

Quantenzahlen und Energie eigenwerte

$n = 1$	$l = 0$ (s-Orbital)	$m = 0$	$m_s = \pm \frac{1}{2}$	E_1 (2-fach)
$n = 2$	$l = 0$ (s) $l = 1$ (p)	$m = 0$ $m = -1, 0, 1$	$m_s = \pm \frac{1}{2}$ $m_s = \pm \frac{1}{2}$	E_2 (8-fach)
$n = 3$	$l = 0$ (s) $l = 1$ (p) $l = 2$ (d)	$m = 0$ $m = -1, 0, 1$ $m = -2, -1, 0, 1, 2$	$m_s = \pm \frac{1}{2}$ $m_s = \pm \frac{1}{2}$ $m_s = \pm \frac{1}{2}$	E_3 (18-fach)
$n = 4$	$l = 0$ (s) $l = 1$ (p) $l = 2$ (d) $l = 3$ (f)	$m = 0$ $m = -1, 0, 1$ $m = -2, -1, 0, 1, 2$ $m = -3, -2, -1, 0, 1, 2, 3$	$m_s = \pm \frac{1}{2}$ $m_s = \pm \frac{1}{2}$ $m_s = \pm \frac{1}{2}$ $m_s = \pm \frac{1}{2}$	E_4 (32-fach)

Term schema des Coulomb potentials

