1 $\{1, 0, 0\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{a0}}}{\sqrt{\pi}}$

2 $\{2, 0, 0\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{2\,a0}}\left(\frac{r}{a0}-2\right)}{4\sqrt{2\,\pi}}$

3 $\{2, 1, -1\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{2\,a0}-i\,\phi}\,r\sin(\theta)}{8\,a0\sqrt{\pi}}$

4 $\{2, 1, 0\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{2\,a0}}\,r\cos(\theta)}{4\,a0\sqrt{2\,\pi}}$

5 $\{2, 1, 1\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{i\,\phi-\frac{r}{2\,a0}}\,r\sin(\theta)}{8\,a0\sqrt{\pi}}$

6 $\{3, 0, 0\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{3\,a0}}\left(\frac{4\,r^2}{9\,a0^2}-\frac{4\,r}{a0}+6\right)}{18\sqrt{3\,\pi}}$

7 $\{3, 1, -1\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{3\,a0}-i\,\phi}\,r\left(\frac{2\,r}{3\,a0}-4\right)\sin(\theta)}{54\,a0\sqrt{\pi}}$

8 $\{3, 1, 0\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{3\,a0}}\,r\left(\frac{2\,r}{3\,a0}-4\right)\cos(\theta)}{27\,a0\sqrt{2\,\pi}}$

9 $\{3, 1, 1\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{i\,\phi-\frac{r}{3\,a0}}\,r\left(\frac{2\,r}{3\,a0}-4\right)\sin(\theta)}{54\,a0\sqrt{\pi}}$

10 $\{3, 2, -2\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{3\,a0}-2\,i\,\phi}\ r^2\ \sin^2(\theta)}{162\ a0^2\ \sqrt{\pi}}$

11 $\{3, 2, -1\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{3\,a0}-i\,\phi}\ r^2\ \sin(2\,\theta)}{162\ a0^2\ \sqrt{\pi}}$

12 $\{3, 2, 0\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{3\,a0}}\ r^2\ (3\cos(2\,\theta)+1)}{162\ a0^2\ \sqrt{6\,\pi}}$

13 $\{3, 2, 1\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{i\,\phi-\frac{r}{3\,a0}}\ r^2\ \sin(2\,\theta)}{162\ a0^2\ \sqrt{\pi}}$

14 $\{3, 2, 2\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{2\,i\,\phi-\frac{r}{3\,a0}}\ r^2\ \sin^2(\theta)}{162\ a0^2\ \sqrt{\pi}}$

15 $\{4, 0, 0\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{4\,a0}}\left(\frac{r^3}{8\,a0^3}-\frac{3\,r^2}{a0^2}+\frac{18\,r}{a0}-24\right)}{192\ \sqrt{\pi}}$

16 $\{4, 1, -1\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{4\,a0}-i\,\phi}\ r\left(\frac{r^2}{4\,a0^2}-\frac{5\,r}{a0}+20\right)\sin(\theta)}{128\ a0\ \sqrt{10\,\pi}}$

17 $\{4, 1, 0\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{4\,a0}}\ r\left(\frac{r^2}{4\,a0^2}-\frac{5\,r}{a0}+20\right)\cos(\theta)}{128\ a0\ \sqrt{5\,\pi}}$

18 $\{4, 1, 1\}$ $\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{i\,\phi-\frac{r}{4\,a0}}\ r\left(\frac{r^2}{4\,a0^2}-\frac{5\,r}{a0}+20\right)\sin(\theta)}{128\ a0\ \sqrt{10\,\pi}}$

19 $\{4, 2, -2\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{4\,a0}-2\,i\,\phi}\ r^2\left(\frac{r}{2\,a0}-6\right)\sin^2(\theta)}{512\,a0^2\,\sqrt{6\,\pi}}$

20 $\{4, 2, -1\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{4\,a0}-i\,\phi}\ r^2\left(\frac{r}{2\,a0}-6\right)\cos(\theta)\sin(\theta)}{256\,a0^2\,\sqrt{6\,\pi}}$

21 $\{4, 2, 0\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{-\frac{r}{4\,a0}}\ r^2\left(\frac{r}{2\,a0}-6\right)(3\cos(2\,\theta)+1)}{3072\,a0^2\,\sqrt{\pi}}$

22 $\{4, 2, 1\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{i\,\phi-\frac{r}{4\,a0}}\ r^2\left(\frac{r}{2\,a0}-6\right)\cos(\theta)\sin(\theta)}{256\,a0^2\,\sqrt{6\,\pi}}$

23 $\{4, 2, 2\}$ $-\dfrac{\sqrt{\frac{1}{a0^3}}\ e^{2\,i\,\phi-\frac{r}{4\,a0}}\ r^2\left(\frac{r}{2\,a0}-6\right)\sin^2(\theta)}{512\,a0^2\,\sqrt{6\,\pi}}$

24 $\{4, 3, -3\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2}\ e^{-\frac{r}{4\,a0}-3\,i\,\phi}\ r^3\sin^3(\theta)}{6144\,\sqrt{\pi}}$

25 $\{4, 3, -2\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2}\ e^{-\frac{r}{4\,a0}-2\,i\,\phi}\ r^3\cos(\theta)\sin^2(\theta)}{1024\,\sqrt{6\,\pi}}$

26 $\{4, 3, -1\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2}\ e^{-\frac{r}{4\,a0}-i\,\phi}\ r^3\,(5\cos(2\,\theta)+3)\sin(\theta)}{4096\,\sqrt{15\,\pi}}$

27 $\{4, 3, 0\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2}\ e^{-\frac{r}{4\,a0}}\ r^3\cos(\theta)\,(5\cos(2\,\theta)-1)}{6144\,\sqrt{5\,\pi}}$

28 $\{4, 3, 1\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2} e^{i\phi - \frac{r}{4\,a0}}\, r^3\,(5\cos(2\theta)+3)\sin(\theta)}{4096\sqrt{15\pi}}$

29 $\{4, 3, 2\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2} e^{2i\phi - \frac{r}{4\,a0}}\, r^3\cos(\theta)\sin^2(\theta)}{1024\sqrt{6\pi}}$

30 $\{4, 3, 3\}$ $\dfrac{\left(\frac{1}{a0^3}\right)^{3/2} e^{3i\phi - \frac{r}{4\,a0}}\, r^3\sin^3(\theta)}{6144\sqrt{\pi}}$