

Superconductors — Material Research

| Substance ↕ | Class ↕ | T_C (K) ▼ | H_C (T) ↕ | Type ↕ | BCS ↕ | References ↕ |
|--|--------------|---------------|-------------|--------|-------|-------------------|
| LaH ₁₀ | Polyhydride | 250 (150 GPa) | | | | [50] |
| CaH ₆ | Clathrate | 215 (172 GPa) | | | | [17][18] |
| H ₂ S | Polyhydride | 203 (155 GPa) | | II | | |
| HgTlBaCaCuO | Cuprate | 164 | | II | | [citation needed] |
| HBCCO | Cuprate | 135 | | | | |
| BSCCO | Cuprate | 104 | | | | |
| YBCO | Cuprate | 95 | 120–250 | II | no | |
| EuBCO | Cuprate | 93 | | II | no | [46] |
| GdBCO | Cuprate | 91 | | II | no | [47] |
| La ₃ Ni ₂ O ₇ | Oxonickelate | 80 (>14 GPa) | | | | [49] |
| FeSe·SrTiO ₃ | Iron-based | 60-100 | | | | |
| SmFeAs(O,F) | Iron-based | 55 | | | | |
| CuBa _{0.15} La _{1.85} O ₄ | Cuprate | 52.5 | | | | [45] |
| CeFeAs(O,F) | Iron-based | 41 | | | | |
| MgB ₂ | Compound | 39 | 74 | II | yes | [29] |
| C ₆₀ Cs ₃ | Compound | 38 | | | | |
| (Ba,K)Fe ₂ As ₂ | Iron-based | 38 | | | | |
| C ₆₀ Cs ₂ Rb | Compound | 33 | | II | yes | [22] |
| C ₆₀ Rb _x | Compound | 28 | | II | yes | [24] |
| LaFeAs(O,F) | Iron-based | 26 | | | | |
| Nb ₃ Ge | Compound | 23.2 | 37 | II | yes | [32] |
| NaFeAs | Iron-based | 20 | | | | |
| C ₆₀ K ₃ | Compound | 19.8 | 0.013 | II | yes | [16][23] |
| Nb ₃ Sn | Compound | 18.3 | 30 | II | yes | [34] |
| Nb ₃ Al | Compound | 18 | | II | yes | [2] |
| NbC _{1-x} N _x | Compound | 17.8 | 12 | II | yes | [30][31] |
| V ₃ Si | Compound | 17 | | | | [39] |
| NbN | Compound | 16 | | II | yes | [2] |
| C ₆ Ca | Compound | 11.5 | 0.95 | II | | [19] |
| Diamond·B | Element | 11.4 | 4 | II | yes | [5][6][7] |
| C ₆ Li ₃ Ca ₂ | Compound | 11.15 | | II | | [19] |
| LaFeSiH | Iron-based | 11 | | | | [48] |
| NbTi | Compound | 10 | 15 | II | yes | [2] |
| ZrN | Compound | 10 | | | yes | [43] |
| Nb | Element | 9.26 | 0.82 | II | yes | [2][3] |
| YB ₆ | Compound | 8.4 | | II | yes | [40][41][42] |
| Ba ₈ Si ₄₆ | Clathrate | 8.07 | 0.008 | II | yes | [16] |
| Tc | Element | 7.46–11.2 | 0.04 | II | yes | [2][3] |
| Pb | Element | 7.19 | 0.08 | I | yes | [2][3] |
| C ₆ Yb | Compound | 6.5 | | II | | [19] |
| β-La | Element | 6.3 | | I | yes | [2] |
| ZrB ₁₂ | Compound | 6.0 | | II | yes | [42] |
| TiN | Compound | 5.6 | 5 | I | yes | [36][37][38] |
| V | Element | 5.03 | 1 | II | yes | [2][3] |
| C ₂ Na | Compound | 5.0 | | II | | [20] |
| α-La | Element | 4.9 | | I | yes | [2] |
| Ta | Element | 4.48 | 0.09 | I | yes | [2][3] |
| α-Hg | Element | 4.15 | 0.04 | I | yes | [2][3] |
| LaFePO | Iron-based | 4 | | | | |
| β-Hg | Element | 3.95 | 0.04 | I | yes | [2][3] |
| Sn | Element | 3.72 | 0.03 | I | yes | [2][3] |

Figure 1: A list of superconductors (Source: Wikipedia, yes I know)

I would hazard a guess that the most used superconductors are those that are alloys of Niobium, my reasoning is that they have reasonably high critical temperatures (around 10 to 30 kelvin) which isn't high but is cold enough to be cooled by liquid helium which is a common coolant amongst superconductors.