm radio emission indicates mass loss.

S: Ultraviolet Fell emission. 5-micron observations indicate carbon monoxide. STRATOSCOPE II observations indicate infrared H2O bands. UV observations from OAO-2 indicate C and O underabundant. MglI emissions indicate a cooler shell surrounding the supergiant.

SB: ADS 4506A, 5.781y, K 3.08k/s, V0 +20.33k/s, asini 81.773.

VAR: ADS 4506A, SRc 0.40 - 1.3V, 2335d. Also superimposed waves 200-400d.

Abbreviations: C - Colors; D - Double and multiple stars; DYN - Dynamical parallaxes; G - Group membership; M - Miscellaneous; N - Star names; P - Polarization; R - Stellar radii or diameters; RV - Radial and/or rotational velocities; S - Spectra; SB - Spectroscopic binaries; VAR - Variability



Data from the Bright Star Catalogue, 5th Revised Ed. (Preliminary Version) (Hoffleit+, 1991)