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DOSE DEPOSITED DURING A RADIOLOGICAL EXAMINATIONS USING MONTE CARLO SIMULATION

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In this study we have developed a program based on the Monte Carlo method to simulate the propagation of photons through living matter and subsequently calculate the absorbed dose taking into account the types of interactions of the photons with matter at lo energy .To complete this study, we adopted a cylindrical geometry to simulate the thorax of a child as a target organ by considering water as a material equivalent to biological tissues, and make a comparative study using the material composed of HCNO atoms. However, the results obtained by our program are in close agreement with the results given by the MCNP code.