

## Index of elements in stars

In what follows we provide an index of the different elements studied for a given group of stars. The definitions and synonyms for the different groups are given in part three, chapter 2.

- Am stars* Al, Ba, Cd, C, Ce, Co, Cu, Dy, Er, Eu, Gd, Ho, Fe, La, Pb, Li, Mg, Nd, N, O, Pr, Sm, Sc, Si, Na, Sr, Tb, W, Y, Zn
- Ap Cr–Eu–Sr subgroup* Al, Am, As, Ba, Be, Bi, Cd, C, Cr, Cs, Ce, Co, Cu, Cm, Dy, Er, Eu, Gd, Ge, Au, Ho, Fe, In, Ir, I, La, Pb, Li, Lu, Mg, Mn, Hg, Mo, Nd, Nb, N, Os, O, Pd, Pt, Pu, Pr, Pm, Re, Rh, Ru, Sm, Sc, Se, Si, Ag, Na, Sr, S, Te, Tb, Th, Tm, Ti, Sn, U, W, Xe, Yb, Y, Zn, Zr
- Ba stars = barium stars* Ba, C, Ce, Dy, Er, Eu, Gd, Hf, Fe, In, La, Pb, Mg, Mo, Nd, Nb, O, Pr, Rb, Ru, Sm, Sr, Ta, Tc, W, Y, Zr
- Be stars* Ca, C, Ce, H, Fe, Mg, N, O, Si (see also shell stars)
- B[e] stars* Ca, Cr, Cu, He, H, Fe, Mg, Mn, Ni, N, O, Na, S, Ti
- Blue stragglers* Ba, O, Sc
- Bp = B-type peculiar stars* Cl, Kr
- Bp Helium-weak stars* Al, Ga
- Bp Hg–Mn subgroup* Al, Ba, Be, Bi, B, C, Cl, Co, Cu, Gd, Ga, Ge, He, Ho, Fe, Mn, Hg, Ni, N, O, P, Pt, Sc, Si, Sr, S, Xe, Y, Zn, Zr
- Bp Si subgroup* Al, C, Er, Ga, Au, He, Fe, La, Nd, N, O, Pd, Pt, Sm, Si, Tm
- C stars = carbon stars* Ba, Ca, C, Ce, Cl, F, H, La, Li, Nd, N, O, K, Sm, Si, Na, Tc, Y, Zr
- Cataclysmic variables* Ca, H, Fe
- Central stars of planetary nebulae* C, He, H
- Cepheids* Ca, He, H
- Ch stars* Ca, C, Na
- Chromosphere* Ca, C, He, H, Fe, Mg, N, O, Si
- CNO stars* Fe, C, He, N, O
- Compact infrared sources* Ca, H, O, S
- Corona* Ca, C, Fe, Ni, N, O, Si
- Degenerates* H
- Degenerates of type A = DA* Ca, H
- Degenerates of type B = DB* Ca, He, H
- Degenerates of type Z = DZ* Ca, He, Fe, H, Mg
- Delta Del stars* Ba, Ca, Eu, Gd, Sc, Sr, Y
- dKe stars* H
- dMe stars* He, H, Na
- dwarf novae* He, Fe
- Extreme helium stars* Ar, H, He, Fe, Mg, Ne, Si, S
- Flare stars* H
- Galactic supergiants* H, O
- Gaseous nebulae* O
- Globular cluster stars (giants and dwarfs)* Al, Ba, Ca, C, Cr, Co, Cu, Eu, Fe, La, Mg, Mn, Ni, N, O, Sc, Si, Na, Ti, V, Y, Zr
- Globular cluster giants* C
- Globular cluster supergiants* Al, Ba, Na, S
- Halo stars (dwarfs and giants)* Ni, O, Sc

Cambridge University Press

978-0-521-10240-7 - The Behavior of Chemical Elements in Stars

Carlos Jaschek and Mercedes Jaschek

Index

[More information](#)

- Halo supergiants* S  
*Helium-rich subdwarfs* N  
*Helium-strong objects or stars* C, He, H, Ne, P  
*Helium-weak stars* He  
*Herbig Ae, Be stars* H, Fe, Mg, O  
*High-luminosity stars* He, Na  
*High-luminosity early type objects* H  
*Horizontal branch stars* =  
*HB stars* Al, Ba, Ca, C, Cl, He, Fe, Mg, N, P, Sc, Si, Sr, Y  
*Hydrogen-deficient C stars* C  
*J stars* Ba, C, O  
*Lambda Boo stars* Ca, C, Fe, Mg, N, O, Na, Sr, S, Ti  
*Late type stars* He  
*Li-rich stars* Li  
*Long-period variables* =  
*Mira variables* Ca, Co, Gd, He, H, Fe, In, La, Mg, Mn, O, K, Sc, Si, Sr, S, Ti, V, Zr  
*Luminous blue variables* Cu, Fe, N, Ni  
*Magellanic Cloud stars* Ba, C, H, Li, N, O, Sm, Sr, S, Y, Zr  
*(Small) Magellanic Cloud stars* Eu, Fe, O  
*(Large) Magellanic Cloud stars* Fe, O  
*Magnesium-strong stars* Mg  
*Masers* Mg  
*Metal-weak giants, N metal-weak stars* =  
*metal-deficient stars* Al, Ba, Be, Ca, C, Cr, Ce, Cu, Dy, Eu, Gd, Fe, La, Li, Mg, Mn, Nd, Ni, N, Pr, Sm, Sc, Si, Na, Sr, S, Ti, Y, Zn, Zr  
*Metal-rich stars* Na  
*Mira variables = Long-period variables* (see there)  
*MS stars* C, La, Mg, Nd, O, Rb, Si, Tc, Ti, Y  
*N stars* C  
*Neutron stars* H  
*Novae* Al, Ar, Ca, C, He, H, Fe, Kr, Mg, Ne, Ni, N, O, Sc, Si, Na, S  
*Nova remnants* H  
*Oe stars* Ca, He, H, Fe, O  
*Oe stars* Ca, He, H, Fe, O  
*Of stars* C, He, H, N  
*Of(f) stars* He, N  
*O(f(f)) stars* He, N  
*Old stars* Li  
*Old disk stars* Mg  
*Open cluster stars* Li, Na  
*Oxygen-rich giants* O  
*P Cyg stars* N, Si  
*P-strong stars* P  
*Peculiar supergiants* N  
*Planetary nebulae* O  
*Post-asymptotic branch stars* S  
*Pre-degenerate stars* C, He, H, N, O  
*R stars* C  
*R CrB stars* Ba, C, He, H, Fe, Ne, N, O, Ti  
*Recurrent novae* Ar, Ca, He, Fe, K, V  
*RR Lyr variables* He, H  
*Rs CVn stars* Li, Mg, Mn  
*Rv Tau stars or variables* Ca, He, H  
*S stars = S-type stars* Ba, Ca, C, Dy, Er, Eu, F, Gd, He, Ho, Fe, La, Li, Mg, Mn, Mo, Nd, Nb, N, O, K, Pr, Rb, Ru, Sm, Ag, Na, Sr, Tc, Tm, Ti, Yb, Y, Zr  
*SC stars* Ba, C, F, La, Li, Mo, Sm, Tc, Y, Zr  
*Second population A-type stars* Zn  
*Semiregular variables* H, Fe, Mg  
*sdB = subdwarf B* C, He, H, Fe, N, O, Si  
*sdO = subdwarf O* C, He, H, Fe, N, O, Si  
*Shell stars = Be shell stars* Mg, N, Si  
*Subgiant CH stars* Ba, Fe, Nd, Nb, Ru, Sr, Y, Zr  
*Supernovae* Ar, Ca, Co, He, H, Fe, Mg, Ni, O, Sc, Si, Na, S, Ti  
*Symbiotic stars* Ar, Ca, C, Cr, He, H, Fe, Ne, N, O, S  
*T Tau stars or variables* Al, Ca, Cr, Co, He, H, Fe, Li, Mg, Mn, Ni, N, O, Sc, Si, Na, Sr, S, Ti  
*VV Cep stars* Cu, Fe, Mn, Ni, Na, S  
*WC stars* C, He, O  
*Weak G-band stars* C, Li, N  
*WN stars* He, H, N, O  
*WO stars* O  
*WR stars* C, H, Fe  
*W Vir variables* He, H

## Index of molecules in stars

In what follows we provide an index of the different molecules studied for a given group of stars. The definitions and synonyms for the different groups are given in part three, chapter 2.

- Ap* CH  
*Acetylene radicals* C<sub>6</sub>H  
*Ba stars* C<sub>2</sub> CN  
*C stars = carbon stars* H<sub>2</sub>  
 NaCl KCl MgNC  
 CaCl CuH ZnH AlH  
 AlCl AlF CH C<sub>2</sub> CN  
 CO HCN HNC HC<sub>2</sub>N  
 HC<sub>3</sub>N HC<sub>5</sub>N HC<sub>7</sub>N  
 HC<sub>9</sub>N HC<sub>11</sub>N HC<sub>13</sub>N  
 CH<sub>4</sub> C<sub>2</sub>H<sub>2</sub> C<sub>3</sub>H<sub>2</sub> C<sub>4</sub>H<sub>2</sub>  
 C<sub>2</sub>H C<sub>3</sub>H C<sub>4</sub>H C<sub>5</sub>H  
 C<sub>6</sub>H C<sub>3</sub>N C<sub>2</sub>H<sub>4</sub>  
 C<sub>2</sub>H<sub>3</sub>N C<sub>3</sub> C<sub>5</sub> SiH<sub>4</sub>  
 SiC SiC<sub>2</sub> SiC<sub>4</sub> SiN SiO  
 SiS GeH SnH NH  
 NH<sub>3</sub> CP OH H<sub>2</sub>S CS  
 C<sub>2</sub>S C<sub>3</sub>S HF  
*C stars with O-rich envelopes* H<sub>2</sub>O  
*CH stars* CH  
*Closed shell families of molecules* C<sub>4</sub>H<sub>2</sub>  
*CN stars* CN  
*CS stars = SC stars* CaH  
 CaCl ZrO CrH CN  
 SiO SiC<sub>2</sub> HF  
*Cyanopolyynes* HC<sub>3</sub>N  
*Disk subdwarfs* CaH  
*Earth's atmosphere* O<sub>2</sub> O<sub>3</sub>  
*Evolved stars* SiO  
*Globular cluster giants* CN  
*Halo subdwarfs* CaH  
*HCN masers* HCN  
*HH objects = Herbig-Haro objects* H<sub>2</sub>  
*High-luminosity objects* CO  
*H<sub>2</sub>O masers* HCN OH  
 H<sub>2</sub>O  
*Hydrogen-deficient stars* HCN  
*Irregular variables* AlH  
 SiO  
*J stars* SiO  
*Luminous infrared objects* CO  
*Long-period variables = Mira variables* H<sub>2</sub>  
 CaCl TiS CrH AlH  
 AlO C<sub>2</sub> CN CO HCN  
 C<sub>2</sub>H<sub>2</sub> SiH SiC<sub>2</sub> SiO  
 SiS OH H<sub>2</sub>O CS  
*Metal-strong stars* CN  
*Metal-weak stars* CN  
*Mira variables* see long-period variables  
*MS stars* CeO AlH CrH  
 AlH  
*Novae* CO SiC SiO  
*OH masers* CO CNH  
 OH SO<sub>2</sub>  
*OH/IR infrared objects*  
 CO SiO OH H<sub>2</sub>O  
*Oxygen-rich objects*  
 HC<sub>7</sub>N HC<sub>13</sub>N HCO<sup>+</sup>  
 H<sub>2</sub>CO NH NH<sub>3</sub> PN  
 H<sub>2</sub>S CS  
*Oxygen-rich envelopes* CN  
 SO OCS  
*R CrB stars* CN HCN  
 SiH  
*S stars = S-type stars* H<sub>2</sub>  
 CaCl LaO YO CeO  
 ZrO ZrS TiO TiS  
 FeH AlH CO SiH  
 SiO H<sub>2</sub>O YS HF HCl  
*SC stars* see CS stars  
*Semiregular variables* C<sub>2</sub>  
 SiC<sub>2</sub> SiO OH H<sub>2</sub>O  
*SiO masers* HCN SiO  
*SM stars* see MS stars  
*Subdwarfs (halo)* see halo subdwarfs  
*Subdwarfs (disk)* see disk subdwarfs  
*Subgiant CH stars* CH  
 C<sub>2</sub>  
*Sun, chromosphere* CO  
*Sun, photosphere* H<sub>2</sub>  
 MgH FeH CH CH<sup>+</sup>  
 CN CO SiH SiH<sup>+</sup>  
 SiO NH OH HS  
*Sunspots* H<sub>2</sub> MgH MgO  
 CaH ScO ZrO TiO  
 TiH VO CrH CoH  
 FeH FeO CuH AlH  
 CH CN CO SiH SiO  
 NH OH H<sub>2</sub>O HF  
 HCl  
*Super metal-rich stars* CN  
*Supernovae* CO SiO  
*Symbiotic stars* TiO VO  
*Weak G-band stars* CH  
 CN