

# **Annex III**

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## **Units**

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**Table AIII.1** Basic SI units

Physical Quantity	Unit	
	Name	Symbol
Length	meter	m
Mass	kilogram	kg
Time	second	s
Thermodynamic temperature	kelvin	K
Amount of substance	mole	mol

**Table AIII.2** Multiplication factors

Multiple	Prefix	Symbol	Multiple	Prefix	Symbol
10 <sup>-1</sup>	deci	d	10	deca	da
10 <sup>-2</sup>	centi	c	10 <sup>2</sup>	hecto	h
10 <sup>-3</sup>	milli	m	10 <sup>3</sup>	kilo	k
10 <sup>-6</sup>	micro	μ	10 <sup>6</sup>	mega	M
10 <sup>-9</sup>	nano	n	10 <sup>9</sup>	giga	G
10 <sup>-12</sup>	pico	p	10 <sup>12</sup>	tera	T
10 <sup>-15</sup>	femto	f	10 <sup>15</sup>	peta	P

**Table AIII.3** Special names and symbols for certain SI-derived units

Physical Quantity	Unit		
	Name	Symbol	Definition
Force	newton	N	kg m s <sup>-2</sup>
Pressure	pascal	Pa	kg m <sup>-1</sup> s <sup>-2</sup> (= N m <sup>-2</sup> )
Energy	joule	J	kg m <sup>2</sup> s <sup>-2</sup>
Power	watt	W	kg m <sup>2</sup> s <sup>-3</sup> (= J s <sup>-1</sup> )
Frequency	hertz	Hz	s <sup>-1</sup> (cycles per second)

**Table AIII.4** Decimal fractions and multiples of SI units having special names

Physical quantity	Unit		
	Name	Symbol	Definition
Length	micron	μm	10 <sup>-6</sup> m
Area	hectare	ha	10 <sup>4</sup> m <sup>2</sup>
Volume	litre	L	10 <sup>-3</sup> m <sup>3</sup>
Pressure	bar	bar	10 <sup>5</sup> N m <sup>-2</sup> = 10 <sup>5</sup> Pa
Pressure	millibar	mb	10 <sup>2</sup> N m <sup>-2</sup> = 1 hPa
Mass	tonne	t	10 <sup>3</sup> kg
Mass	gram	g	10 <sup>-3</sup> kg

**Table AIII.5** Other units

Symbol	Description
°C	Degree Celsius (0°C = 273 K approximately) Temperature differences are also given in °C (= K) rather than the more correct form of 'Celsius degrees'
D	Darcy, unit for permeability, 10 <sup>-12</sup> m <sup>2</sup>
ppm	Parts per million (10 <sup>6</sup> ), mixing ratio (μmol mol <sup>-1</sup> )
ppb	Parts per billion (10 <sup>9</sup> ), mixing ratio (nmol mol <sup>-1</sup> )
h	Hour
yr	Year
kWh	Kilowatt hour
MWh	Megawatt hour
MtCO <sub>2</sub>	Megatonnes (1 Mt = 10 <sup>9</sup> kg = 1 Tg) CO <sub>2</sub>
GtCO <sub>2</sub>	Gigatonnes (1 Gt = 10 <sup>12</sup> kg = 1 Pg) CO <sub>2</sub>
tCO <sub>2</sub> MWh <sup>-1</sup>	tonne CO <sub>2</sub> per megawatt hour
US\$ kWh <sup>-1</sup>	US dollar per kilowatt hour