

## APPENDIX A

# S value [Gy/(MBq\*h)] for <sup>90</sup>Y locoregional treatment BAT regions

### cavity volume 0.5 ml

radius of shell in BAT	geometry 1 hypotesis 1	geometry 1 hypotesis 2 f=1
0.6	1.64E-01	4.58E-01
0.7	6.98E-02	1.97E-01
0.8	2.93E-02	8.48E-02
0.9	1.15E-02	3.94E-02
1	4.05E-03	1.79E-02
1.1	1.27E-03	7.51E-03
1.3	1.96E-04	1.75E-03
1.5	1.06E-05	1.20E-04
1.7	4.36E-06	5.82E-06
1.9	3.08E-06	3.02E-06

### cavity volume 4.2 ml

radius of shell in BAT	geometry 1 hypotesis 1	geometry 1 hypotesis 2 f=1
1.1	1.67E-02	1.26E-01
1.2	7.52E-03	5.85E-02
1.3	3.37E-03	2.67E-02
1.4	1.44E-03	1.30E-02
1.5	5.63E-04	6.18E-03
1.6	1.92E-04	2.68E-03
1.7	5.63E-05	1.02E-03
1.8	1.48E-05	3.25E-04

### cavity volume 7.2 ml

radius of shell in BAT	geometry 1 hypotesis 1	geometry 1 hypotesis 2 f=1	geometry 2 d = 2 mm	geometry 2 d = 3 mm	geometry 2 d = 4 mm	geometry 2 d = 5 mm	geometry 2 d = 6 mm
1.3	9.34E-03	8.86E-02	6.59E-02	5.05E-02	4.03E-02	3.32E-02	2.80E-02
1.4	4.26E-03	4.22E-02	5.90E-02	5.17E-02	4.30E-02	3.61E-02	3.07E-02
1.5	1.96E-03	1.94E-02	2.79E-02	4.05E-02	3.84E-02	3.37E-02	2.93E-02
1.6	8.43E-04	9.56E-03	1.32E-02	1.93E-02	2.89E-02	2.88E-02	2.61E-02
1.7	3.37E-04	4.54E-03	6.43E-03	9.18E-03	1.38E-02	2.12E-02	2.19E-02
1.8	1.18E-04	1.99E-03	2.99E-03	4.42E-03	6.55E-03	1.02E-02	1.60E-02
2	2.19E-05	4.92E-04	8.39E-04	1.38E-03	2.21E-03	3.47E-03	5.53E-03
2.2	2.86E-06	3.63E-05	8.61E-05	1.86E-04	3.71E-04	6.92E-04	1.21E-03
2.4	1.80E-06	2.62E-06	4.61E-06	1.31E-05	3.56E-05	9.08E-05	2.03E-04
2.6	1.48E-06	1.62E-06	1.71E-06	1.78E-06	2.79E-06	6.77E-06	2.02E-05

### cavity volume 14.1 ml

radius of shell in BAT	geometry 1 hypotesis 1	geometry 1 hypotesis 2 f=1
1.6	4.67E-03	3.21E-02
1.7	2.16E-03	1.49E-02
1.8	1.01E-03	7.38E-03
1.9	4.44E-04	3.55E-03
2	1.79E-04	1.56E-03
2.1	6.42E-05	6.06E-04
2.3	1.27E-05	1.19E-04
2.5	2.08E-06	6.49E-06
2.7	1.38E-06	1.59E-06
2.9	1.23E-06	1.26E-06

### cavity volume 33.5 ml

radius of shell in BAT	geometry 1 hypotesis 1	geometry 1 hypotesis 2 f=1
2.1	1.93E-03	1.80E-02
2.2	9.07E-04	8.49E-03
2.3	4.30E-04	4.28E-03
2.4	1.93E-04	2.08E-03
2.5	7.84E-05	9.25E-04
2.6	2.76E-05	3.63E-04
2.8	6.00E-06	7.40E-05
3	1.27E-06	3.97E-06
3.2	9.16E-07	1.06E-06
3.4	7.97E-07	9.28E-07

### cavity volume 65.4 ml

radius of shell in BAT	geometry 1 hypotesis 1	geometry 1 hypotesis 2 f=1
2.6	9.70E-04	1.16E-02
2.7	4.60E-04	5.48E-03
2.8	2.19E-04	2.79E-03
2.9	9.90E-05	1.36E-03
3	4.06E-05	6.12E-04
3.1	1.50E-05	2.41E-04
3.2	7.14E-06	1.03E-04
3.4	8.73E-07	3.06E-06
3.6	7.04E-07	8.33E-07
3.8	5.71E-07	6.84E-07