$$E_c = \frac{1}{2}mv^2$$

$$E_{cf} = \frac{1}{2}(m_1 + m_2)v^2$$

$$E_{cf} = \frac{1}{2}(0.51424 + 0.50962) \cdot 0.79^2$$

$$E_{cf} = 0.31487 \,\text{J}$$