

n	l	m	General Symbol	Radial wave function	Angular wave function	Explicit symbol
1	0	0	1s	$2 \left(\frac{Z}{a_o}\right)^{3/2} e^{-\rho}$	$\frac{1}{2\sqrt{\pi}}$	1s
2	0	0	2s	$2^{-3/2} \left(\frac{Z}{a_o}\right)^{3/2} (2 - \rho)e^{-\rho/2}$	$\frac{1}{2\sqrt{\pi}}$	2s
2	1	0	2p	$\frac{1}{2\sqrt{6}} \left(\frac{Z}{a_o}\right)^{3/2} \rho e^{-\rho/2}$	$\frac{\sqrt{3}}{2\sqrt{\pi}} \cos \theta$	2p _z
2	1	1			$\frac{\sqrt{3}}{2\sqrt{\pi}} \sin \theta \cos \phi$	2p _x
2	1	-1			$-\frac{\sqrt{3}}{2\sqrt{\pi}} \sin \theta \sin \phi$	2p _y
3	0	0	3s	$\frac{2}{81\sqrt{3}} \left(\frac{Z}{a_o}\right)^{3/2} (27 - 18\rho + 2\rho^2)e^{-\rho/3}$	$\frac{1}{2\sqrt{\pi}}$	3s
3	1	0	3p	$\frac{4}{81\sqrt{6}} \left(\frac{Z}{a_o}\right)^{3/2} (6\rho - \rho^2)e^{-\rho/3}$	$\frac{\sqrt{3}}{2\sqrt{\pi}} \cos \theta$	3p _z
3	1	1			$\frac{\sqrt{3}}{2\sqrt{\pi}} \sin \theta \cos \phi$	3p _x
3	1	-1			$\frac{\sqrt{3}}{2\sqrt{\pi}} \sin \theta \sin \phi$	3p _y
3	2	0	3d	$\frac{4}{81\sqrt{30}} \left(\frac{Z}{a_o}\right)^{3/2} \rho^2 e^{-\rho/3}$	$\frac{\sqrt{5}}{4\sqrt{\pi}} (3 \cos^2 \theta - 1)$	3d _{z²}
3	2	1			$\frac{\sqrt{30}}{2^{3/2}\sqrt{\pi}} \sin \theta \cos \theta \cos \phi$	3d _{xz}
3	2	-1			$\frac{\sqrt{30}}{2^{3/2}\sqrt{\pi}} \sin \theta \cos \theta \sin \phi$	3d _{yz}
3	2	2			$\frac{\sqrt{15}}{4\sqrt{\pi}} \sin^2 \theta \cos 2\phi$	3d _{x²-y²}
3	2	-2			$\frac{\sqrt{15}}{4\sqrt{\pi}} \sin^2 \theta \sin 2\phi$	3d _{xy}