The main purpose of the study: Development of a primary standard of air kerma for high energy range of photons ($^{60}\text{Co}$).
Energy dependence

- The measurement
  - Narrow X-ray beam spectra
  - $^{137}$Cs and $^{60}$Co

- The simulation
  - Monoenergetic photons 0.033 - 1.332 MeV
  - Narrow X-ray beam spectra
  - $^{137}$Cs and $^{60}$Co
Correction factor of the wall attenuation and scatter

![Graph showing the relationship between wall thickness and relative response. The equation y = -0.347x + 1.39; R² = 1 is given.]

<table>
<thead>
<tr>
<th>Primary photon spectrum</th>
<th>Effective photon energy</th>
<th>$K_{\text{wall}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$^{137}\text{Cs}$</td>
<td>0.569 MeV</td>
<td>1.0156</td>
</tr>
<tr>
<td>$^{60}\text{Co}$</td>
<td>1.02 MeV</td>
<td>1.0139</td>
</tr>
</tbody>
</table>