$$K_{44}^{2} = \begin{bmatrix} \frac{-6\,U}{t} & \frac{3\left(1+\mathbf{i}\sqrt{3}\right)U}{2\sqrt{2}\,t} & \frac{-\mathbf{i}\sqrt{\frac{3}{2}}\,U^{2}}{t^{2}} \\ \frac{3\left(1-\mathbf{i}\sqrt{3}\right)U}{2\sqrt{2}\,t} & \frac{-9\,U}{2\,t} & \frac{\left(3+\mathbf{i}\sqrt{3}\right)U^{2}}{4\,t^{2}} \\ \frac{\mathbf{i}\sqrt{\frac{3}{2}}\,U^{2}}{t^{2}} & \frac{\left(3-\mathbf{i}\sqrt{3}\right)U^{2}}{4\,t^{2}} & \frac{-15\,U}{2\,t} \end{bmatrix}$$