Fricke dosimetry: GC5000

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dose Delivered  In kGy | Dose Rate | Time of Irradiation in h | Dose distribution at different positions of irradiation cell determined by Fricke Dosimetry | | | | | | | | | |
| Centre | | Top | | Bottom | | Right | | Left | |
| ΔA a.u. | Df in Gy | ΔA a.u. | Df in Gy | ΔA a.u. | Df in Gy | ΔA a.u. | Df in Gy | ΔA a.u. | Df in Gy |
| 10 | 5.291 kGy/h | 0.0018 | 0.044 | 11.87 | 0.041 | 11.04 | 0.04 | 10.76 | 0.06 | 16.29 | 0.05 | 15.18 |
| 25 | 0.0047 | 0.093 | 25.40 | 0.085 | 23.19 | 0.08 | 22.36 | 0.108 | 29.54 | 0.10 | 28.99 |
| 50 | 0.0094 | 0.176 | 48.32 | 0.163 | 44.73 | 0.16 | 43.90 | 0.205 | 56.60 | 0.20 | 55.77 |
| 100 | 0.0189 | 0.36 | 99.12 | 0.328 | 90.29 | 0.32 | 89.46 | 0.423 | 116.5 | 0.41 | 114.0 |
| 150 | 0.0283 | 0.548 | 151.0 | 0.517 | 142.4 | 0.51 | 143.0 | 0.612 | 168.7 | 0.60 | 166.7 |
| 200 | 0.0378 | 0.722 | 199.0 | 0.696 | 191.9 | 0.69 | 190.2 | 0.792 | 218.4 | 0.80 | 220.8 |
| 300 | 0.0567 | 1.1 | 303.4 | 1.02 | 281.3 | 1.03 | 284.1 | 1.2 | 331.0 | 1.24 | 342.1 |

We have performed experiment by keeping the sample at the centre of GC 5000.

Gamma chamber (GC5000) was calibrated by using Fricke dosimetry method.