CGS to SI Conversion Tables

February 13, 2018

Quantity	Value (CGS)	Units (CGS)	Value (SI)	Units (SI)
Length	1	cm	10^{-2}	m
Mass	1	g	10^{-3}	kg
Time	1	s	1	s
Velocity	1	$cm \cdot s^{-1}$	10^{-2}	$m \cdot s^{-1}$
Acceleration	1	$Gal\ \left(cm \cdot s^{-2}\right)$	10^{-2}	$m \cdot s^{-2}$
Force	1	$dyn\ \left(g \cdot cm \cdot s^{-2}\right)$	10^{-5}	N
Energy	1	$erg\ \left(g \cdot cm^2 \cdot s^{-2}\right)$	10^{-7}	J
Pressure	1	$Ba\ \left(g \cdot cm^{-1} \cdot s^{-2}\right)$	10^{-1}	Pa
Dynamic Viscosity	1	$P\ \left(g \cdot cm^{-1} \cdot s^{-1}\right)$	10^{-1}	$Pa \cdot s$
Kinematic Viscoity	1	$St\ \left(cm^2 \cdot s^{-1}\right)$	10^{-4}	$m^2 \cdot s^{-1}$
Density	1	$g \cdot cm^{-3}$	10^{3}	$kg \cdot m^{-3}$

Table 1: Conversion from CGS to SI

Quantity	Value (SI)	Units (SI)	Value (CGS)	Units (CGS)
Length	1	m	10^2	cm
Mass	1	kg	10^3	g
Time	1	s	1	s
Velocity	1	$m \cdot s^{-1}$	10^2	$cm \cdot s^{-1}$
Acceleration	1	$m \cdot s^{-2}$	10^2	$cm \cdot s^{-2}$
Force	1	N	10^5	dyn
Energy	1	J	10^7	erg
Pressure	1	Pa	10^1	Ba
Dynamic Viscosity	1	$Pa \cdot s$	10^1	P
Kinematic Viscoity	1	$m^2 \cdot s^{-1}$	10^4	St
Density	1	$kg \cdot m^{-3}$	10^{-3}	$g \cdot cm^{-3}$

Table 2: Conversion from SI to CGS