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The LXCat project S. PANCHESHNYI, M. OKHRIMOVSKAYA, S. CHOWDURY, G. HAGELAAR, L.C. PITCHFORD, LAPLACE (LAboratoire PLAsma et Conversion d'Energie), CNRS and Universite de Toulouse, France, A.V. PHELPS, retired, JILA, NIST and University of Colorado, Boulder, CO, USA — The goal of the LXCat (or ELECtron SCATtering) project is the establishment of a set of web-based tools and open access databases relevant to modeling low temperature plasmas and plasma chemistry. We have focused over the past year on developing web-based tools for access, display, and processing of data concerning the electrons in typical low temperature plasma conditions. From the web site, users can access compilations of complete sets of electron scattering data for various gases developed by different. New contributors are welcome and can get password access to the server and then use the on-line tools to upload data and plot/compare data. An on-line version of the two-term Boltzmann solver, BOLSIG+, was developed so that electron transport and rate coefficients in pure gases and gas mixtures can be calculated using available cross section data as input. Results are displayed in graphical form or in a text file that can be downloaded from the LXCat site. We are hoping to make this part of a larger, community-wide project on data for modeling low-temperature plasmas.

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