

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

U-235

| Zeit (d)    | Inhalation Typ F |          |          |          | Inhalation Typ M |          |          |          |
|-------------|------------------|----------|----------|----------|------------------|----------|----------|----------|
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,95E-02         | 1,40E-02 | 8,20E-03 | 4,27E-03 | 1,54E-01         | 1,06E-01 | 5,64E-02 | 2,67E-02 |
| 2           | 1,98E-02         | 1,43E-02 | 8,44E-03 | 4,45E-03 | 2,91E-01         | 2,01E-01 | 1,06E-01 | 4,94E-02 |
| 3           | 2,01E-02         | 1,45E-02 | 8,62E-03 | 4,58E-03 | 4,23E-01         | 2,94E-01 | 1,53E-01 | 7,12E-02 |
| 3,5         | 2,02E-02         | 1,46E-02 | 8,69E-03 | 4,64E-03 | 4,88E-01         | 3,39E-01 | 1,76E-01 | 8,19E-02 |
| 4           | 2,03E-02         | 1,46E-02 | 8,77E-03 | 4,69E-03 | 5,52E-01         | 3,84E-01 | 1,99E-01 | 9,23E-02 |
| 5           | 2,04E-02         | 1,48E-02 | 8,90E-03 | 4,79E-03 | 6,78E-01         | 4,73E-01 | 2,44E-01 | 1,13E-01 |
| 6           | 2,06E-02         | 1,49E-02 | 9,01E-03 | 4,87E-03 | 8,02E-01         | 5,60E-01 | 2,89E-01 | 1,33E-01 |
| 7           | 2,07E-02         | 1,50E-02 | 9,12E-03 | 4,95E-03 | 9,23E-01         | 6,45E-01 | 3,32E-01 | 1,53E-01 |
| 8           | 2,09E-02         | 1,52E-02 | 9,21E-03 | 5,02E-03 | 1,04E+00         | 7,30E-01 | 3,75E-01 | 1,72E-01 |
| 9           | 2,10E-02         | 1,53E-02 | 9,30E-03 | 5,09E-03 | 1,16E+00         | 8,13E-01 | 4,17E-01 | 1,91E-01 |
| 10          | 2,11E-02         | 1,54E-02 | 9,39E-03 | 5,15E-03 | 1,28E+00         | 8,96E-01 | 4,58E-01 | 2,09E-01 |
| 11          | 2,12E-02         | 1,55E-02 | 9,47E-03 | 5,21E-03 | 1,39E+00         | 9,77E-01 | 4,99E-01 | 2,28E-01 |
| 12          | 2,13E-02         | 1,55E-02 | 9,54E-03 | 5,26E-03 | 1,50E+00         | 1,06E+00 | 5,40E-01 | 2,46E-01 |
| 13          | 2,14E-02         | 1,56E-02 | 9,62E-03 | 5,32E-03 | 1,62E+00         | 1,14E+00 | 5,80E-01 | 2,64E-01 |
| 14          | 2,15E-02         | 1,57E-02 | 9,69E-03 | 5,37E-03 | 1,73E+00         | 1,22E+00 | 6,20E-01 | 2,82E-01 |
| 15          | 2,16E-02         | 1,58E-02 | 9,75E-03 | 5,42E-03 | 1,84E+00         | 1,30E+00 | 6,59E-01 | 2,99E-01 |
| 20          | 2,20E-02         | 1,61E-02 | 1,01E-02 | 5,64E-03 | 2,37E+00         | 1,68E+00 | 8,51E-01 | 3,85E-01 |
| 30          | 2,27E-02         | 1,67E-02 | 1,06E-02 | 6,00E-03 | 3,38E+00         | 2,40E+00 | 1,21E+00 | 5,46E-01 |
| 40          | 2,32E-02         | 1,71E-02 | 1,09E-02 | 6,27E-03 | 4,32E+00         | 3,08E+00 | 1,55E+00 | 6,96E-01 |
| 45          | 2,34E-02         | 1,73E-02 | 1,11E-02 | 6,38E-03 | 4,77E+00         | 3,40E+00 | 1,71E+00 | 7,68E-01 |
| 50          | 2,36E-02         | 1,75E-02 | 1,12E-02 | 6,48E-03 | 5,20E+00         | 3,71E+00 | 1,87E+00 | 8,37E-01 |
| 60          | 2,39E-02         | 1,77E-02 | 1,14E-02 | 6,64E-03 | 6,02E+00         | 4,30E+00 | 2,16E+00 | 9,67E-01 |
| 70          | 2,42E-02         | 1,79E-02 | 1,16E-02 | 6,78E-03 | 6,79E+00         | 4,85E+00 | 2,43E+00 | 1,09E+00 |
| 80          | 2,44E-02         | 1,81E-02 | 1,18E-02 | 6,88E-03 | 7,50E+00         | 5,36E+00 | 2,69E+00 | 1,20E+00 |
| 90          | 2,45E-02         | 1,83E-02 | 1,19E-02 | 6,97E-03 | 8,17E+00         | 5,84E+00 | 2,93E+00 | 1,31E+00 |
| 100         | 2,47E-02         | 1,84E-02 | 1,20E-02 | 7,05E-03 | 8,79E+00         | 6,28E+00 | 3,15E+00 | 1,41E+00 |
| 120         | 2,49E-02         | 1,86E-02 | 1,22E-02 | 7,17E-03 | 9,91E+00         | 7,09E+00 | 3,55E+00 | 1,59E+00 |
| 180         | 2,54E-02         | 1,90E-02 | 1,25E-02 | 7,45E-03 | 1,25E+01         | 8,95E+00 | 4,48E+00 | 2,00E+00 |
| 200         | 2,56E-02         | 1,91E-02 | 1,26E-02 | 7,52E-03 | 1,32E+01         | 9,42E+00 | 4,72E+00 | 2,11E+00 |
| 300         | 2,62E-02         | 1,97E-02 | 1,31E-02 | 7,88E-03 | 1,54E+01         | 1,10E+01 | 5,53E+00 | 2,47E+00 |
| 360         | 2,66E-02         | 2,00E-02 | 1,34E-02 | 8,08E-03 | 1,62E+01         | 1,16E+01 | 5,81E+00 | 2,60E+00 |
| 365         | 2,67E-02         | 2,01E-02 | 1,34E-02 | 8,10E-03 | 1,63E+01         | 1,17E+01 | 5,83E+00 | 2,61E+00 |
| 400         | 2,69E-02         | 2,03E-02 | 1,36E-02 | 8,22E-03 | 1,66E+01         | 1,19E+01 | 5,95E+00 | 2,66E+00 |
| 500         | 2,75E-02         | 2,08E-02 | 1,40E-02 | 8,55E-03 | 1,73E+01         | 1,24E+01 | 6,19E+00 | 2,76E+00 |
| 600         | 2,81E-02         | 2,13E-02 | 1,45E-02 | 8,89E-03 | 1,76E+01         | 1,26E+01 | 6,31E+00 | 2,82E+00 |
| 700         | 2,88E-02         | 2,19E-02 | 1,50E-02 | 9,22E-03 | 1,78E+01         | 1,28E+01 | 6,39E+00 | 2,85E+00 |
| 800         | 2,94E-02         | 2,24E-02 | 1,54E-02 | 9,56E-03 | 1,79E+01         | 1,28E+01 | 6,43E+00 | 2,87E+00 |
| 900         | 3,00E-02         | 2,29E-02 | 1,59E-02 | 9,89E-03 | 1,80E+01         | 1,29E+01 | 6,45E+00 | 2,88E+00 |
| 1000        | 3,07E-02         | 2,35E-02 | 1,63E-02 | 1,02E-02 | 1,80E+01         | 1,29E+01 | 6,46E+00 | 2,89E+00 |
| 2000        | 3,69E-02         | 2,87E-02 | 2,08E-02 | 1,35E-02 | 1,81E+01         | 1,30E+01 | 6,49E+00 | 2,90E+00 |
| 3000        | 4,30E-02         | 3,39E-02 | 2,53E-02 | 1,68E-02 | 1,81E+01         | 1,30E+01 | 6,49E+00 | 2,90E+00 |
| 4000        | 4,90E-02         | 3,90E-02 | 2,96E-02 | 2,00E-02 | 1,81E+01         | 1,30E+01 | 6,49E+00 | 2,90E+00 |
| 5000        | 5,49E-02         | 4,40E-02 | 3,39E-02 | 2,31E-02 | 1,81E+01         | 1,30E+01 | 6,49E+00 | 2,90E+00 |
| 6000        | 6,07E-02         | 4,90E-02 | 3,82E-02 | 2,62E-02 | 1,81E+01         | 1,30E+01 | 6,49E+00 | 2,90E+00 |
| 8000        | 7,20E-02         | 5,86E-02 | 4,64E-02 | 3,22E-02 | 1,81E+01         | 1,30E+01 | 6,50E+00 | 2,90E+00 |
| 10000       | 8,30E-02         | 6,78E-02 | 5,43E-02 | 3,80E-02 | 1,81E+01         | 1,30E+01 | 6,50E+00 | 2,90E+00 |
| 13500       | 1,01E-01         | 8,33E-02 | 6,75E-02 | 4,77E-02 | 1,81E+01         | 1,30E+01 | 6,50E+00 | 2,91E+00 |
| 14600       | 1,07E-01         | 8,79E-02 | 7,15E-02 | 5,06E-02 | 1,82E+01         | 1,30E+01 | 6,51E+00 | 2,91E+00 |
| 18250       | 1,07E-01         | 8,79E-02 | 7,15E-02 | 5,06E-02 | 1,82E+01         | 1,30E+01 | 6,51E+00 | 2,91E+00 |
| Eff. Dosis  | 3,3E-07          | 2,7E-07  | 2,3E-07  | 1,7E-07  | 2,8E-06          | 2,0E-06  | 1,3E-06  | 7,8E-07  |
| Gebärmutter | 2,9E-07          | 2,5E-07  | 2,1E-07  | 1,6E-07  | 1,9E-07          | 1,4E-07  | 8,0E-08  | 4,2E-08  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| U-235       |                  |          |          |          |
|-------------|------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Typ S |          |          |          |
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,77E-01         | 1,22E-01 | 6,47E-02 | 3,06E-02 |
| 2           | 3,47E-01         | 2,40E-01 | 1,26E-01 | 5,87E-02 |
| 3           | 5,13E-01         | 3,56E-01 | 1,85E-01 | 8,60E-02 |
| 3,5         | 5,94E-01         | 4,13E-01 | 2,14E-01 | 9,94E-02 |
| 4           | 6,75E-01         | 4,69E-01 | 2,43E-01 | 1,13E-01 |
| 5           | 8,34E-01         | 5,81E-01 | 3,00E-01 | 1,39E-01 |
| 6           | 9,91E-01         | 6,92E-01 | 3,56E-01 | 1,64E-01 |
| 7           | 1,15E+00         | 8,02E-01 | 4,12E-01 | 1,89E-01 |
| 8           | 1,30E+00         | 9,10E-01 | 4,67E-01 | 2,14E-01 |
| 9           | 1,45E+00         | 1,02E+00 | 5,21E-01 | 2,38E-01 |
| 10          | 1,60E+00         | 1,13E+00 | 5,75E-01 | 2,62E-01 |
| 11          | 1,75E+00         | 1,23E+00 | 6,28E-01 | 2,86E-01 |
| 12          | 1,90E+00         | 1,34E+00 | 6,81E-01 | 3,10E-01 |
| 13          | 2,05E+00         | 1,44E+00 | 7,34E-01 | 3,34E-01 |
| 14          | 2,19E+00         | 1,55E+00 | 7,86E-01 | 3,57E-01 |
| 15          | 2,34E+00         | 1,65E+00 | 8,39E-01 | 3,81E-01 |
| 20          | 3,06E+00         | 2,17E+00 | 1,10E+00 | 4,96E-01 |
| 30          | 4,47E+00         | 3,18E+00 | 1,60E+00 | 7,22E-01 |
| 40          | 5,86E+00         | 4,17E+00 | 2,10E+00 | 9,42E-01 |
| 45          | 6,54E+00         | 4,66E+00 | 2,34E+00 | 1,05E+00 |
| 50          | 7,21E+00         | 5,15E+00 | 2,58E+00 | 1,16E+00 |
| 60          | 8,54E+00         | 6,10E+00 | 3,06E+00 | 1,37E+00 |
| 70          | 9,84E+00         | 7,03E+00 | 3,53E+00 | 1,58E+00 |
| 80          | 1,11E+01         | 7,95E+00 | 3,98E+00 | 1,78E+00 |
| 90          | 1,24E+01         | 8,85E+00 | 4,43E+00 | 1,98E+00 |
| 100         | 1,36E+01         | 9,73E+00 | 4,87E+00 | 2,18E+00 |
| 120         | 1,60E+01         | 1,14E+01 | 5,73E+00 | 2,56E+00 |
| 180         | 2,26E+01         | 1,62E+01 | 8,11E+00 | 3,62E+00 |
| 200         | 2,47E+01         | 1,77E+01 | 8,85E+00 | 3,95E+00 |
| 300         | 3,41E+01         | 2,44E+01 | 1,22E+01 | 5,45E+00 |
| 360         | 3,91E+01         | 2,80E+01 | 1,40E+01 | 6,25E+00 |
| 365         | 3,95E+01         | 2,83E+01 | 1,42E+01 | 6,31E+00 |
| 400         | 4,22E+01         | 3,03E+01 | 1,51E+01 | 6,74E+00 |
| 500         | 4,94E+01         | 3,54E+01 | 1,77E+01 | 7,89E+00 |
| 600         | 5,58E+01         | 4,00E+01 | 2,00E+01 | 8,92E+00 |
| 700         | 6,18E+01         | 4,43E+01 | 2,21E+01 | 9,87E+00 |
| 800         | 6,73E+01         | 4,82E+01 | 2,41E+01 | 1,08E+01 |
| 900         | 7,25E+01         | 5,20E+01 | 2,60E+01 | 1,16E+01 |
| 1000        | 7,75E+01         | 5,56E+01 | 2,78E+01 | 1,24E+01 |
| 2000        | 1,21E+02         | 8,69E+01 | 4,34E+01 | 1,94E+01 |
| 3000        | 1,60E+02         | 1,14E+02 | 5,72E+01 | 2,55E+01 |
| 4000        | 1,94E+02         | 1,39E+02 | 6,96E+01 | 3,10E+01 |
| 5000        | 2,25E+02         | 1,62E+02 | 8,08E+01 | 3,60E+01 |
| 6000        | 2,54E+02         | 1,82E+02 | 9,10E+01 | 4,06E+01 |
| 8000        | 3,03E+02         | 2,17E+02 | 1,09E+02 | 4,84E+01 |
| 10000       | 3,43E+02         | 2,46E+02 | 1,23E+02 | 5,48E+01 |
| 13500       | 3,96E+02         | 2,84E+02 | 1,42E+02 | 6,33E+01 |
| 14600       | 4,09E+02         | 2,93E+02 | 1,47E+02 | 6,54E+01 |
| 18250       | 4,09E+02         | 2,93E+02 | 1,47E+02 | 6,54E+01 |
| Eff. Dosis  | 2,8E-05          | 2,1E-05  | 1,2E-05  | 6,6E-06  |
| Gebärmutter | 5,2E-08          | 3,7E-08  | 2,0E-08  | 9,3E-09  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| U-235       |                    |          |          |          |                    |          |          |          |
|-------------|--------------------|----------|----------|----------|--------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Typ F/M |          |          |          | Inhalation Typ M/S |          |          |          |
|             | 0,3 µm             | 1,0 µm   | 5 µm     | 10 µm    | 0,3 µm             | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,26E-01           | 8,75E-02 | 4,67E-02 | 2,22E-02 | 1,76E-01           | 1,22E-01 | 6,45E-02 | 3,04E-02 |
| 2           | 1,92E-01           | 1,33E-01 | 7,04E-02 | 3,32E-02 | 3,44E-01           | 2,38E-01 | 1,25E-01 | 5,82E-02 |
| 3           | 2,37E-01           | 1,64E-01 | 8,63E-02 | 4,05E-02 | 5,07E-01           | 3,52E-01 | 1,83E-01 | 8,50E-02 |
| 3,5         | 2,55E-01           | 1,77E-01 | 9,30E-02 | 4,36E-02 | 5,86E-01           | 4,07E-01 | 2,12E-01 | 9,81E-02 |
| 4           | 2,73E-01           | 1,90E-01 | 9,92E-02 | 4,64E-02 | 6,66E-01           | 4,63E-01 | 2,40E-01 | 1,11E-01 |
| 5           | 3,05E-01           | 2,12E-01 | 1,11E-01 | 5,17E-02 | 8,21E-01           | 5,72E-01 | 2,96E-01 | 1,36E-01 |
| 6           | 3,36E-01           | 2,34E-01 | 1,22E-01 | 5,67E-02 | 9,75E-01           | 6,81E-01 | 3,51E-01 | 1,61E-01 |
| 7           | 3,66E-01           | 2,55E-01 | 1,33E-01 | 6,15E-02 | 1,13E+00           | 7,88E-01 | 4,05E-01 | 1,86E-01 |
| 8           | 3,94E-01           | 2,75E-01 | 1,43E-01 | 6,62E-02 | 1,28E+00           | 8,94E-01 | 4,58E-01 | 2,10E-01 |
| 9           | 4,23E-01           | 2,96E-01 | 1,53E-01 | 7,08E-02 | 1,42E+00           | 9,99E-01 | 5,11E-01 | 2,34E-01 |
| 10          | 4,50E-01           | 3,15E-01 | 1,63E-01 | 7,52E-02 | 1,57E+00           | 1,10E+00 | 5,64E-01 | 2,57E-01 |
| 11          | 4,78E-01           | 3,35E-01 | 1,73E-01 | 7,96E-02 | 1,72E+00           | 1,21E+00 | 6,16E-01 | 2,81E-01 |
| 12          | 5,04E-01           | 3,54E-01 | 1,82E-01 | 8,39E-02 | 1,86E+00           | 1,31E+00 | 6,68E-01 | 3,04E-01 |
| 13          | 5,31E-01           | 3,73E-01 | 1,92E-01 | 8,82E-02 | 2,00E+00           | 1,41E+00 | 7,19E-01 | 3,27E-01 |
| 14          | 5,57E-01           | 3,91E-01 | 2,01E-01 | 9,23E-02 | 2,15E+00           | 1,51E+00 | 7,70E-01 | 3,50E-01 |
| 15          | 5,82E-01           | 4,10E-01 | 2,10E-01 | 9,64E-02 | 2,29E+00           | 1,62E+00 | 8,21E-01 | 3,73E-01 |
| 20          | 7,05E-01           | 4,98E-01 | 2,54E-01 | 1,16E-01 | 2,99E+00           | 2,12E+00 | 1,07E+00 | 4,85E-01 |
| 30          | 9,29E-01           | 6,58E-01 | 3,34E-01 | 1,52E-01 | 4,36E+00           | 3,10E+00 | 1,56E+00 | 7,04E-01 |
| 40          | 1,13E+00           | 8,00E-01 | 4,05E-01 | 1,84E-01 | 5,70E+00           | 4,06E+00 | 2,04E+00 | 9,17E-01 |
| 45          | 1,22E+00           | 8,65E-01 | 4,38E-01 | 1,98E-01 | 6,35E+00           | 4,53E+00 | 2,28E+00 | 1,02E+00 |
| 50          | 1,30E+00           | 9,26E-01 | 4,68E-01 | 2,12E-01 | 7,00E+00           | 5,00E+00 | 2,51E+00 | 1,13E+00 |
| 60          | 1,46E+00           | 1,04E+00 | 5,24E-01 | 2,36E-01 | 8,28E+00           | 5,91E+00 | 2,97E+00 | 1,33E+00 |
| 70          | 1,60E+00           | 1,14E+00 | 5,74E-01 | 2,59E-01 | 9,52E+00           | 6,80E+00 | 3,41E+00 | 1,53E+00 |
| 80          | 1,72E+00           | 1,23E+00 | 6,18E-01 | 2,78E-01 | 1,07E+01           | 7,67E+00 | 3,85E+00 | 1,72E+00 |
| 90          | 1,83E+00           | 1,30E+00 | 6,57E-01 | 2,96E-01 | 1,19E+01           | 8,52E+00 | 4,27E+00 | 1,91E+00 |
| 100         | 1,93E+00           | 1,37E+00 | 6,92E-01 | 3,11E-01 | 1,31E+01           | 9,35E+00 | 4,69E+00 | 2,09E+00 |
| 120         | 2,09E+00           | 1,49E+00 | 7,50E-01 | 3,37E-01 | 1,53E+01           | 1,10E+01 | 5,49E+00 | 2,45E+00 |
| 180         | 2,40E+00           | 1,71E+00 | 8,61E-01 | 3,87E-01 | 2,15E+01           | 1,54E+01 | 7,69E+00 | 3,43E+00 |
| 200         | 2,46E+00           | 1,76E+00 | 8,84E-01 | 3,97E-01 | 2,33E+01           | 1,67E+01 | 8,36E+00 | 3,73E+00 |
| 300         | 2,63E+00           | 1,88E+00 | 9,44E-01 | 4,24E-01 | 3,17E+01           | 2,27E+01 | 1,13E+01 | 5,06E+00 |
| 360         | 2,67E+00           | 1,91E+00 | 9,59E-01 | 4,30E-01 | 3,60E+01           | 2,58E+01 | 1,29E+01 | 5,75E+00 |
| 365         | 2,67E+00           | 1,91E+00 | 9,59E-01 | 4,31E-01 | 3,63E+01           | 2,60E+01 | 1,30E+01 | 5,80E+00 |
| 400         | 2,69E+00           | 1,92E+00 | 9,64E-01 | 4,33E-01 | 3,86E+01           | 2,76E+01 | 1,38E+01 | 6,16E+00 |
| 500         | 2,70E+00           | 1,93E+00 | 9,71E-01 | 4,35E-01 | 4,44E+01           | 3,19E+01 | 1,59E+01 | 7,10E+00 |
| 600         | 2,71E+00           | 1,94E+00 | 9,73E-01 | 4,37E-01 | 4,95E+01           | 3,55E+01 | 1,77E+01 | 7,91E+00 |
| 700         | 2,71E+00           | 1,94E+00 | 9,74E-01 | 4,37E-01 | 5,40E+01           | 3,87E+01 | 1,93E+01 | 8,63E+00 |
| 800         | 2,71E+00           | 1,94E+00 | 9,74E-01 | 4,37E-01 | 5,80E+01           | 4,16E+01 | 2,08E+01 | 9,27E+00 |
| 900         | 2,71E+00           | 1,94E+00 | 9,75E-01 | 4,37E-01 | 6,16E+01           | 4,42E+01 | 2,21E+01 | 9,85E+00 |
| 1000        | 2,72E+00           | 1,94E+00 | 9,75E-01 | 4,38E-01 | 6,50E+01           | 4,66E+01 | 2,33E+01 | 1,04E+01 |
| 2000        | 2,72E+00           | 1,94E+00 | 9,77E-01 | 4,39E-01 | 8,87E+01           | 6,36E+01 | 3,18E+01 | 1,42E+01 |
| 3000        | 2,73E+00           | 1,95E+00 | 9,80E-01 | 4,40E-01 | 1,03E+02           | 7,36E+01 | 3,68E+01 | 1,64E+01 |
| 4000        | 2,73E+00           | 1,95E+00 | 9,82E-01 | 4,42E-01 | 1,11E+02           | 7,97E+01 | 3,98E+01 | 1,78E+01 |
| 5000        | 2,74E+00           | 1,96E+00 | 9,85E-01 | 4,43E-01 | 1,16E+02           | 8,34E+01 | 4,17E+01 | 1,86E+01 |
| 6000        | 2,74E+00           | 1,96E+00 | 9,87E-01 | 4,44E-01 | 1,19E+02           | 8,56E+01 | 4,28E+01 | 1,91E+01 |
| 8000        | 2,75E+00           | 1,97E+00 | 9,91E-01 | 4,47E-01 | 1,22E+02           | 8,78E+01 | 4,39E+01 | 1,96E+01 |
| 10000       | 2,76E+00           | 1,97E+00 | 9,96E-01 | 4,49E-01 | 1,24E+02           | 8,86E+01 | 4,43E+01 | 1,97E+01 |
| 13500       | 2,78E+00           | 1,99E+00 | 1,00E+00 | 4,53E-01 | 1,24E+02           | 8,89E+01 | 4,45E+01 | 1,98E+01 |
| 14600       | 2,78E+00           | 1,99E+00 | 1,01E+00 | 4,55E-01 | 1,24E+02           | 8,90E+01 | 4,45E+01 | 1,98E+01 |
| 18250       | 2,78E+00           | 1,99E+00 | 1,01E+00 | 4,55E-01 | 1,24E+02           | 8,90E+01 | 4,45E+01 | 1,98E+01 |
| Eff. Dosis  | 8,6E-07            | 5,8E-07  | 3,8E-07  | 2,2E-07  | 1,0E-05            | 7,8E-06  | 5,1E-06  | 3,1E-06  |
| Gebärmutter | 2,6E-07            | 1,9E-07  | 1,2E-07  | 6,6E-08  | 9,6E-08            | 7,0E-08  | 3,6E-08  | 1,7E-08  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| U-235       |                     |          |          |          |
|-------------|---------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Aluminid |          |          |          |
|             | 0,3 µm              | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,78E-01            | 1,23E-01 | 6,52E-02 | 3,08E-02 |
| 2           | 3,50E-01            | 2,42E-01 | 1,27E-01 | 5,92E-02 |
| 3           | 5,17E-01            | 3,59E-01 | 1,87E-01 | 8,68E-02 |
| 3,5         | 6,00E-01            | 4,17E-01 | 2,16E-01 | 1,00E-01 |
| 4           | 6,81E-01            | 4,74E-01 | 2,45E-01 | 1,14E-01 |
| 5           | 8,42E-01            | 5,87E-01 | 3,03E-01 | 1,40E-01 |
| 6           | 1,00E+00            | 6,99E-01 | 3,60E-01 | 1,66E-01 |
| 7           | 1,16E+00            | 8,09E-01 | 4,16E-01 | 1,91E-01 |
| 8           | 1,31E+00            | 9,19E-01 | 4,71E-01 | 2,16E-01 |
| 9           | 1,46E+00            | 1,03E+00 | 5,26E-01 | 2,41E-01 |
| 10          | 1,62E+00            | 1,14E+00 | 5,80E-01 | 2,65E-01 |
| 11          | 1,77E+00            | 1,24E+00 | 6,34E-01 | 2,89E-01 |
| 12          | 1,92E+00            | 1,35E+00 | 6,88E-01 | 3,13E-01 |
| 13          | 2,06E+00            | 1,46E+00 | 7,41E-01 | 3,37E-01 |
| 14          | 2,21E+00            | 1,56E+00 | 7,94E-01 | 3,61E-01 |
| 15          | 2,36E+00            | 1,67E+00 | 8,46E-01 | 3,84E-01 |
| 20          | 3,09E+00            | 2,19E+00 | 1,11E+00 | 5,00E-01 |
| 30          | 4,51E+00            | 3,21E+00 | 1,62E+00 | 7,27E-01 |
| 40          | 5,89E+00            | 4,20E+00 | 2,11E+00 | 9,48E-01 |
| 45          | 6,57E+00            | 4,69E+00 | 2,36E+00 | 1,06E+00 |
| 50          | 7,24E+00            | 5,17E+00 | 2,60E+00 | 1,16E+00 |
| 60          | 8,56E+00            | 6,11E+00 | 3,07E+00 | 1,37E+00 |
| 70          | 9,83E+00            | 7,03E+00 | 3,52E+00 | 1,58E+00 |
| 80          | 1,11E+01            | 7,92E+00 | 3,97E+00 | 1,78E+00 |
| 90          | 1,23E+01            | 8,78E+00 | 4,40E+00 | 1,97E+00 |
| 100         | 1,35E+01            | 9,63E+00 | 4,82E+00 | 2,16E+00 |
| 120         | 1,57E+01            | 1,12E+01 | 5,62E+00 | 2,51E+00 |
| 180         | 2,16E+01            | 1,55E+01 | 7,74E+00 | 3,46E+00 |
| 200         | 2,33E+01            | 1,67E+01 | 8,36E+00 | 3,73E+00 |
| 300         | 3,04E+01            | 2,18E+01 | 1,09E+01 | 4,85E+00 |
| 360         | 3,35E+01            | 2,40E+01 | 1,20E+01 | 5,36E+00 |
| 365         | 3,37E+01            | 2,42E+01 | 1,21E+01 | 5,39E+00 |
| 400         | 3,53E+01            | 2,53E+01 | 1,26E+01 | 5,64E+00 |
| 500         | 3,87E+01            | 2,77E+01 | 1,39E+01 | 6,18E+00 |
| 600         | 4,10E+01            | 2,94E+01 | 1,47E+01 | 6,56E+00 |
| 700         | 4,27E+01            | 3,06E+01 | 1,53E+01 | 6,82E+00 |
| 800         | 4,38E+01            | 3,14E+01 | 1,57E+01 | 7,00E+00 |
| 900         | 4,46E+01            | 3,20E+01 | 1,60E+01 | 7,13E+00 |
| 1000        | 4,52E+01            | 3,24E+01 | 1,62E+01 | 7,22E+00 |
| 2000        | 4,65E+01            | 3,33E+01 | 1,66E+01 | 7,42E+00 |
| 3000        | 4,65E+01            | 3,33E+01 | 1,67E+01 | 7,43E+00 |
| 4000        | 4,65E+01            | 3,33E+01 | 1,67E+01 | 7,43E+00 |
| 5000        | 4,65E+01            | 3,33E+01 | 1,67E+01 | 7,43E+00 |
| 6000        | 4,65E+01            | 3,33E+01 | 1,67E+01 | 7,43E+00 |
| 8000        | 4,65E+01            | 3,33E+01 | 1,67E+01 | 7,43E+00 |
| 10000       | 4,65E+01            | 3,33E+01 | 1,67E+01 | 7,43E+00 |
| 13500       | 4,65E+01            | 3,34E+01 | 1,67E+01 | 7,44E+00 |
| 14600       | 4,65E+01            | 3,34E+01 | 1,67E+01 | 7,44E+00 |
| 18250       | 4,65E+01            | 3,34E+01 | 1,67E+01 | 7,44E+00 |
| Eff. Dosis  | 5,7E-06             | 4,2E-06  | 2,8E-06  | 1,7E-06  |
| Gebärmutter | 1,3E-07             | 9,1E-08  | 4,8E-08  | 2,3E-08  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

Am-241

| Zeit (d)    | Inhalation Typ F |          |          |          | Inhalation Typ M |          |          |          |
|-------------|------------------|----------|----------|----------|------------------|----------|----------|----------|
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,47E-01         | 1,02E-01 | 5,42E-02 | 2,56E-02 | 1,71E-01         | 1,19E-01 | 6,28E-02 | 2,97E-02 |
| 2           | 2,43E-01         | 1,68E-01 | 8,84E-02 | 4,14E-02 | 3,27E-01         | 2,26E-01 | 1,19E-01 | 5,54E-02 |
| 3           | 3,05E-01         | 2,12E-01 | 1,11E-01 | 5,17E-02 | 4,72E-01         | 3,27E-01 | 1,71E-01 | 7,93E-02 |
| 3,5         | 3,28E-01         | 2,28E-01 | 1,19E-01 | 5,55E-02 | 5,41E-01         | 3,76E-01 | 1,95E-01 | 9,07E-02 |
| 4           | 3,46E-01         | 2,41E-01 | 1,26E-01 | 5,85E-02 | 6,09E-01         | 4,24E-01 | 2,20E-01 | 1,02E-01 |
| 5           | 3,74E-01         | 2,60E-01 | 1,35E-01 | 6,30E-02 | 7,41E-01         | 5,16E-01 | 2,67E-01 | 1,23E-01 |
| 6           | 3,92E-01         | 2,73E-01 | 1,42E-01 | 6,59E-02 | 8,68E-01         | 6,05E-01 | 3,12E-01 | 1,44E-01 |
| 7           | 4,04E-01         | 2,81E-01 | 1,46E-01 | 6,79E-02 | 9,91E-01         | 6,93E-01 | 3,56E-01 | 1,64E-01 |
| 8           | 4,12E-01         | 2,87E-01 | 1,49E-01 | 6,92E-02 | 1,11E+00         | 7,79E-01 | 4,00E-01 | 1,83E-01 |
| 9           | 4,18E-01         | 2,91E-01 | 1,51E-01 | 7,01E-02 | 1,23E+00         | 8,63E-01 | 4,42E-01 | 2,02E-01 |
| 10          | 4,22E-01         | 2,94E-01 | 1,53E-01 | 7,08E-02 | 1,35E+00         | 9,46E-01 | 4,84E-01 | 2,21E-01 |
| 11          | 4,24E-01         | 2,96E-01 | 1,54E-01 | 7,12E-02 | 1,46E+00         | 1,03E+00 | 5,25E-01 | 2,40E-01 |
| 12          | 4,26E-01         | 2,97E-01 | 1,54E-01 | 7,15E-02 | 1,58E+00         | 1,11E+00 | 5,66E-01 | 2,58E-01 |
| 13          | 4,28E-01         | 2,98E-01 | 1,55E-01 | 7,18E-02 | 1,69E+00         | 1,19E+00 | 6,06E-01 | 2,76E-01 |
| 14          | 4,29E-01         | 2,99E-01 | 1,55E-01 | 7,20E-02 | 1,80E+00         | 1,27E+00 | 6,46E-01 | 2,94E-01 |
| 15          | 4,30E-01         | 3,00E-01 | 1,56E-01 | 7,21E-02 | 1,91E+00         | 1,35E+00 | 6,85E-01 | 3,11E-01 |
| 20          | 4,33E-01         | 3,02E-01 | 1,57E-01 | 7,26E-02 | 2,45E+00         | 1,73E+00 | 8,77E-01 | 3,97E-01 |
| 30          | 4,38E-01         | 3,05E-01 | 1,58E-01 | 7,35E-02 | 3,46E+00         | 2,46E+00 | 1,24E+00 | 5,59E-01 |
| 40          | 4,42E-01         | 3,08E-01 | 1,60E-01 | 7,42E-02 | 4,40E+00         | 3,13E+00 | 1,58E+00 | 7,09E-01 |
| 45          | 4,44E-01         | 3,10E-01 | 1,61E-01 | 7,46E-02 | 4,85E+00         | 3,45E+00 | 1,74E+00 | 7,80E-01 |
| 50          | 4,47E-01         | 3,11E-01 | 1,62E-01 | 7,50E-02 | 5,28E+00         | 3,76E+00 | 1,89E+00 | 8,49E-01 |
| 60          | 4,51E-01         | 3,14E-01 | 1,63E-01 | 7,57E-02 | 6,10E+00         | 4,35E+00 | 2,19E+00 | 9,80E-01 |
| 70          | 4,55E-01         | 3,17E-01 | 1,65E-01 | 7,64E-02 | 6,87E+00         | 4,90E+00 | 2,46E+00 | 1,10E+00 |
| 80          | 4,59E-01         | 3,20E-01 | 1,66E-01 | 7,72E-02 | 7,58E+00         | 5,42E+00 | 2,72E+00 | 1,22E+00 |
| 90          | 4,64E-01         | 3,23E-01 | 1,68E-01 | 7,79E-02 | 8,25E+00         | 5,90E+00 | 2,96E+00 | 1,32E+00 |
| 100         | 4,68E-01         | 3,26E-01 | 1,69E-01 | 7,86E-02 | 8,87E+00         | 6,34E+00 | 3,18E+00 | 1,42E+00 |
| 120         | 4,76E-01         | 3,32E-01 | 1,72E-01 | 8,00E-02 | 1,00E+01         | 7,15E+00 | 3,58E+00 | 1,60E+00 |
| 180         | 5,00E-01         | 3,48E-01 | 1,81E-01 | 8,40E-02 | 1,26E+01         | 9,02E+00 | 4,52E+00 | 2,02E+00 |
| 200         | 5,08E-01         | 3,54E-01 | 1,84E-01 | 8,54E-02 | 1,33E+01         | 9,49E+00 | 4,75E+00 | 2,12E+00 |
| 300         | 5,47E-01         | 3,81E-01 | 1,98E-01 | 9,20E-02 | 1,55E+01         | 1,11E+01 | 5,57E+00 | 2,49E+00 |
| 360         | 5,70E-01         | 3,97E-01 | 2,07E-01 | 9,60E-02 | 1,64E+01         | 1,17E+01 | 5,86E+00 | 2,62E+00 |
| 365         | 5,72E-01         | 3,99E-01 | 2,07E-01 | 9,64E-02 | 1,64E+01         | 1,18E+01 | 5,88E+00 | 2,63E+00 |
| 400         | 5,86E-01         | 4,08E-01 | 2,12E-01 | 9,87E-02 | 1,68E+01         | 1,20E+01 | 6,01E+00 | 2,68E+00 |
| 500         | 6,25E-01         | 4,36E-01 | 2,27E-01 | 1,05E-01 | 1,74E+01         | 1,25E+01 | 6,25E+00 | 2,79E+00 |
| 600         | 6,64E-01         | 4,63E-01 | 2,41E-01 | 1,12E-01 | 1,78E+01         | 1,28E+01 | 6,38E+00 | 2,85E+00 |
| 700         | 7,04E-01         | 4,91E-01 | 2,55E-01 | 1,19E-01 | 1,80E+01         | 1,29E+01 | 6,47E+00 | 2,89E+00 |
| 800         | 7,44E-01         | 5,18E-01 | 2,70E-01 | 1,26E-01 | 1,82E+01         | 1,30E+01 | 6,52E+00 | 2,91E+00 |
| 900         | 7,83E-01         | 5,46E-01 | 2,84E-01 | 1,32E-01 | 1,83E+01         | 1,31E+01 | 6,55E+00 | 2,93E+00 |
| 1000        | 8,23E-01         | 5,74E-01 | 2,99E-01 | 1,39E-01 | 1,84E+01         | 1,31E+01 | 6,58E+00 | 2,94E+00 |
| 2000        | 1,23E+00         | 8,57E-01 | 4,47E-01 | 2,08E-01 | 1,87E+01         | 1,34E+01 | 6,70E+00 | 2,99E+00 |
| 3000        | 1,64E+00         | 1,15E+00 | 5,98E-01 | 2,79E-01 | 1,90E+01         | 1,36E+01 | 6,81E+00 | 3,04E+00 |
| 4000        | 2,06E+00         | 1,44E+00 | 7,50E-01 | 3,51E-01 | 1,93E+01         | 1,38E+01 | 6,92E+00 | 3,09E+00 |
| 5000        | 2,48E+00         | 1,73E+00 | 9,04E-01 | 4,23E-01 | 1,96E+01         | 1,40E+01 | 7,03E+00 | 3,14E+00 |
| 6000        | 2,90E+00         | 2,03E+00 | 1,06E+00 | 4,95E-01 | 1,99E+01         | 1,43E+01 | 7,14E+00 | 3,19E+00 |
| 8000        | 3,75E+00         | 2,62E+00 | 1,37E+00 | 6,40E-01 | 2,06E+01         | 1,47E+01 | 7,37E+00 | 3,30E+00 |
| 10000       | 4,59E+00         | 3,20E+00 | 1,67E+00 | 7,84E-01 | 2,12E+01         | 1,51E+01 | 7,59E+00 | 3,40E+00 |
| 13500       | 6,05E+00         | 4,22E+00 | 2,21E+00 | 1,04E+00 | 2,22E+01         | 1,59E+01 | 7,98E+00 | 3,57E+00 |
| 14600       | 6,50E+00         | 4,54E+00 | 2,37E+00 | 1,11E+00 | 2,26E+01         | 1,61E+01 | 8,10E+00 | 3,63E+00 |
| 18250       | 6,50E+00         | 4,54E+00 | 2,37E+00 | 1,11E+00 | 2,26E+01         | 1,61E+01 | 8,10E+00 | 3,63E+00 |
| Eff. Dosis  | 2,7E-05          | 1,9E-05  | 1,1E-05  | 6,2E-06  | 2,0E-05          | 1,4E-05  | 8,0E-06  | 4,1E-06  |
| Gebärmutter | 5,7E-06          | 4,0E-06  | 2,2E-06  | 1,1E-06  | 4,1E-06          | 2,9E-06  | 1,5E-06  | 7,0E-07  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| Am-241      |                  |          |          |          |
|-------------|------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Typ S |          |          |          |
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,78E-01         | 1,23E-01 | 6,51E-02 | 3,07E-02 |
| 2           | 3,49E-01         | 2,41E-01 | 1,26E-01 | 5,90E-02 |
| 3           | 5,15E-01         | 3,58E-01 | 1,86E-01 | 8,64E-02 |
| 3,5         | 5,97E-01         | 4,15E-01 | 2,15E-01 | 9,98E-02 |
| 4           | 6,78E-01         | 4,71E-01 | 2,44E-01 | 1,13E-01 |
| 5           | 8,38E-01         | 5,84E-01 | 3,01E-01 | 1,39E-01 |
| 6           | 9,95E-01         | 6,94E-01 | 3,58E-01 | 1,65E-01 |
| 7           | 1,15E+00         | 8,04E-01 | 4,13E-01 | 1,90E-01 |
| 8           | 1,30E+00         | 9,12E-01 | 4,68E-01 | 2,14E-01 |
| 9           | 1,45E+00         | 1,02E+00 | 5,22E-01 | 2,39E-01 |
| 10          | 1,60E+00         | 1,13E+00 | 5,76E-01 | 2,63E-01 |
| 11          | 1,75E+00         | 1,23E+00 | 6,29E-01 | 2,87E-01 |
| 12          | 1,90E+00         | 1,34E+00 | 6,82E-01 | 3,11E-01 |
| 13          | 2,05E+00         | 1,44E+00 | 7,35E-01 | 3,34E-01 |
| 14          | 2,20E+00         | 1,55E+00 | 7,88E-01 | 3,58E-01 |
| 15          | 2,34E+00         | 1,65E+00 | 8,40E-01 | 3,81E-01 |
| 20          | 3,06E+00         | 2,17E+00 | 1,10E+00 | 4,96E-01 |
| 30          | 4,48E+00         | 3,18E+00 | 1,61E+00 | 7,22E-01 |
| 40          | 5,86E+00         | 4,18E+00 | 2,10E+00 | 9,43E-01 |
| 45          | 6,54E+00         | 4,66E+00 | 2,34E+00 | 1,05E+00 |
| 50          | 7,21E+00         | 5,15E+00 | 2,59E+00 | 1,16E+00 |
| 60          | 8,54E+00         | 6,10E+00 | 3,06E+00 | 1,37E+00 |
| 70          | 9,84E+00         | 7,03E+00 | 3,53E+00 | 1,58E+00 |
| 80          | 1,11E+01         | 7,95E+00 | 3,98E+00 | 1,78E+00 |
| 90          | 1,24E+01         | 8,85E+00 | 4,43E+00 | 1,98E+00 |
| 100         | 1,36E+01         | 9,73E+00 | 4,87E+00 | 2,18E+00 |
| 120         | 1,60E+01         | 1,14E+01 | 5,73E+00 | 2,56E+00 |
| 180         | 2,26E+01         | 1,62E+01 | 8,11E+00 | 3,62E+00 |
| 200         | 2,47E+01         | 1,77E+01 | 8,85E+00 | 3,95E+00 |
| 300         | 3,41E+01         | 2,44E+01 | 1,22E+01 | 5,45E+00 |
| 360         | 3,91E+01         | 2,80E+01 | 1,40E+01 | 6,24E+00 |
| 365         | 3,95E+01         | 2,83E+01 | 1,41E+01 | 6,31E+00 |
| 400         | 4,22E+01         | 3,02E+01 | 1,51E+01 | 6,74E+00 |
| 500         | 4,93E+01         | 3,54E+01 | 1,77E+01 | 7,88E+00 |
| 600         | 5,58E+01         | 4,00E+01 | 2,00E+01 | 8,91E+00 |
| 700         | 6,17E+01         | 4,42E+01 | 2,21E+01 | 9,86E+00 |
| 800         | 6,72E+01         | 4,82E+01 | 2,41E+01 | 1,07E+01 |
| 900         | 7,24E+01         | 5,19E+01 | 2,59E+01 | 1,16E+01 |
| 1000        | 7,74E+01         | 5,55E+01 | 2,77E+01 | 1,24E+01 |
| 2000        | 1,21E+02         | 8,66E+01 | 4,33E+01 | 1,93E+01 |
| 3000        | 1,59E+02         | 1,14E+02 | 5,69E+01 | 2,54E+01 |
| 4000        | 1,93E+02         | 1,38E+02 | 6,91E+01 | 3,08E+01 |
| 5000        | 2,24E+02         | 1,60E+02 | 8,02E+01 | 3,57E+01 |
| 6000        | 2,51E+02         | 1,80E+02 | 9,01E+01 | 4,02E+01 |
| 8000        | 2,99E+02         | 2,14E+02 | 1,07E+02 | 4,78E+01 |
| 10000       | 3,37E+02         | 2,42E+02 | 1,21E+02 | 5,39E+01 |
| 13500       | 3,88E+02         | 2,79E+02 | 1,39E+02 | 6,21E+01 |
| 14600       | 4,01E+02         | 2,88E+02 | 1,44E+02 | 6,41E+01 |
| 18250       | 4,01E+02         | 2,88E+02 | 1,44E+02 | 6,41E+01 |
| Eff. Dosis  | 3,9E-05          | 2,9E-05  | 1,7E-05  | 9,0E-06  |
| Gebärmutter | 1,0E-06          | 7,3E-07  | 3,8E-07  | 1,8E-07  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

Am-241

| Inhalation Nitrat |          |          |          |          |
|-------------------|----------|----------|----------|----------|
| Zeit (d)          | 0,3 µm   | 1,0 µm   | 5 µm     | 10 µm    |
| 1                 | 1,59E-01 | 1,10E-01 | 5,85E-02 | 2,77E-02 |
| 2                 | 2,85E-01 | 1,97E-01 | 1,04E-01 | 4,84E-02 |
| 3                 | 3,89E-01 | 2,70E-01 | 1,41E-01 | 6,55E-02 |
| 3,5               | 4,35E-01 | 3,02E-01 | 1,57E-01 | 7,31E-02 |
| 4                 | 4,78E-01 | 3,32E-01 | 1,73E-01 | 8,01E-02 |
| 5                 | 5,57E-01 | 3,88E-01 | 2,01E-01 | 9,31E-02 |
| 6                 | 6,30E-01 | 4,39E-01 | 2,27E-01 | 1,05E-01 |
| 7                 | 6,98E-01 | 4,87E-01 | 2,51E-01 | 1,16E-01 |
| 8                 | 7,62E-01 | 5,33E-01 | 2,74E-01 | 1,26E-01 |
| 9                 | 8,24E-01 | 5,77E-01 | 2,97E-01 | 1,36E-01 |
| 10                | 8,84E-01 | 6,20E-01 | 3,18E-01 | 1,46E-01 |
| 11                | 9,43E-01 | 6,62E-01 | 3,39E-01 | 1,55E-01 |
| 12                | 1,00E+00 | 7,03E-01 | 3,60E-01 | 1,65E-01 |
| 13                | 1,06E+00 | 7,44E-01 | 3,80E-01 | 1,74E-01 |
| 14                | 1,11E+00 | 7,84E-01 | 4,01E-01 | 1,83E-01 |
| 15                | 1,17E+00 | 8,23E-01 | 4,20E-01 | 1,92E-01 |
| 20                | 1,44E+00 | 1,02E+00 | 5,17E-01 | 2,35E-01 |
| 30                | 1,95E+00 | 1,38E+00 | 6,99E-01 | 3,16E-01 |
| 40                | 2,42E+00 | 1,72E+00 | 8,69E-01 | 3,92E-01 |
| 45                | 2,65E+00 | 1,88E+00 | 9,49E-01 | 4,28E-01 |
| 50                | 2,86E+00 | 2,04E+00 | 1,03E+00 | 4,62E-01 |
| 60                | 3,28E+00 | 2,33E+00 | 1,18E+00 | 5,28E-01 |
| 70                | 3,66E+00 | 2,61E+00 | 1,31E+00 | 5,90E-01 |
| 80                | 4,02E+00 | 2,87E+00 | 1,44E+00 | 6,47E-01 |
| 90                | 4,36E+00 | 3,11E+00 | 1,56E+00 | 7,01E-01 |
| 100               | 4,67E+00 | 3,34E+00 | 1,68E+00 | 7,51E-01 |
| 120               | 5,24E+00 | 3,74E+00 | 1,88E+00 | 8,42E-01 |
| 180               | 6,55E+00 | 4,68E+00 | 2,35E+00 | 1,05E+00 |
| 200               | 6,89E+00 | 4,92E+00 | 2,47E+00 | 1,11E+00 |
| 300               | 8,05E+00 | 5,76E+00 | 2,89E+00 | 1,29E+00 |
| 360               | 8,47E+00 | 6,06E+00 | 3,04E+00 | 1,36E+00 |
| 365               | 8,50E+00 | 6,08E+00 | 3,05E+00 | 1,36E+00 |
| 400               | 8,68E+00 | 6,21E+00 | 3,11E+00 | 1,39E+00 |
| 500               | 9,03E+00 | 6,46E+00 | 3,24E+00 | 1,45E+00 |
| 600               | 9,24E+00 | 6,61E+00 | 3,31E+00 | 1,48E+00 |
| 700               | 9,38E+00 | 6,71E+00 | 3,36E+00 | 1,50E+00 |
| 800               | 9,47E+00 | 6,77E+00 | 3,39E+00 | 1,52E+00 |
| 900               | 9,54E+00 | 6,82E+00 | 3,42E+00 | 1,53E+00 |
| 1000              | 9,59E+00 | 6,86E+00 | 3,44E+00 | 1,54E+00 |
| 2000              | 9,97E+00 | 7,13E+00 | 3,58E+00 | 1,60E+00 |
| 3000              | 1,03E+01 | 7,38E+00 | 3,71E+00 | 1,66E+00 |
| 4000              | 1,07E+01 | 7,63E+00 | 3,84E+00 | 1,72E+00 |
| 5000              | 1,11E+01 | 7,89E+00 | 3,97E+00 | 1,78E+00 |
| 6000              | 1,14E+01 | 8,15E+00 | 4,10E+00 | 1,85E+00 |
| 8000              | 1,22E+01 | 8,66E+00 | 4,37E+00 | 1,97E+00 |
| 10000             | 1,29E+01 | 9,17E+00 | 4,63E+00 | 2,09E+00 |
| 13500             | 1,41E+01 | 1,01E+01 | 5,09E+00 | 2,30E+00 |
| 14600             | 1,45E+01 | 1,03E+01 | 5,24E+00 | 2,37E+00 |
| 18250             | 1,45E+01 | 1,03E+01 | 5,24E+00 | 2,37E+00 |
| Eff. Dosis        | 2,4E-05  | 1,7E-05  | 9,8E-06  | 5,2E-06  |
| Gebärmutter       | 4,8E-06  | 3,4E-06  | 1,8E-06  | 8,6E-07  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

Am-243

| Zeit (d)    | Inhalation Typ F |          |          |          | Inhalation Typ M |          |          |          |
|-------------|------------------|----------|----------|----------|------------------|----------|----------|----------|
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,47E-01         | 1,02E-01 | 5,42E-02 | 2,56E-02 | 1,71E-01         | 1,19E-01 | 6,28E-02 | 2,97E-02 |
| 2           | 2,43E-01         | 1,68E-01 | 8,84E-02 | 4,14E-02 | 3,27E-01         | 2,26E-01 | 1,19E-01 | 5,54E-02 |
| 3           | 3,05E-01         | 2,12E-01 | 1,11E-01 | 5,17E-02 | 4,72E-01         | 3,27E-01 | 1,71E-01 | 7,93E-02 |
| 3,5         | 3,28E-01         | 2,28E-01 | 1,19E-01 | 5,55E-02 | 5,41E-01         | 3,76E-01 | 1,95E-01 | 9,07E-02 |
| 4           | 3,46E-01         | 2,41E-01 | 1,26E-01 | 5,85E-02 | 6,09E-01         | 4,24E-01 | 2,20E-01 | 1,02E-01 |
| 5           | 3,74E-01         | 2,60E-01 | 1,35E-01 | 6,30E-02 | 7,41E-01         | 5,16E-01 | 2,67E-01 | 1,23E-01 |
| 6           | 3,92E-01         | 2,73E-01 | 1,42E-01 | 6,59E-02 | 8,68E-01         | 6,05E-01 | 3,12E-01 | 1,44E-01 |
| 7           | 4,04E-01         | 2,81E-01 | 1,46E-01 | 6,79E-02 | 9,91E-01         | 6,93E-01 | 3,56E-01 | 1,64E-01 |
| 8           | 4,12E-01         | 2,87E-01 | 1,49E-01 | 6,92E-02 | 1,11E+00         | 7,79E-01 | 4,00E-01 | 1,83E-01 |
| 9           | 4,18E-01         | 2,91E-01 | 1,51E-01 | 7,01E-02 | 1,23E+00         | 8,63E-01 | 4,42E-01 | 2,02E-01 |
| 10          | 4,22E-01         | 2,94E-01 | 1,53E-01 | 7,08E-02 | 1,35E+00         | 9,46E-01 | 4,84E-01 | 2,21E-01 |
| 11          | 4,24E-01         | 2,96E-01 | 1,54E-01 | 7,12E-02 | 1,46E+00         | 1,03E+00 | 5,25E-01 | 2,40E-01 |
| 12          | 4,26E-01         | 2,97E-01 | 1,54E-01 | 7,15E-02 | 1,58E+00         | 1,11E+00 | 5,66E-01 | 2,58E-01 |
| 13          | 4,28E-01         | 2,98E-01 | 1,55E-01 | 7,18E-02 | 1,69E+00         | 1,19E+00 | 6,06E-01 | 2,76E-01 |
| 14          | 4,29E-01         | 2,99E-01 | 1,55E-01 | 7,20E-02 | 1,80E+00         | 1,27E+00 | 6,46E-01 | 2,94E-01 |
| 15          | 4,30E-01         | 3,00E-01 | 1,56E-01 | 7,21E-02 | 1,91E+00         | 1,35E+00 | 6,85E-01 | 3,11E-01 |
| 20          | 4,33E-01         | 3,02E-01 | 1,57E-01 | 7,26E-02 | 2,45E+00         | 1,73E+00 | 8,77E-01 | 3,97E-01 |
| 30          | 4,38E-01         | 3,05E-01 | 1,58E-01 | 7,35E-02 | 3,46E+00         | 2,46E+00 | 1,24E+00 | 5,59E-01 |
| 40          | 4,42E-01         | 3,08E-01 | 1,60E-01 | 7,42E-02 | 4,40E+00         | 3,13E+00 | 1,58E+00 | 7,09E-01 |
| 45          | 4,44E-01         | 3,10E-01 | 1,61E-01 | 7,46E-02 | 4,85E+00         | 3,45E+00 | 1,74E+00 | 7,80E-01 |
| 50          | 4,47E-01         | 3,11E-01 | 1,62E-01 | 7,50E-02 | 5,28E+00         | 3,76E+00 | 1,89E+00 | 8,49E-01 |
| 60          | 4,51E-01         | 3,14E-01 | 1,63E-01 | 7,57E-02 | 6,10E+00         | 4,35E+00 | 2,19E+00 | 9,80E-01 |
| 70          | 4,55E-01         | 3,17E-01 | 1,65E-01 | 7,64E-02 | 6,87E+00         | 4,90E+00 | 2,46E+00 | 1,10E+00 |
| 80          | 4,59E-01         | 3,20E-01 | 1,66E-01 | 7,72E-02 | 7,58E+00         | 5,42E+00 | 2,72E+00 | 1,22E+00 |
| 90          | 4,64E-01         | 3,23E-01 | 1,68E-01 | 7,79E-02 | 8,25E+00         | 5,90E+00 | 2,96E+00 | 1,32E+00 |
| 100         | 4,68E-01         | 3,26E-01 | 1,69E-01 | 7,86E-02 | 8,88E+00         | 6,34E+00 | 3,18E+00 | 1,42E+00 |
| 120         | 4,76E-01         | 3,32E-01 | 1,72E-01 | 8,00E-02 | 1,00E+01         | 7,15E+00 | 3,59E+00 | 1,60E+00 |
| 180         | 5,00E-01         | 3,48E-01 | 1,81E-01 | 8,40E-02 | 1,26E+01         | 9,02E+00 | 4,52E+00 | 2,02E+00 |
| 200         | 5,08E-01         | 3,54E-01 | 1,84E-01 | 8,54E-02 | 1,33E+01         | 9,50E+00 | 4,75E+00 | 2,12E+00 |
| 300         | 5,47E-01         | 3,81E-01 | 1,98E-01 | 9,21E-02 | 1,56E+01         | 1,11E+01 | 5,57E+00 | 2,49E+00 |
| 360         | 5,70E-01         | 3,98E-01 | 2,07E-01 | 9,60E-02 | 1,64E+01         | 1,17E+01 | 5,86E+00 | 2,62E+00 |
| 365         | 5,72E-01         | 3,99E-01 | 2,07E-01 | 9,64E-02 | 1,64E+01         | 1,18E+01 | 5,88E+00 | 2,63E+00 |
| 400         | 5,86E-01         | 4,08E-01 | 2,12E-01 | 9,87E-02 | 1,68E+01         | 1,20E+01 | 6,01E+00 | 2,68E+00 |
| 500         | 6,25E-01         | 4,36E-01 | 2,27E-01 | 1,05E-01 | 1,74E+01         | 1,25E+01 | 6,25E+00 | 2,79E+00 |
| 600         | 6,65E-01         | 4,63E-01 | 2,41E-01 | 1,12E-01 | 1,78E+01         | 1,28E+01 | 6,39E+00 | 2,85E+00 |
| 700         | 7,04E-01         | 4,91E-01 | 2,55E-01 | 1,19E-01 | 1,81E+01         | 1,29E+01 | 6,47E+00 | 2,89E+00 |
| 800         | 7,44E-01         | 5,19E-01 | 2,70E-01 | 1,26E-01 | 1,82E+01         | 1,30E+01 | 6,52E+00 | 2,91E+00 |
| 900         | 7,84E-01         | 5,47E-01 | 2,84E-01 | 1,32E-01 | 1,83E+01         | 1,31E+01 | 6,55E+00 | 2,93E+00 |
| 1000        | 8,24E-01         | 5,75E-01 | 2,99E-01 | 1,39E-01 | 1,84E+01         | 1,32E+01 | 6,58E+00 | 2,94E+00 |
| 2000        | 1,23E+00         | 8,60E-01 | 4,48E-01 | 2,09E-01 | 1,87E+01         | 1,34E+01 | 6,71E+00 | 3,00E+00 |
| 3000        | 1,65E+00         | 1,15E+00 | 6,00E-01 | 2,80E-01 | 1,90E+01         | 1,36E+01 | 6,82E+00 | 3,05E+00 |
| 4000        | 2,07E+00         | 1,45E+00 | 7,55E-01 | 3,53E-01 | 1,93E+01         | 1,38E+01 | 6,93E+00 | 3,10E+00 |
| 5000        | 2,50E+00         | 1,75E+00 | 9,12E-01 | 4,26E-01 | 1,97E+01         | 1,41E+01 | 7,04E+00 | 3,15E+00 |
| 6000        | 2,93E+00         | 2,05E+00 | 1,07E+00 | 5,00E-01 | 2,00E+01         | 1,43E+01 | 7,16E+00 | 3,20E+00 |
| 8000        | 3,80E+00         | 2,65E+00 | 1,39E+00 | 6,49E-01 | 2,06E+01         | 1,47E+01 | 7,39E+00 | 3,30E+00 |
| 10000       | 4,68E+00         | 3,26E+00 | 1,71E+00 | 7,99E-01 | 2,12E+01         | 1,52E+01 | 7,62E+00 | 3,41E+00 |
| 13500       | 6,21E+00         | 4,33E+00 | 2,27E+00 | 1,06E+00 | 2,24E+01         | 1,60E+01 | 8,02E+00 | 3,59E+00 |
| 14600       | 6,69E+00         | 4,67E+00 | 2,44E+00 | 1,14E+00 | 2,27E+01         | 1,62E+01 | 8,15E+00 | 3,65E+00 |
| 18250       | 6,69E+00         | 4,67E+00 | 2,44E+00 | 1,14E+00 | 2,27E+01         | 1,62E+01 | 8,15E+00 | 3,65E+00 |
| Eff. Dosis  | 2,7E-05          | 1,9E-05  | 1,1E-05  | 6,2E-06  | 2,0E-05          | 1,4E-05  | 7,9E-06  | 4,0E-06  |
| Gebärmutter | 5,7E-06          | 4,0E-06  | 2,2E-06  | 1,1E-06  | 4,2E-06          | 3,0E-06  | 1,5E-06  | 7,1E-07  |



Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| Am-243      |                  |          |          |          |
|-------------|------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Typ S |          |          |          |
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,78E-01         | 1,23E-01 | 6,51E-02 | 3,07E-02 |
| 2           | 3,49E-01         | 2,41E-01 | 1,26E-01 | 5,90E-02 |
| 3           | 5,15E-01         | 3,58E-01 | 1,86E-01 | 8,64E-02 |
| 3,5         | 5,97E-01         | 4,15E-01 | 2,15E-01 | 9,98E-02 |
| 4           | 6,78E-01         | 4,71E-01 | 2,44E-01 | 1,13E-01 |
| 5           | 8,38E-01         | 5,84E-01 | 3,01E-01 | 1,39E-01 |
| 6           | 9,95E-01         | 6,94E-01 | 3,58E-01 | 1,65E-01 |
| 7           | 1,15E+00         | 8,04E-01 | 4,13E-01 | 1,90E-01 |
| 8           | 1,30E+00         | 9,13E-01 | 4,68E-01 | 2,14E-01 |
| 9           | 1,45E+00         | 1,02E+00 | 5,22E-01 | 2,39E-01 |
| 10          | 1,60E+00         | 1,13E+00 | 5,76E-01 | 2,63E-01 |
| 11          | 1,75E+00         | 1,23E+00 | 6,29E-01 | 2,87E-01 |
| 12          | 1,90E+00         | 1,34E+00 | 6,82E-01 | 3,11E-01 |
| 13          | 2,05E+00         | 1,44E+00 | 7,35E-01 | 3,34E-01 |
| 14          | 2,20E+00         | 1,55E+00 | 7,88E-01 | 3,58E-01 |
| 15          | 2,34E+00         | 1,65E+00 | 8,40E-01 | 3,81E-01 |
| 20          | 3,06E+00         | 2,17E+00 | 1,10E+00 | 4,96E-01 |
| 30          | 4,48E+00         | 3,18E+00 | 1,61E+00 | 7,22E-01 |
| 40          | 5,86E+00         | 4,18E+00 | 2,10E+00 | 9,43E-01 |
| 45          | 6,54E+00         | 4,67E+00 | 2,34E+00 | 1,05E+00 |
| 50          | 7,22E+00         | 5,15E+00 | 2,59E+00 | 1,16E+00 |
| 60          | 8,54E+00         | 6,10E+00 | 3,06E+00 | 1,37E+00 |
| 70          | 9,85E+00         | 7,04E+00 | 3,53E+00 | 1,58E+00 |
| 80          | 1,11E+01         | 7,95E+00 | 3,99E+00 | 1,78E+00 |
| 90          | 1,24E+01         | 8,85E+00 | 4,43E+00 | 1,98E+00 |
| 100         | 1,36E+01         | 9,73E+00 | 4,87E+00 | 2,18E+00 |
| 120         | 1,60E+01         | 1,14E+01 | 5,73E+00 | 2,56E+00 |
| 180         | 2,26E+01         | 1,62E+01 | 8,11E+00 | 3,62E+00 |
| 200         | 2,47E+01         | 1,77E+01 | 8,85E+00 | 3,95E+00 |
| 300         | 3,41E+01         | 2,44E+01 | 1,22E+01 | 5,45E+00 |
| 360         | 3,91E+01         | 2,80E+01 | 1,40E+01 | 6,25E+00 |
| 365         | 3,95E+01         | 2,83E+01 | 1,42E+01 | 6,31E+00 |
| 400         | 4,22E+01         | 3,03E+01 | 1,51E+01 | 6,75E+00 |
| 500         | 4,94E+01         | 3,54E+01 | 1,77E+01 | 7,89E+00 |
| 600         | 5,58E+01         | 4,00E+01 | 2,00E+01 | 8,92E+00 |
| 700         | 6,18E+01         | 4,43E+01 | 2,21E+01 | 9,87E+00 |
| 800         | 6,73E+01         | 4,82E+01 | 2,41E+01 | 1,08E+01 |
| 900         | 7,25E+01         | 5,20E+01 | 2,60E+01 | 1,16E+01 |
| 1000        | 7,75E+01         | 5,56E+01 | 2,78E+01 | 1,24E+01 |
| 2000        | 1,21E+02         | 8,69E+01 | 4,34E+01 | 1,94E+01 |
| 3000        | 1,60E+02         | 1,14E+02 | 5,72E+01 | 2,55E+01 |
| 4000        | 1,94E+02         | 1,39E+02 | 6,96E+01 | 3,10E+01 |
| 5000        | 2,26E+02         | 1,62E+02 | 8,08E+01 | 3,60E+01 |
| 6000        | 2,54E+02         | 1,82E+02 | 9,10E+01 | 4,06E+01 |
| 8000        | 3,03E+02         | 2,17E+02 | 1,09E+02 | 4,84E+01 |
| 10000       | 3,43E+02         | 2,46E+02 | 1,23E+02 | 5,48E+01 |
| 13500       | 3,96E+02         | 2,84E+02 | 1,42E+02 | 6,33E+01 |
| 14600       | 4,09E+02         | 2,94E+02 | 1,47E+02 | 6,55E+01 |
| 18250       | 4,09E+02         | 2,94E+02 | 1,47E+02 | 6,55E+01 |
| Eff. Dosis  | 3,8E-05          | 2,8E-05  | 1,6E-05  | 8,8E-06  |
| Gebärmutter | 1,0E-06          | 7,4E-07  | 3,9E-07  | 1,8E-07  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

Am-243

| Inhalation Nitrat |          |          |          |          |
|-------------------|----------|----------|----------|----------|
| Zeit (d)          | 0,3 µm   | 1,0 µm   | 5 µm     | 10 µm    |
| 1                 | 1,59E-01 | 1,10E-01 | 5,85E-02 | 2,77E-02 |
| 2                 | 2,85E-01 | 1,97E-01 | 1,04E-01 | 4,84E-02 |
| 3                 | 3,89E-01 | 2,70E-01 | 1,41E-01 | 6,55E-02 |
| 3,5               | 4,35E-01 | 3,02E-01 | 1,57E-01 | 7,31E-02 |
| 4                 | 4,78E-01 | 3,32E-01 | 1,73E-01 | 8,01E-02 |
| 5                 | 5,57E-01 | 3,88E-01 | 2,01E-01 | 9,31E-02 |
| 6                 | 6,30E-01 | 4,39E-01 | 2,27E-01 | 1,05E-01 |
| 7                 | 6,98E-01 | 4,87E-01 | 2,51E-01 | 1,16E-01 |
| 8                 | 7,62E-01 | 5,33E-01 | 2,74E-01 | 1,26E-01 |
| 9                 | 8,24E-01 | 5,77E-01 | 2,97E-01 | 1,36E-01 |
| 10                | 8,84E-01 | 6,20E-01 | 3,18E-01 | 1,46E-01 |
| 11                | 9,43E-01 | 6,62E-01 | 3,39E-01 | 1,55E-01 |
| 12                | 1,00E+00 | 7,03E-01 | 3,60E-01 | 1,65E-01 |
| 13                | 1,06E+00 | 7,44E-01 | 3,80E-01 | 1,74E-01 |
| 14                | 1,11E+00 | 7,84E-01 | 4,01E-01 | 1,83E-01 |
| 15                | 1,17E+00 | 8,23E-01 | 4,20E-01 | 1,92E-01 |
| 20                | 1,44E+00 | 1,02E+00 | 5,17E-01 | 2,35E-01 |
| 30                | 1,95E+00 | 1,38E+00 | 6,99E-01 | 3,16E-01 |
| 40                | 2,42E+00 | 1,72E+00 | 8,69E-01 | 3,92E-01 |
| 45                | 2,65E+00 | 1,88E+00 | 9,49E-01 | 4,28E-01 |
| 50                | 2,86E+00 | 2,04E+00 | 1,03E+00 | 4,62E-01 |
| 60                | 3,28E+00 | 2,33E+00 | 1,18E+00 | 5,28E-01 |
| 70                | 3,66E+00 | 2,61E+00 | 1,31E+00 | 5,90E-01 |
| 80                | 4,02E+00 | 2,87E+00 | 1,44E+00 | 6,47E-01 |
| 90                | 4,36E+00 | 3,11E+00 | 1,56E+00 | 7,01E-01 |
| 100               | 4,67E+00 | 3,34E+00 | 1,68E+00 | 7,51E-01 |
| 120               | 5,24E+00 | 3,74E+00 | 1,88E+00 | 8,42E-01 |
| 180               | 6,55E+00 | 4,69E+00 | 2,35E+00 | 1,05E+00 |
| 200               | 6,89E+00 | 4,93E+00 | 2,47E+00 | 1,11E+00 |
| 300               | 8,05E+00 | 5,76E+00 | 2,89E+00 | 1,29E+00 |
| 360               | 8,47E+00 | 6,06E+00 | 3,04E+00 | 1,36E+00 |
| 365               | 8,50E+00 | 6,08E+00 | 3,05E+00 | 1,36E+00 |
| 400               | 8,68E+00 | 6,21E+00 | 3,11E+00 | 1,39E+00 |
| 500               | 9,04E+00 | 6,47E+00 | 3,24E+00 | 1,45E+00 |
| 600               | 9,25E+00 | 6,62E+00 | 3,32E+00 | 1,48E+00 |
| 700               | 9,38E+00 | 6,71E+00 | 3,36E+00 | 1,50E+00 |
| 800               | 9,48E+00 | 6,78E+00 | 3,40E+00 | 1,52E+00 |
| 900               | 9,54E+00 | 6,83E+00 | 3,42E+00 | 1,53E+00 |
| 1000              | 9,60E+00 | 6,86E+00 | 3,44E+00 | 1,54E+00 |
| 2000              | 9,98E+00 | 7,13E+00 | 3,58E+00 | 1,60E+00 |
| 3000              | 1,03E+01 | 7,39E+00 | 3,71E+00 | 1,66E+00 |
| 4000              | 1,07E+01 | 7,65E+00 | 3,84E+00 | 1,73E+00 |
| 5000              | 1,11E+01 | 7,91E+00 | 3,98E+00 | 1,79E+00 |
| 6000              | 1,15E+01 | 8,17E+00 | 4,11E+00 | 1,85E+00 |
| 8000              | 1,22E+01 | 8,70E+00 | 4,39E+00 | 1,98E+00 |
| 10000             | 1,30E+01 | 9,23E+00 | 4,66E+00 | 2,11E+00 |
| 13500             | 1,43E+01 | 1,02E+01 | 5,15E+00 | 2,33E+00 |
| 14600             | 1,47E+01 | 1,05E+01 | 5,30E+00 | 2,40E+00 |
| 18250             | 1,47E+01 | 1,05E+01 | 5,30E+00 | 2,40E+00 |
| Eff. Dosis        | 2,4E-05  | 1,7E-05  | 9,7E-06  | 5,2E-06  |
| Gebärmutter       | 4,8E-06  | 3,4E-06  | 1,8E-06  | 8,7E-07  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| Cf-252      |                  |          |          |          |                  |          |          |          |
|-------------|------------------|----------|----------|----------|------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Typ F |          |          |          | Inhalation Typ M |          |          |          |
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,47E-01         | 1,02E-01 | 5,42E-02 | 2,57E-02 | 1,71E-01         | 1,19E-01 | 6,28E-02 | 2,97E-02 |
| 2           | 2,43E-01         | 1,68E-01 | 8,85E-02 | 4,15E-02 | 3,27E-01         | 2,26E-01 | 1,19E-01 | 5,54E-02 |
| 3           | 3,06E-01         | 2,12E-01 | 1,11E-01 | 5,18E-02 | 4,72E-01         | 3,27E-01 | 1,70E-01 | 7,92E-02 |
| 3,5         | 3,28E-01         | 2,28E-01 | 1,19E-01 | 5,56E-02 | 5,41E-01         | 3,76E-01 | 1,95E-01 | 9,06E-02 |
| 4           | 3,47E-01         | 2,41E-01 | 1,26E-01 | 5,86E-02 | 6,08E-01         | 4,23E-01 | 2,19E-01 | 1,02E-01 |
| 5           | 3,74E-01         | 2,60E-01 | 1,35E-01 | 6,30E-02 | 7,39E-01         | 5,15E-01 | 2,66E-01 | 1,23E-01 |
| 6           | 3,92E-01         | 2,73E-01 | 1,42E-01 | 6,60E-02 | 8,66E-01         | 6,04E-01 | 3,12E-01 | 1,44E-01 |
| 7           | 4,04E-01         | 2,81E-01 | 1,46E-01 | 6,80E-02 | 9,89E-01         | 6,91E-01 | 3,56E-01 | 1,64E-01 |
| 8           | 4,13E-01         | 2,87E-01 | 1,49E-01 | 6,93E-02 | 1,11E+00         | 7,77E-01 | 3,99E-01 | 1,83E-01 |
| 9           | 4,18E-01         | 2,91E-01 | 1,51E-01 | 7,02E-02 | 1,23E+00         | 8,60E-01 | 4,41E-01 | 2,02E-01 |
| 10          | 4,22E-01         | 2,94E-01 | 1,53E-01 | 7,08E-02 | 1,34E+00         | 9,43E-01 | 4,82E-01 | 2,21E-01 |
| 11          | 4,25E-01         | 2,96E-01 | 1,54E-01 | 7,13E-02 | 1,46E+00         | 1,02E+00 | 5,23E-01 | 2,39E-01 |
| 12          | 4,27E-01         | 2,97E-01 | 1,54E-01 | 7,16E-02 | 1,57E+00         | 1,11E+00 | 5,64E-01 | 2,57E-01 |
| 13          | 4,28E-01         | 2,98E-01 | 1,55E-01 | 7,19E-02 | 1,68E+00         | 1,18E+00 | 6,03E-01 | 2,75E-01 |
| 14          | 4,29E-01         | 2,99E-01 | 1,55E-01 | 7,20E-02 | 1,79E+00         | 1,26E+00 | 6,43E-01 | 2,92E-01 |
| 15          | 4,30E-01         | 3,00E-01 | 1,56E-01 | 7,22E-02 | 1,90E+00         | 1,34E+00 | 6,82E-01 | 3,10E-01 |
| 20          | 4,33E-01         | 3,02E-01 | 1,57E-01 | 7,27E-02 | 2,43E+00         | 1,72E+00 | 8,71E-01 | 3,94E-01 |
| 30          | 4,38E-01         | 3,05E-01 | 1,59E-01 | 7,36E-02 | 3,42E+00         | 2,43E+00 | 1,23E+00 | 5,53E-01 |
| 40          | 4,43E-01         | 3,09E-01 | 1,60E-01 | 7,44E-02 | 4,34E+00         | 3,09E+00 | 1,56E+00 | 7,00E-01 |
| 45          | 4,45E-01         | 3,10E-01 | 1,61E-01 | 7,48E-02 | 4,78E+00         | 3,40E+00 | 1,71E+00 | 7,69E-01 |
| 50          | 4,47E-01         | 3,12E-01 | 1,62E-01 | 7,51E-02 | 5,20E+00         | 3,70E+00 | 1,86E+00 | 8,36E-01 |
| 60          | 4,52E-01         | 3,15E-01 | 1,64E-01 | 7,59E-02 | 5,98E+00         | 4,27E+00 | 2,15E+00 | 9,62E-01 |
| 70          | 4,56E-01         | 3,18E-01 | 1,65E-01 | 7,67E-02 | 6,72E+00         | 4,79E+00 | 2,41E+00 | 1,08E+00 |
| 80          | 4,61E-01         | 3,21E-01 | 1,67E-01 | 7,74E-02 | 7,39E+00         | 5,28E+00 | 2,65E+00 | 1,19E+00 |
| 90          | 4,65E-01         | 3,24E-01 | 1,68E-01 | 7,81E-02 | 8,02E+00         | 5,73E+00 | 2,88E+00 | 1,29E+00 |
| 100         | 4,69E-01         | 3,27E-01 | 1,70E-01 | 7,88E-02 | 8,61E+00         | 6,15E+00 | 3,08E+00 | 1,38E+00 |
| 120         | 4,77E-01         | 3,32E-01 | 1,73E-01 | 8,02E-02 | 9,65E+00         | 6,90E+00 | 3,46E+00 | 1,55E+00 |
| 180         | 5,00E-01         | 3,48E-01 | 1,81E-01 | 8,42E-02 | 1,20E+01         | 8,58E+00 | 4,30E+00 | 1,92E+00 |
| 200         | 5,07E-01         | 3,54E-01 | 1,84E-01 | 8,54E-02 | 1,26E+01         | 8,99E+00 | 4,50E+00 | 2,01E+00 |
| 300         | 5,41E-01         | 3,77E-01 | 1,96E-01 | 9,12E-02 | 1,45E+01         | 1,04E+01 | 5,19E+00 | 2,32E+00 |
| 360         | 5,60E-01         | 3,91E-01 | 2,03E-01 | 9,44E-02 | 1,51E+01         | 1,08E+01 | 5,42E+00 | 2,42E+00 |
| 365         | 5,62E-01         | 3,92E-01 | 2,04E-01 | 9,47E-02 | 1,52E+01         | 1,09E+01 | 5,44E+00 | 2,43E+00 |
| 400         | 5,72E-01         | 3,99E-01 | 2,08E-01 | 9,65E-02 | 1,54E+01         | 1,11E+01 | 5,53E+00 | 2,47E+00 |
| 500         | 6,01E-01         | 4,19E-01 | 2,18E-01 | 1,01E-01 | 1,59E+01         | 1,14E+01 | 5,71E+00 | 2,55E+00 |
| 600         | 6,27E-01         | 4,37E-01 | 2,27E-01 | 1,06E-01 | 1,62E+01         | 1,16E+01 | 5,80E+00 | 2,59E+00 |
| 700         | 6,51E-01         | 4,54E-01 | 2,36E-01 | 1,10E-01 | 1,63E+01         | 1,17E+01 | 5,85E+00 | 2,61E+00 |
| 800         | 6,74E-01         | 4,70E-01 | 2,45E-01 | 1,14E-01 | 1,64E+01         | 1,18E+01 | 5,88E+00 | 2,63E+00 |
| 900         | 6,95E-01         | 4,85E-01 | 2,52E-01 | 1,17E-01 | 1,65E+01         | 1,18E+01 | 5,90E+00 | 2,64E+00 |
| 1000        | 7,15E-01         | 4,99E-01 | 2,60E-01 | 1,21E-01 | 1,65E+01         | 1,18E+01 | 5,91E+00 | 2,64E+00 |
| 2000        | 8,51E-01         | 5,94E-01 | 3,09E-01 | 1,44E-01 | 1,66E+01         | 1,19E+01 | 5,96E+00 | 2,66E+00 |
| 3000        | 9,19E-01         | 6,41E-01 | 3,34E-01 | 1,55E-01 | 1,67E+01         | 1,19E+01 | 5,97E+00 | 2,67E+00 |
| 4000        | 9,52E-01         | 6,64E-01 | 3,46E-01 | 1,61E-01 | 1,67E+01         | 1,20E+01 | 5,98E+00 | 2,67E+00 |
| 5000        | 9,68E-01         | 6,75E-01 | 3,52E-01 | 1,64E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,67E+00 |
| 6000        | 9,76E-01         | 6,80E-01 | 3,54E-01 | 1,65E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,68E+00 |
| 8000        | 9,81E-01         | 6,84E-01 | 3,57E-01 | 1,66E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,68E+00 |
| 10000       | 9,83E-01         | 6,85E-01 | 3,57E-01 | 1,66E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,68E+00 |
| 13500       | 9,83E-01         | 6,86E-01 | 3,57E-01 | 1,66E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,68E+00 |
| 14600       | 9,83E-01         | 6,86E-01 | 3,57E-01 | 1,66E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,68E+00 |
| 18250       | 9,83E-01         | 6,86E-01 | 3,57E-01 | 1,66E-01 | 1,67E+01         | 1,20E+01 | 5,99E+00 | 2,68E+00 |
| Eff. Dosis  | 9,0E-06          | 6,2E-06  | 3,6E-06  | 1,9E-06  | 9,9E-06          | 7,0E-06  | 4,0E-06  | 2,1E-06  |
| Gebärmutter | 7,6E-07          | 5,4E-07  | 2,9E-07  | 1,5E-07  | 5,2E-07          | 3,7E-07  | 2,0E-07  | 9,5E-08  |

Anhang 7.2.2: Chronische Zufuhr, Retention in der Lunge in Bq/(Bq d<sup>-1</sup>)

| Cf-252      |                  |          |          |          |
|-------------|------------------|----------|----------|----------|
| Zeit (d)    | Inhalation Typ S |          |          |          |
|             | 0,3 µm           | 1,0 µm   | 5 µm     | 10 µm    |
| 1           | 1,77E-01         | 1,23E-01 | 6,50E-02 | 3,07E-02 |
| 2           | 3,48E-01         | 2,41E-01 | 1,26E-01 | 5,90E-02 |
| 3           | 5,15E-01         | 3,57E-01 | 1,86E-01 | 8,63E-02 |
| 3,5         | 5,96E-01         | 4,14E-01 | 2,15E-01 | 9,97E-02 |
| 4           | 6,77E-01         | 4,71E-01 | 2,44E-01 | 1,13E-01 |
| 5           | 8,36E-01         | 5,83E-01 | 3,01E-01 | 1,39E-01 |
| 6           | 9,93E-01         | 6,93E-01 | 3,57E-01 | 1,64E-01 |
| 7           | 1,15E+00         | 8,02E-01 | 4,12E-01 | 1,89E-01 |
| 8           | 1,30E+00         | 9,10E-01 | 4,67E-01 | 2,14E-01 |
| 9           | 1,45E+00         | 1,02E+00 | 5,21E-01 | 2,38E-01 |
| 10          | 1,60E+00         | 1,12E+00 | 5,74E-01 | 2,62E-01 |
| 11          | 1,75E+00         | 1,23E+00 | 6,27E-01 | 2,86E-01 |
| 12          | 1,89E+00         | 1,33E+00 | 6,80E-01 | 3,09E-01 |
| 13          | 2,04E+00         | 1,44E+00 | 7,32E-01 | 3,33E-01 |
| 14          | 2,19E+00         | 1,54E+00 | 7,84E-01 | 3,56E-01 |
| 15          | 2,33E+00         | 1,65E+00 | 8,36E-01 | 3,79E-01 |
| 20          | 3,04E+00         | 2,16E+00 | 1,09E+00 | 4,93E-01 |
| 30          | 4,43E+00         | 3,15E+00 | 1,59E+00 | 7,15E-01 |
| 40          | 5,78E+00         | 4,12E+00 | 2,07E+00 | 9,30E-01 |
| 45          | 6,44E+00         | 4,59E+00 | 2,31E+00 | 1,04E+00 |
| 50          | 7,09E+00         | 5,06E+00 | 2,54E+00 | 1,14E+00 |
| 60          | 8,37E+00         | 5,98E+00 | 3,00E+00 | 1,34E+00 |
| 70          | 9,61E+00         | 6,87E+00 | 3,44E+00 | 1,54E+00 |
| 80          | 1,08E+01         | 7,73E+00 | 3,88E+00 | 1,73E+00 |
| 90          | 1,20E+01         | 8,58E+00 | 4,30E+00 | 1,92E+00 |
| 100         | 1,31E+01         | 9,40E+00 | 4,71E+00 | 2,11E+00 |
| 120         | 1,54E+01         | 1,10E+01 | 5,50E+00 | 2,46E+00 |
| 180         | 2,13E+01         | 1,53E+01 | 7,64E+00 | 3,41E+00 |
| 200         | 2,31E+01         | 1,66E+01 | 8,29E+00 | 3,70E+00 |
| 300         | 3,10E+01         | 2,22E+01 | 1,11E+01 | 4,95E+00 |
| 360         | 3,49E+01         | 2,50E+01 | 1,25E+01 | 5,58E+00 |
| 365         | 3,52E+01         | 2,53E+01 | 1,26E+01 | 5,63E+00 |
| 400         | 3,73E+01         | 2,67E+01 | 1,34E+01 | 5,96E+00 |
| 500         | 4,25E+01         | 3,05E+01 | 1,52E+01 | 6,79E+00 |
| 600         | 4,68E+01         | 3,36E+01 | 1,68E+01 | 7,48E+00 |
| 700         | 5,06E+01         | 3,62E+01 | 1,81E+01 | 8,08E+00 |
| 800         | 5,38E+01         | 3,86E+01 | 1,93E+01 | 8,59E+00 |
| 900         | 5,66E+01         | 4,06E+01 | 2,03E+01 | 9,05E+00 |
| 1000        | 5,91E+01         | 4,24E+01 | 2,12E+01 | 9,45E+00 |
| 2000        | 7,45E+01         | 5,34E+01 | 2,67E+01 | 1,19E+01 |
| 3000        | 8,10E+01         | 5,81E+01 | 2,90E+01 | 1,30E+01 |
| 4000        | 8,39E+01         | 6,02E+01 | 3,01E+01 | 1,34E+01 |
| 5000        | 8,52E+01         | 6,11E+01 | 3,05E+01 | 1,36E+01 |
| 6000        | 8,57E+01         | 6,15E+01 | 3,07E+01 | 1,37E+01 |
| 8000        | 8,61E+01         | 6,17E+01 | 3,09E+01 | 1,38E+01 |
| 10000       | 8,62E+01         | 6,18E+01 | 3,09E+01 | 1,38E+01 |
| 13500       | 8,62E+01         | 6,18E+01 | 3,09E+01 | 1,38E+01 |
| 14600       | 8,62E+01         | 6,18E+01 | 3,09E+01 | 1,38E+01 |
| 18250       | 8,62E+01         | 6,18E+01 | 3,09E+01 | 1,38E+01 |
| Eff. Dosis  | 1,8E-05          | 1,3E-05  | 8,1E-06  | 4,6E-06  |
| Gebärmutter | 5,0E-08          | 3,8E-08  | 2,5E-08  | 1,5E-08  |