* Abstract
* Introduction:
  + HPGes/MCNP/Optimization Codes
  + Previous Work
  + The Problem:
  + Experimental Data
* Procedure:
  + Creating the Model
  + Creating the Code
* Results
  + Efficiency curves
  + Optimal Parameters
  + Adjoint Flux?
* Conclusions

|  |  |  |  |
| --- | --- | --- | --- |
| **Gamma-Ray Energy [keV]** | **Nuclide** | **Activity [µCi]** | **Gammas per Second** |
| 60 | Am-241 | 0.02941 | 391.7 |
| 88 | Cd-109 | 0.2707 | 363.6 |
| 122 | Co-157 | 0.01019 | 322.7 |
| 159 | Te-123 | 0.01403 | 436.1 |
| 320 | Cr-51 | 0.3389 | 1236 |
| 392 | Sn-113 | 0.05109 | 1227 |
| 514 | Sr-85 | 0.06171 | 2247 |
| 662 | Cs-137 | 0.04325 | 1362 |
| 898 | Y-88 | 0.09633 | 3347 |
| 1173 | Co-60 | 0.05101 | 1885 |
| 1333 | Co-60 | 0.05101 | 1887 |
| 1836 | Y-88 | 0.09622 | 3539 |

* Energies were kept constant with manufacturer provided documentation
* Source Uncertainty for each energy was 3.1%