

Table 3.6 Fundamental (bold) and derived units frequently used in science

| | <i>symbol</i> | <i>SI measurement units</i> | <i>symbol</i> | <i>unit dimensions</i> |
|----------------------------|-----------------|----------------------------------|-------------------|---|
| distance | <i>d</i> | meter | m | m |
| mass | <i>m</i> | kilogram | kg | kg |
| time | <i>t</i> | second | s | s |
| electric charge* | <i>Q</i> | coulomb | C | C |
| temperature | <i>T</i> | Kelvin | K | K |
| amount of substance | <i>n</i> | mole | mol | mol |
| luminous intensity | <i>I</i> | candela | cd | cd |
| acceleration | <i>a</i> | meter per second squared | m/s ² | m/s ² |
| area | <i>A</i> | square meter | m ² | m ² |
| capacitance | <i>C</i> | farad | F | C ² ·s ² /kg·m ² |
| concentration | [<i>C</i>] | molar | M | mol/dm ³ |
| density | <i>D</i> | kilogram per cubic meter | kg/m ³ | kg/m ³ |
| electric current | <i>I</i> | ampere | A | C/s |
| electric field intensity | <i>E</i> | newton per coulomb | N/C | kg·m/C·s ² |
| electric resistance | <i>R</i> | ohm | Ω | kg·m ² /C ² ·s |
| emf | ξ | volt | V | kg·m ² /C·s ² |
| energy | <i>E</i> | joule | J | kg·m ² /s ² |
| force | <i>F</i> | newton | N | kg·m/s ² |
| frequency | <i>f</i> | hertz | Hz | s ⁻¹ |
| heat | <i>Q</i> | joule | J | kg·m ² /s ² |
| illumination | <i>E</i> | lux (lumen per square meter) | lx | cd/m ² |
| inductance | <i>L</i> | henry | H | kg·m ² /C ² |
| magnetic flux | φ | weber | Wb | kg·m ² /C·s |
| potential difference | <i>V</i> | volt | V | kg·m ² /C·s ² |
| power | <i>P</i> | watt | W | kg·m ² /s ³ |
| pressure | <i>p</i> | pascal (newton per square meter) | Pa | kg/m·s ² |
| velocity | <i>v</i> | meter per second | m/s | m/s |
| volume | <i>V</i> | cubic meter | m ³ | m ³ |
| work | <i>W</i> | joule | J | kg·m ² /s ² |