GALAXY ADVANCED ENGINEERING, INC.
1160 CHESS DRIVE, SUITE 6
FOSTER CITY, CALIFORNIA 94404
Tel: (650) 525-1314
Fax:(650) 525-0406
E-mail GAEINC@BEST.COM

ELTRAN/PC

An One - Dimensional Monte Carlo Electron Transport Code for PC

ELTRAN/PC is a modified Fortran program which employs a quasi-Monte Carlo computational scheme to compute one-dimensional, electron deposition, in semi-infinite composite slabs. It has the capability of computing either the energy deposition profile distribution of stopped electrons or the spectral properties of electrons transmitted by a thin slab, which may be solid, liquid, or gas. The incident electrons may be mono-energetic or they may form a spectrum; they may be incident perpendicular or at an angle to the slab.

ELTRAN/PC employs a quasi Monte Carlo scheme which involves calculation of the trajectory of an individual electron. This calculation is repeated until a sufficient number of electrons or case histories has been accumulated so that the user obtains the desired degree of statistical precision. Instead of considering each of the tens of thousands of individual collisions, the electron is given an incremental displacement, and the small energy loss and small effective scattering angle are computed. The electron is given additional incremental displacements until the electron is absorbed (stopped), backscattered or transmitted.

Again this incrementation is repeated for additional electrons until the desired number of case histories is run. The energy loss is computed using the continuous slowing-down approximation, with the effects of density, range straggling, and bremsstrahlung included. The scattering angle is computed by means of the Moliere multiple scattering angle distribution.

We at **Galaxy Advanced Engineering Inc (GAE).** have taken the steps to produced the PC version,(i.e. **ELTRAN/PC**). Currently the program is operating on IBM or 100% compatibles under PC/DOS or PC/Windows95/98 and NT operating system. To order this code, please send your company's purchase order to **Galaxy Advanced Engineering Inc.** or call us at 650-525-1314