Elastic Collisions of Electrons and Positrons by Na Atoms [*)]

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A complex optical potential, whose real part includes the static, exchange, and polarization components while the imaginary part comprises with an absorptive component, is used to evaluate the differential, integrated, momentum transfer, and viscosity cross sections for the elastic collisions of electrons and positrons by Na atoms in the energy region $10<E<1000$ *eV*. To calculate various cross sections, the relativistic Dirac Partial wave techniques are employed to obtain the required scattering amplitudes. As compared to other available theoretical cross sections our results record good agreement with the experimental values.

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