| Quantity                              | Symbol                  | Numerical value          | Unit                        | Quantity                              | Symbol                  | Numerical value          | Unit                        |
|---------------------------------------|-------------------------|--------------------------|-----------------------------|---------------------------------------|-------------------------|--------------------------|-----------------------------|
| speed of light in vacuum              | c, c₀                   | 299 792 458 (exact)      | m s⁻¹                       | muon β-factor – 2(1 + αₚ)             | gₚ                      | -2.002 331 8414(12)      |                              |
| magnetic constant                     | μ₀                      | 4π x 10⁻⁷ (exact)        | N A⁻²                       | muon-proton magnetic moment ratio     | μₚ/μₚ                   | -3.183 345 137(85)       |                              |
| electric constant 1/μₑ²               | ε₀                     | 8.854 187 817 (23)       | F m⁻¹                       | proton mass                           | mₚ                      | 1.672 621 637(83) x 10⁻²⁷ | kg                           |
| Newtonian constant of gravitation     | G                      | 6.674 286 (67) x 10⁻¹¹   | m³ kg⁻¹ s⁻²                 | energy equivalent in MeV              | μₑ²/μₚ                   | 938.272 013(83) MeV      |                              |
| Planck constant                       | h                      | 6.626 070 150(31) x 10⁻³⁴ | J s                         | proton-electron mass ratio            | μₑ²/μₚ                   | 1.837 162 747(80)        |                              |
|                                      | h/2π                   | 1.054 571 628 (53) x 10⁻¹⁵ | eV s                       | proton magnetic moment                | μₑ²/μₚ                   | 1.410 606 662 (37) x 10⁻²⁶ | J⁻¹ T⁻¹                     |
| elementary charge                     | e                      | 1.602 176 487 (40) x 10⁻¹⁹ | J                           | proton magnetic shielding correction 1 – μₑ²/μₚ σₑ² | μₑ²/μₚ                   | 2.792 847 556 (23)       |                              |
|                                      | e²                     | 4.135 667 (31) x 10⁻¹⁵   | eV s                       | proton magnetic shielding correction 1 – μₑ²/μₚ σₑ² | μₑ²/μₚ                   | 2.594 (14) x 10⁻⁶        |                              |
| magnetic flux quantum h/2e            | Φ₀                     | 2.067 833 667 (52) x 10⁻¹⁵ | Wb m                         |                               |                         |                          |                              |
| Josephson constant 2e/h               | Φₛ                     | 48.697 891 (12) x 10⁻¹³  | Hz V⁻¹                      |                               |                         |                          |                              |
| von Klitzing constant h/2emₚ          | Φₚ                     | 25.812 807 557 (18)      | Ω                           |                               |                         |                          |                              |
| Bohr magneton eh/2me                  | Ψₐ                     | 927.300 915 (25) x 10⁻¹⁶ | J T⁻¹                       |                               |                         |                          |                              |
| in eV T⁻¹                             |                         |                          |                              |                               |                         |                          |                              |
| energy equivalent in eV               |                         |                          |                              |                               |                         |                          |                              |
| Hartree energy e²/4πε₀a₀₀               | E₉                      | 4.359 743 (94) x 10⁻¹⁵   | J                           |                               |                         |                          |                              |
| in eV                                 |                         |                          |                              |                               |                         |                          |                              |
| electron mass                          | mₑ                      | 9.109 382 (15) x 10⁻³¹   | kg                          |                               |                         |                          |                              |
| in MeV                                | mₑ/μₑ                   | 1.342 382 393 (25) x 10⁻¹⁴ | u                           |                               |                         |                          |                              |
| energy equivalent in MeV              | mₑ/μₑ                   | 1.501 989 910 (13) MeV   |                              |                               |                         |                          |                              |
| electron-muon mass ratio              | mₑ/μₑ                   | 1.836 331 71 (12) x 10⁻¹³ |                              |                               |                         |                          |                              |
| electron-proton mass ratio            | mₑ/μₑ                   | 5.446 170 277 (24) x 10⁻¹⁴ |                              |                               |                         |                          |                              |
| electron charge to mass quotient      | mₑ/μₑ                   | -2.127 = 1.758 989 (25) x 10¹¹ |                              |                               |                         |                          |                              |
| Compton wavelength h/2mₑc             | λₐ                      | 2.426 310 217 (35) x 10⁻¹² | m                           |                               |                         |                          |                              |
| classical electron radius a₀₀         | rₐ                      | 1.866 458 8558 (27) x 10⁻¹⁵ | m                           |                               |                         |                          |                              |
| Thomson cross section (σ₈₅/3)c         | σ₈₅/3c                  | 892.478 377 (23) x 10⁻¹⁶ | m²                          |                               |                         |                          |                              |
| electron magnetic moment               | μₑ/μₑ                   | -9.683 570 291 472 89 (23) | mT                           |                               |                         |                          |                              |
| to nuclear magnetron ratio            | μₑ/μₑ                   | -1.838 231 970 92 (80)   |                              |                               |                         |                          |                              |
| to nuclear magnetron radius anomaly   | μₑ/μₑ                   | 1.159 652 181 147 (11) x 10⁻¹³ |                              |                               |                         |                          |                              |
| electron g-factor – 2(1 + αₚ)         | gₚ                      | -2.002 319 304 362 (15) |                              |                               |                         |                          |                              |
| electron-proton magnetic moment ratio | μₑ/μₑ                   | 1.501 989 910 (13) MeV   |                              |                               |                         |                          |                              |
| muon mass in u                         | mₚ                      | 0.114 428 926 (29) u      |                              |                               |                         |                          |                              |
| energy equivalent in MeV              | mₑ/μₑ                   | 105.658 3668 (38) MeV    |                              |                               |                         |                          |                              |
| muon-electron mass ratio              | mₑ/μₑ                   | 206.768 283 (52)         | MeV                         |                               |                         |                          |                              |
| muon magnetic moment                  | μₑ/μₑ                   | 4.940 447 85 (16) x 10⁻²⁶ | J⁻¹ T⁻¹                     |                               |                         |                          |                              |
| to Bohr magneton ratio                | μₑ/μₑ                   | 4.841 970 491 (12) x 10⁻³ |                              |                               |                         |                          |                              |
| to nuclear magnetron ratio            | μₑ/μₑ                   | -8.990 597 05 (23)       |                              |                               |                         |                          |                              |
| (μₑ/μₑ)/(e/h2πmₑ) – 1                 | αₚ                      | 1.165 920 69 (60) x 10⁻³  |                              |                               |                         |                          |                              |

**Energy equivalents**

(1 m⁻¹)c = 299 729 458 Hz

(1 m⁻¹)c/k = 1.483 7752(25) x 10⁻² K

(1 m⁻¹)c/e = 1.239 841 875 (31) x 10⁻⁶ eV

(1 m⁻¹)c/e = 3.335 640 951.1 x 10⁻⁹ m⁻¹