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KUX/PC

Medical X-ray Shielding Calculation

The **KUX/PC** code calculates the thickness of barrier materials required to bring the weekly exposure near an X-ray or mammography room down to the maximum permitted (or some other user-specified level).

KUX/PC uses X-ray shielding calculation techniques using the constant potential X-ray and mammography transmission data from the literatures. Briefly, the theory states that the required shielding thickness, x, can be calculated if you know the primary and scatter Kuxi's and leakage Blxi's for each i x-ray tube calculated separately. The result is a transcendental equation to be satisfied for the shielding thickness. The variable Kux and Blx are defined in NCRP Report 49 as the quotient of exposure at unit distance and workload (Kux) and transmission factor for leakage x rays (Blx). Shielding data from the literature are included in DATA statement for lead, concrete, gypsum, steel, and plate glass.

To order this code, please contact our company at (650) 740-3244 or send your e-mail to gaeinc@gaeinc.com. The software runs under PC/Window95/98/2000/ME/XP or NT as well as DOS Operating Systems.