

OUTGOING MUON COULOMB DISTORTION

EFFECTIVE MOMENTUM APPROXIMATION

$$e^{i \vec{k}' \cdot \vec{r}} \longrightarrow \frac{|\vec{k}'_{\text{EFF.}}|}{|\vec{k}'|} e^{i \vec{k}'_{\text{EFF.}} \cdot \vec{r}}$$

$$\vec{k}'_{\text{EFF.}} = \vec{k}' + V_C \frac{\vec{k}'}{|\vec{k}'|}$$

$$V_C = \begin{cases} \frac{3}{2} \frac{Ze}{R} & R \approx 1.2 A^{1/3} \text{ fm} \text{ uniform spherical charge} \\ 2.5 \text{ MeV} & \text{from studies of electron scattering} \end{cases}$$