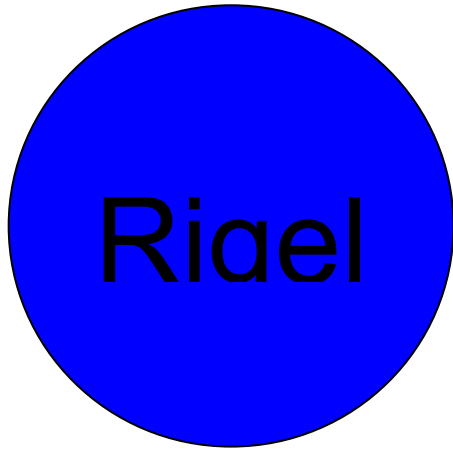
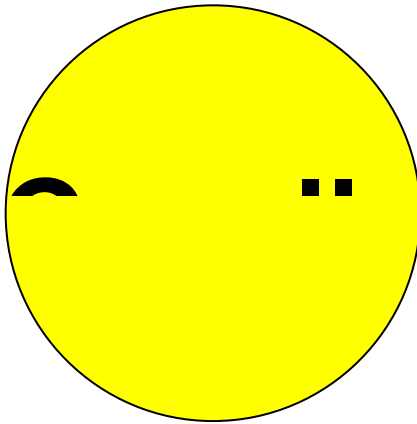
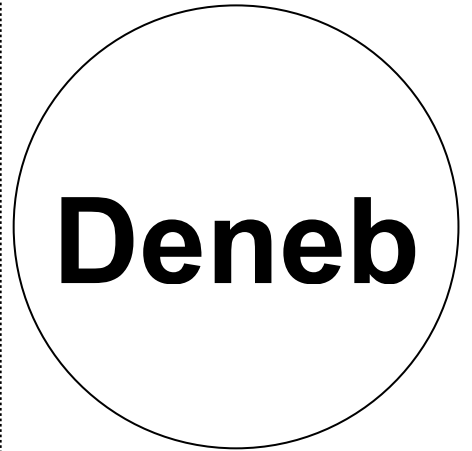




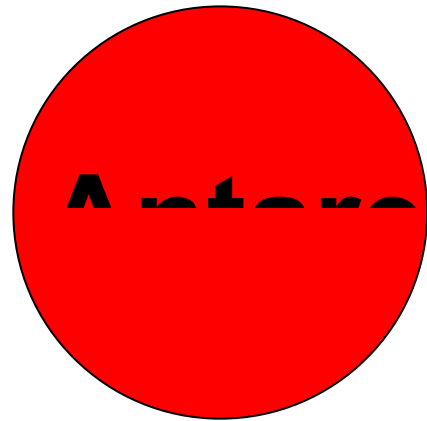
Mass: 20 Solar Mass
Radius: 78 Solar Radii



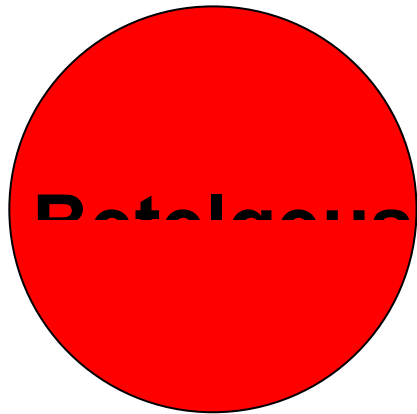
Mass: 20 Solar Mass
Radius: 13 Solar Radii



Mass: 20 Solar Mass
Radius: 96 Solar Radii



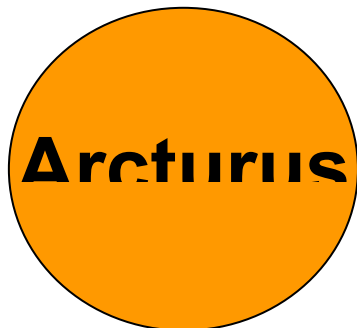
Mass: 20 Solar Mass
Radius: 776 Solar Radii



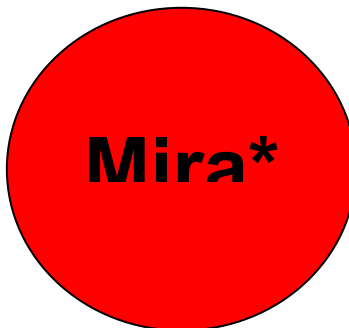
Mass: 10 Solar Mass
Radius: 1,000 Solar Radii



Mass: 4 Solar Mass
Radius: 87 Solar Radii



Mass: 4 Solar Mass
Radius: 87 Solar Radii

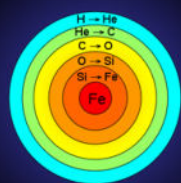


Mass: 1.1 Solar Mass
Radius: 332 Solar Radii



Mass: 0.65 Solar Mass
Radius: 5.6 Solar Radii

Fusion Reactions

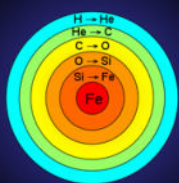


For a 25 solar mass star:

Stage	Duration
H → He	7x10 ⁶ years
He → C	7x10 ⁵ years
C → O	600 years
O → Si	6 months
Si → Fe	1 day
Core Collapse	1/4 second

Density: 0.00004 Sun density
Lifetime: 10 Million Years
Abundance: 0.0001% of stars

Fusion Reactions

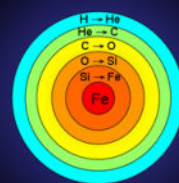


For a 25 solar mass star:

Stage	Duration
H → He	7x10 ⁶ years
He → C	7x10 ⁵ years
C → O	600 years
O → Si	6 months
Si → Fe	1 day
Core Collapse	1/4 second

Density: 0.00096 Sun density
Lifetime: 10 Million Years
Abundance: 0.0001% of stars

Fusion Reactions

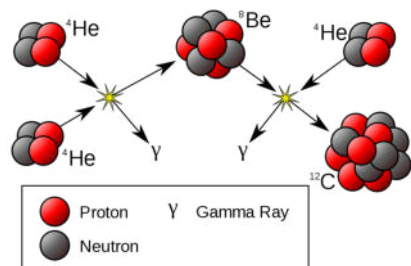


For a 25 solar mass star:

Stage	Duration
H → He	7x10 ⁶ years
He → C	7x10 ⁵ years
C → O	600 years
O → Si	6 months
Si → Fe	1 day
Core Collapse	1/4 second

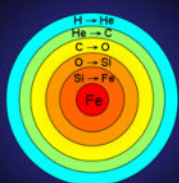
Density: 0.00004 Sun density
Lifetime: 10 Million Years
Abundance: 0.0001% of stars

Fusion Reactions



Density: 0.000006 Sun density
Lifetime: 1,000 Million Years
Abundance: 0.4%

Fusion Reactions

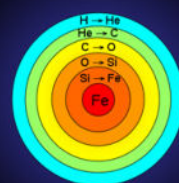


For a 25 solar mass star:

Stage	Duration
H → He	7x10 ⁶ years
He → C	7x10 ⁵ years
C → O	600 years
O → Si	6 months
Si → Fe	1 day
Core Collapse	1/4 second

Density: 0.0000005 SD
Lifetime: 10 Million Years
Abundance: 0.0001% of stars

Fusion Reactions

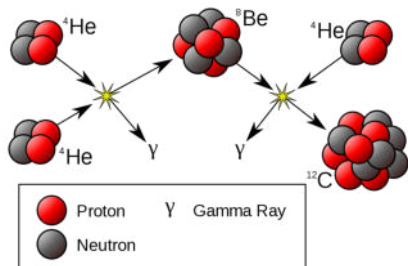


For a 25 solar mass star:

Stage	Duration
H → He	7x10 ⁶ years
He → C	7x10 ⁵ years
C → O	600 years
O → Si	6 months
Si → Fe	1 day
Core Collapse	1/4 second

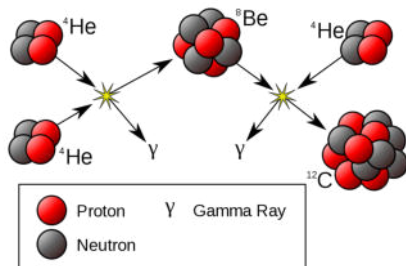
Density: 0.00000004 SD
Lifetime: 10 Million Years
Abundance: 0.0001% of stars

Fusion Reactions



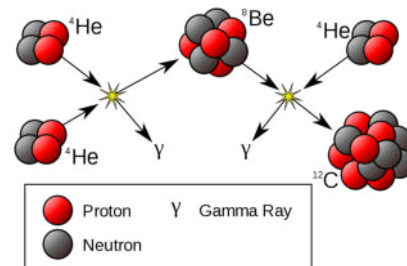
Density: about 0.00001 SD
Lifetime: 1,000 Million Years
Abundance: 0.4%

Fusion Reactions

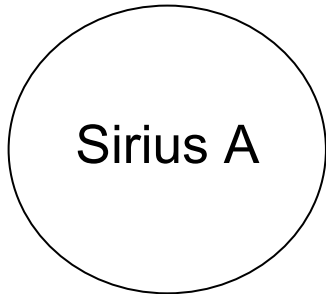


Density: about 0.00001 SD
Lifetime: 1,000 Million Years
Abundance: 0.4%

Fusion Reactions

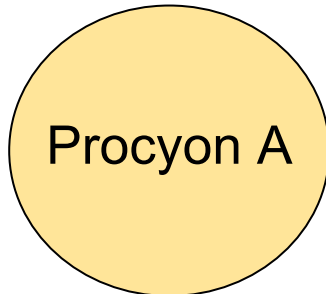


Density: 0.00018 Sun density
Lifetime: 1,000 Million Years
Abundance: 0.4%



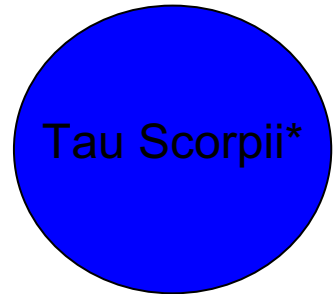
Sirius A

Mass: 2.3 Solar Mass
Radius: 1.9 Solar Radii



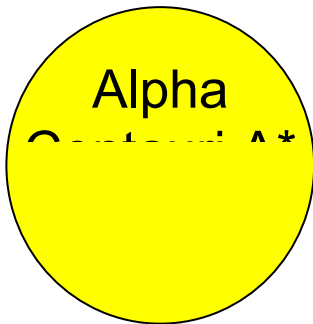
Procyon A

Mass: 1.8 Solar Mass
Radius: 2.6 Solar Radii



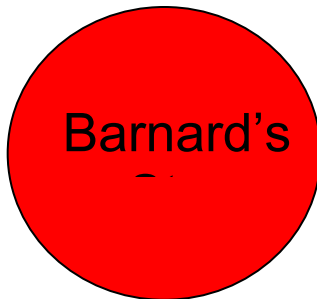
Tau Scorpii*

Mass: 15 Solar Mass
Radius: 5.2 Solar Radii



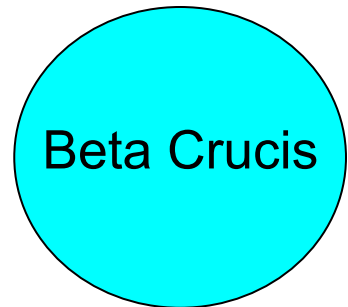
Alpha
Centauri A*

Mass: 1.1 Solar Mass
Radius: 1.2 Solar Radii



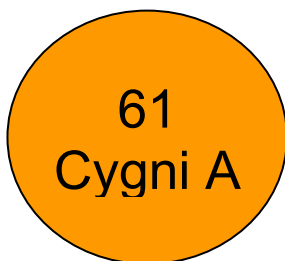
Barnard's
Star

Mass: 0.18 Solar Mass
Radius: 0.15 Solar Radii



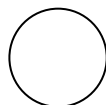
Beta Crucis

Mass: 10 Solar Mass
Radius: 8.4 Solar Radii



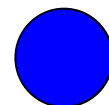
61
Cygni A

Mass: 0.58 Solar Mass
Radius: 0.7 Solar Radii



Van Maanen's
Star

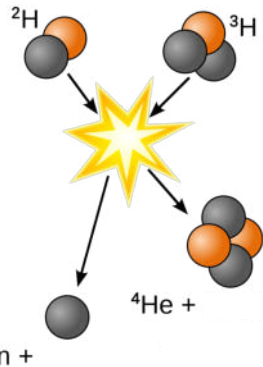
Mass: 0.14 Solar Mass
Radius: 0.0007 Solar Radii



Sirius R

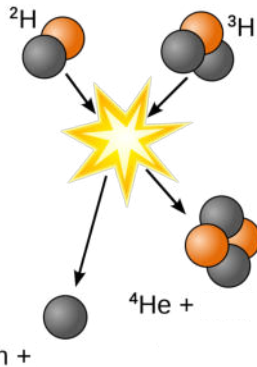
Mass: 0.99 Solar Mass
Radius: 0.022 Solar Radii

Fusion Reaction



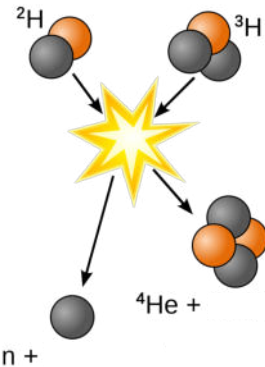
Density: 0.1
Lifetime: 10 million years
Abundance: 0.00001% of Stars

Fusion Reaction



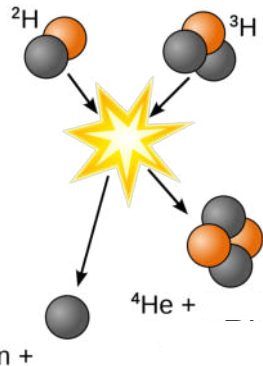
Density: 0.102
Lifetime: 3,000 million years
Abundance: 2% of stars

Fusion Reaction



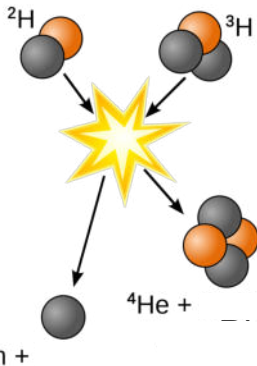
Density: 0.335
Lifetime: 10 Million years
Abundance: 0.00001% of stars

Fusion Reaction



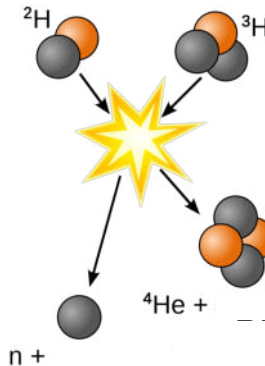
Density: 0.2
Lifetime: 100 Million years
Abundance: 0.1 % of stars

Fusion Reaction



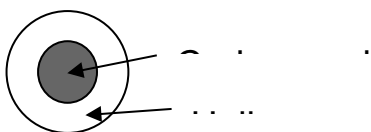
Density: 5.13
Lifetime: 200,000 Million
Abundance: 80% of stars

Fusion Reaction



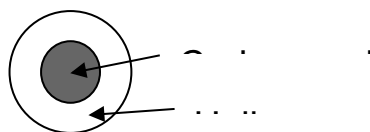
Density: about 0.9
Lifetime: 10,000 Million years
Abundance: 3.5% of stars

No Fusion Reaction



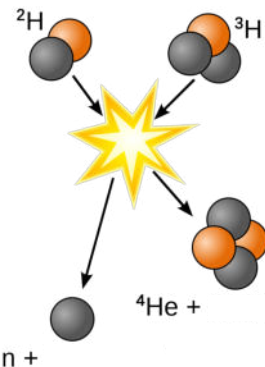
Density: 90,000
Lifetime: Unknown
Abundance: 5%

No Fusion Reaction



Density: 47,000
Lifetime: Unknown
Abundance: 5%

Fusion Reaction



Density: 1.69 Solar Density
Lifetime: 50,000 Million years
Abundance: 8%

Giants

Supergiants

Main Sequence Stars

Larger than 8 Solar Masses

Main Sequence Stars

Smaller than 8 Solar Masses

White Dwarfs