

# S4 Inputs needed

- Elements contained and target isotopes:

- 11 elements w/ fractions of number of atoms
- 24 corresponding target isotopes w/

id =  $Z \times 10000 + A \times 10$  and

fractions of number of isotopes

11 0

1	4.00E-004
6	3.33E-005
8	3.00E-002
11	9.78E-004
12	4.86E-004
13	2.24E-003
14	9.93E-003
19	4.50E-004
20	2.38E-003
25	6.73E-005
26	4.54E-004

24 4000

60130	3.29E-007
80170	1.07E-005
80180	5.47E-005
110230	9.78E-004
120240	3.88E-004
120250	4.72E-005
120260	5.00E-005
130270	2.24E-003
140280	9.19E-003
140290	4.51E-004
140300	2.88E-004
190390	4.21E-004
190400	5.15E-008
190410	2.89E-005
200420	1.47E-005
200430	3.00E-006
200440	4.52E-005
200460	8.30E-008
200480	3.72E-006
250550	6.73E-005
260540	2.75E-005
260560	4.16E-004
260570	9.44E-006
260580	1.23E-006

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1 Bulk Shotcrete problem: N. Abgrall et al., Nucl. Instr. and Meth. A 828 (2016) (doi:10.1016/j.nima.2016.04.070)
2 1 2 1
3 11 0
4 1 0.008369383
5 6 0.000702273
6 8 0.632664473
7 11 0.020638254
8 12 0.010237913
9 13 0.04720579
10 14 0.209482183
11 19 0.009492483
12 20 0.0501958
13 25 0.001420213
14 26 0.009591234
15 100 10.0 0.0
16 7
17 832120 1.560541E-04
18 842120 8.185316E-15
19 842160 6.221754E-09
20 862200 2.382798E-06
21 882240 1.340747E-02
22 902280 2.583255E+00
23 902320 1.903857E+10
24 11 4000
25 60130 3.29e-7
26 80170 1.07e-5
27 80180 5.47e-5
28 110230 9.78e-4
29 120240 3.88e-4
30 120250 4.72e-5
31 120260 5.00e-5
32 130270 2.24e-3
33 140280 9.19e-3
34 140290 4.51e-4
35 140300 2.88e-4
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