

The ABINIT software project : basic ideas and recent developments.

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The basic ideas of the ABINIT project (<http://www.abinit.org>) are reviewed : reliability, portability, readability and freedom of sources are emphasized, in a sophisticated plane-wave pseudopotential code (more than 100000 lines of code ; 300 automatic tests)

Some current developments in the ABINIT package are also briefly presented : (1) implementation of the PAW formalism; (2) GW capabilities; (3) the computation of electro-optic and Raman tensor coefficients, using the $2n+1$ theorem of perturbation theory; (4) input/output files based on the Chemical Markup Language; (5) Shubnikov magnetic space groups.

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