

## **COWAN CODE AND DATA FOR SPECTRAL LINE BROADENING PARAMETERS**

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Cowan code is a program for ab initio non-relativistic atomic parameters calculations. For a better precision of Stark broadening parameter calculations within the semiclassical perturbation, and modified semiempirical approaches we need a sufficiently complete set of atomic data. With the Cowan code it is possible to obtain missing atomic energy levels and to calculate needed oscillator strengths with better precision than within Coulomb approximation. Using combination of experimental and theoretical atomic parameters, calculated by Cowan code, we present Stark broadening data of spectral lines of S I, S II, S III, S IV and S V within the modified semiempirical approach. Also we compare and discuss differences when Cowan code and Coulomb approximation are used.