

## REPULSIVE CORE POTENTIAL AND ELASTIC HEAVY-ION COLLISIONS

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### S u m m a r y

Within the optical model with a repulsive core, the elastic collisions of  $^{16}\text{O}+^{12}\text{C}$  at various energies are discussed. Due to the repulsive core, the cross-sections rise strongly for backward angles. By using the near-side/far-side decomposition method, it is shown that the near-side component of the scattering amplitude mainly contributes to the elastic scattering cross-sections for forward and backward angles. The repulsive core of the  $^{16}\text{O}+^{12}\text{C}$  potential occurs at small distances.