$$K_{39}^{1} \quad = \quad \left[\begin{array}{cc} \mathbf{i}\sqrt{3} & \frac{\frac{-\mathbf{i}}{2}\left(-3\,\mathbf{i}+\sqrt{3}\right)U}{t} \\ \frac{\left(3-\mathbf{i}\sqrt{3}\right)U}{2\,t} & \mathbf{i}\sqrt{3} \end{array} \right]$$