POST-COLLISION INTERACTION AT LOW-ENERGY ELECTRON IMPACT EXCITATION OF Cd ATOM

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Summary

Optical excitation functions (OEFs) for 6 spectral lines emerging from n^1S_0 levels ($n=6 \div 11$) of a Cd atom are studied. The investigation was carried out on an experimental setup with a vapor-filled collision cell and a hypocycloidal electron monochromator. The energy spread of electrons was about 50 meV. In the optical excitation functions measured from the excitation threshold up to 15 eV more than 50 features were detected. In the energy range 10.9–12.4 eV near the thresholds of 4 autoionizing states of a Cd atom, the post-collision interaction (PCI) of ejected and scattered electrons was found.