

UWIS, Physik III, Lösung Serie 1

Thomas Kuster

14. April 2005

1 Umrechnung

	[nm]	[μm]	[Å]	[Hz]	[cm^{-1}]	[eV]
[nm]	x	$10^{-3}x$	$10x$	$10^9 \frac{c}{x}$	$10^7 \frac{1}{x}$	$10^9 \frac{hc}{x}$
HeNe	632.8	$6.328 \cdot 10^{-1}$	$6.328 \cdot 10^3$	$4.74 \cdot 10^{14}$	$1.58 \cdot 10^4$	$3.14 \cdot 10^{-19}$
[μm]	$10^3 x$	x	$10^4 x$	$10^6 \frac{c}{x}$	$10^4 \frac{1}{x}$	$10^6 \frac{hc}{x}$
[Å]	$10^{-1} x$	$10^{-4} x$	x	$10^{10} \frac{c}{x}$	$10^8 \frac{1}{x}$	$10^{10} \frac{hc}{x}$
[Hz]	$10^9 \frac{c}{x}$	$10^6 \frac{c}{x}$	$10^{10} \frac{c}{x}$	x	$10^{-2} \frac{1}{x}$	hx
[cm^{-1}]	$10^{-7} \frac{1}{x}$	$10^{-10} \frac{1}{x}$	$10^{-6} \frac{1}{x}$	$10^2 cx$	x	$10^2 hc x$
CO ₂	$1.06 \cdot 10^{-10}$	$1.06 \cdot 10^{-13}$	$1.06 \cdot 10^{-9}$	$2.83 \cdot 10^{13}$	944.2	$1.87 \cdot 10^{-20}$
[eV]	$10^9 \frac{ch}{x}$	$10^6 \frac{ch}{x}$	$10^{10} \frac{ch}{x}$	$\frac{x}{h}$	$\frac{x}{ch} 10^{-2}$	x