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S3/PC

A Kernel Integration Code System – Multi-Group Gamma-Ray Scattering Computer Code for PC

S3/PC is a generic code is code designated for a series of computer programs that enable the user to estimate gamma-ray scattering from a point source to a series of point detectors. **S3/PC** evaluates the uncollided flux at specified scatter points and multiplies it by the product of the differential cross section for scattering toward the detector point and the number of electrons in the elemental volume associated with the scatter point, which is assumed to be at the center of the elemental volume. Attenuation through materials between the scatter point and the detector point is characteristic of the degraded energy as determined by the incident energy, the scattering angle, and the angle-energy relationships.

The name **S3/PC** was chosen since the scattering calculation has three steps: calculation of the flux arriving at the scattered from the point source, calculation of the differential scattering cross section, and calculation of the scattered flux arriving at detector. Detector response is recorded as a function of incident and scattered energy both with and without application of buildup on the path between the scatter point and the dose point. Conversion factors can be used to obtain results in any desired units. Arrival intensities, energies, and incident-direction cosines are stored to eliminate recalculation for subsequent detector locations.

We at **Galaxy Advanced Engineering, Inc. (GAE)** have taken steps to make this code available on your PC platform or %100 compatible under PC/DOS or MS/Windows95/98/2000/XP/ME and NT operating system. To obtain the code and more information, please contact our company or call us at 650-740-3244.