A comprehensive study of electron collisions with heavy noble gases\textsuperscript{1} M. ALLAN, University of Fribourg, K. FRANZ, J. BÖMMELS, T.H. HOFFMANN, M.-W. RUF, H. HOTOP, University of Kaiserslautern, O. ZATSARINNY, K. BARTSCHAT, Drake University — Over the past few years, our group has extensively studied elastic and inelastic electron scattering from the heavy noble gases Ne, Ar, Kr, and Xe. High-resolution experimental data, obtained in Fribourg and Kaiserslautern (see, e.g., [1-4] and references therein) were compared with theoretical predictions from semi-relativistic and fully relativistic $B$-spline $R$-matrix (close-coupling) calculations (see [5] and references therein). In most cases the agreement between experiment and theory is excellent, thus providing confidence in suggesting extensive datasets for state-to-state transitions from these calculations for use in the modelling of discharges involving heavy noble gases.

\begin{thebibliography}{5}
\bibitem{1} J. Bömmels \textit{et al.}, Phys. Rev. A \textbf{71} (2005), 012704.
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