$$K_{54}^{1} = \begin{bmatrix} -\mathbf{i}\sqrt{3} & \frac{\frac{\mathbf{i}}{2}\left(3\,\mathbf{i}+\sqrt{3}\right)U}{t} \\ \frac{\left(3+\mathbf{i}\sqrt{3}\right)U}{2\,t} & -\mathbf{i}\sqrt{3} \end{bmatrix}$$