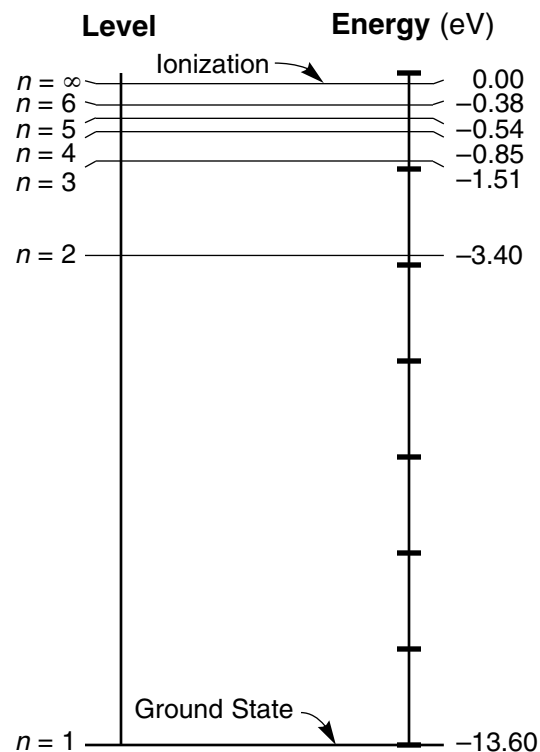


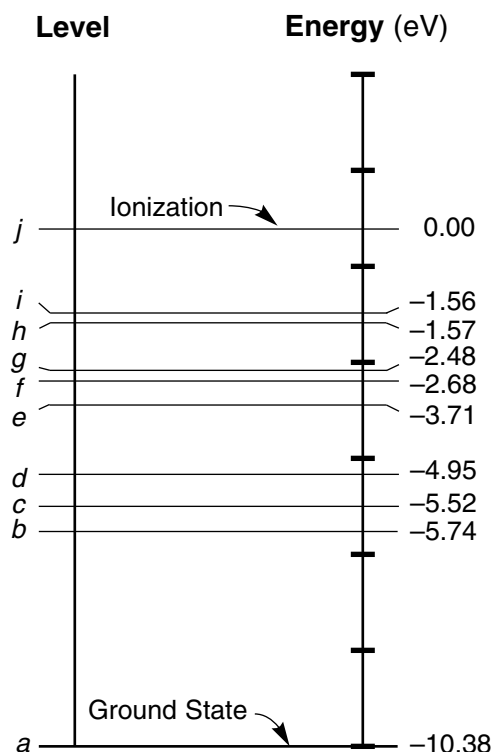
Energy Level Diagrams

Hydrogen



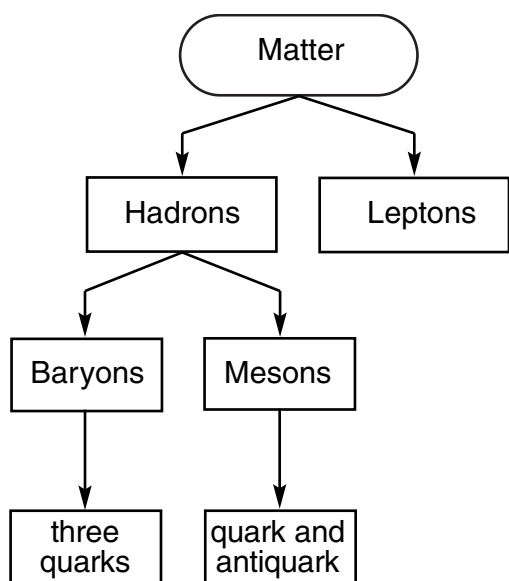
Energy Levels for the Hydrogen Atom

Mercury



A Few Energy Levels for the Mercury Atom

Classification of Matter



Particles of the Standard Model

Quarks

Name	Symbol	Charge
up	u	$+\frac{2}{3}e$
charm	c	$+\frac{2}{3}e$
top	t	$+\frac{2}{3}e$
down	d	$-\frac{1}{3}e$
strange	s	$-\frac{1}{3}e$
bottom	b	$-\frac{1}{3}e$

Leptons

electron	e	$-1e$
muon	μ	$-1e$
tau	τ	$-1e$
electron neutrino	ν_e	0
muon neutrino	ν_μ	0
tau neutrino	ν_τ	0

Note: For each particle, there is a corresponding antiparticle with a charge opposite that of its associated particle.