$$
H_{74} = \begin{bmatrix}
-6\,\mu+3\,U & 0 & 0 & \frac{t}{\sqrt{2+\sqrt{2}}}+\frac{3\,t}{\sqrt{2\,(2+\sqrt{2})}} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -\left(\sqrt{\frac{3}{2\,(2+\sqrt{2})}}\,t\right)+\sqrt{\frac{3}{2+\sqrt{2}}}\,t & 0 \\
0 & -6\,\mu+3\,U & 0 & -\left(\frac{t}{\sqrt{4-2\,\sqrt{2}}}\right)-\sqrt{\frac{2}{2-\sqrt{2}}}\,t+\frac{t}{\sqrt{2-\sqrt{2}}} & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & \sqrt{\frac{3}{4-2\,\sqrt{2}}}\,t+\sqrt{\frac{3}{2-\sqrt{2}}}\,t & 0 \\
0 & 0 & -6\,\mu+U & 0 & 3\,t & 0 & 0 & 0 & -t & -(\sqrt{2}\,t) & -(\sqrt{3}\,t) & -(\sqrt{6}\,t) & 0 & 0 \\
\frac{t}{\sqrt{2+\sqrt{2}}}+\frac{3\,t}{\sqrt{2\,(2+\sqrt{2})}} & -\left(\frac{t}{\sqrt{4-2\,\sqrt{2}}}\right)-\sqrt{\frac{2}{2-\sqrt{2}}}\,t+\frac{t}{\sqrt{2-\sqrt{2}}} & 0 & -6\,\mu+2\,U & t & 0 & 0 & 0 & 0 & \frac{-3\,t}{\sqrt{2}} & 0 & -\left(\sqrt{\frac{3}{2}}\,t\right) & 0 & 0 \\
0 & 0 & 3\,t & t & -6\,\mu+2\,U & -(\sqrt{2}\,t) & 0 & 0 & 0 & 0 & 0 & 0 & -(\sqrt{3}\,t) & \sqrt{6}\,t \\
0 & 0 & 0 & 0 & -(\sqrt{2}\,t) & -6\,\mu+2\,U & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & -6\,\mu & 0 & \frac{2\,t}{\sqrt{2+\sqrt{2}}} & 0 & -\left(\sqrt{\frac{6}{2+\sqrt{2}}}\,t\right) & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & -6\,\mu & \frac{-\left(\sqrt{\frac{s-4\,\sqrt{2}}{12-8\,\sqrt{2}}}\,t\right)}{2}+2\,\sqrt{\frac{4-2\,\sqrt{2}}{12-8\,\sqrt{2}}}\,t+\sqrt{\frac{2-\sqrt{2}}{12-8\,\sqrt{2}}}\,t & 0 & \sqrt{\frac{6}{2-\sqrt{2}}}\,t & 0 & 0 \\
0 & 0 & -t & 0 & 0 & 0 & \frac{2\,t}{\sqrt{2+\sqrt{2}}} & \frac{-\left(\sqrt{\frac{s-4\,\sqrt{2}}{12-8\,\sqrt{2}}}\,t\right)}{2}+2\,\sqrt{\frac{4-2\,\sqrt{2}}{12-8\,\sqrt{2}}}\,t+\sqrt{\frac{2-\sqrt{2}}{12-8\,\sqrt{2}}}\,t & -6\,\mu+U & 0 & 0 & 0 & 2\,\sqrt{3}\,t & 0 \\
0 & 0 & -(\sqrt{2}\,t) & \frac{-3\,t}{\sqrt{2}} & 0 & 0 & 0 & 0 & 0 & -6\,\mu+U & 0 & 0 & \sqrt{\frac{3}{2}}\,t & 0 \\
0 & 0 & -(\sqrt{3}\,t) & 0 & 0 & 0 & -\left(\sqrt{\frac{6}{2+\sqrt{2}}}\,t\right) & \sqrt{\frac{6}{2-\sqrt{2}}}\,t & 0 & 0 & -6\,\mu+U & 0 & 2\,t & -2\,\sqrt{2}\,t \\
0 & 0 & -(\sqrt{6}\,t) & -\left(\sqrt{\frac{3}{2}}\,t\right) & 0 & 0 & 0 & 0 & 0 & 0 & 0 & -6\,\mu+U & \frac{t}{\sqrt{2}} & 0 \\
-\left(\sqrt{\frac{3}{2\,(2+\sqrt{2})}}\,t\right)+\sqrt{\frac{3}{2+\sqrt{2}}}\,t & \sqrt{\frac{3}{4-2\,\sqrt{2}}}\,t+\sqrt{\frac{3}{2-\sqrt{2}}}\,t & 0 & 0 & -(\sqrt{3}\,t) & 0 & 0 & 0 & 2\,\sqrt{3}\,t & \sqrt{\frac{3}{2}}\,t & 2\,t & \frac{t}{\sqrt{2}} & -6\,\mu+2\,U & 0 \\
0 & 0 & 0 & 0 & \sqrt{6}\,t & 0 & 0 & 0 & 0 & 0 & -2\,\sqrt{2}\,t & 0 & 0 & -6\,\mu+2\,U
\end{bmatrix}
$$