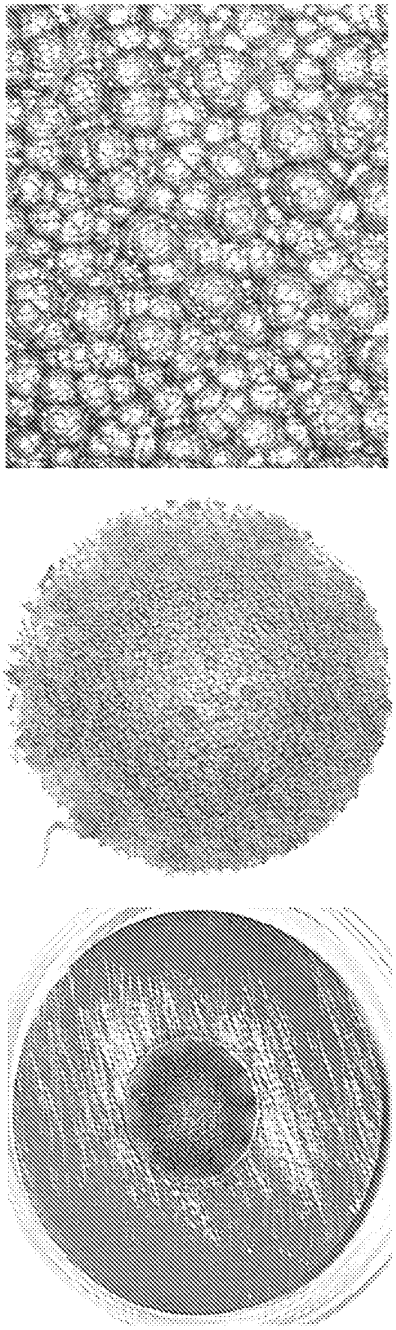


FIG. 1

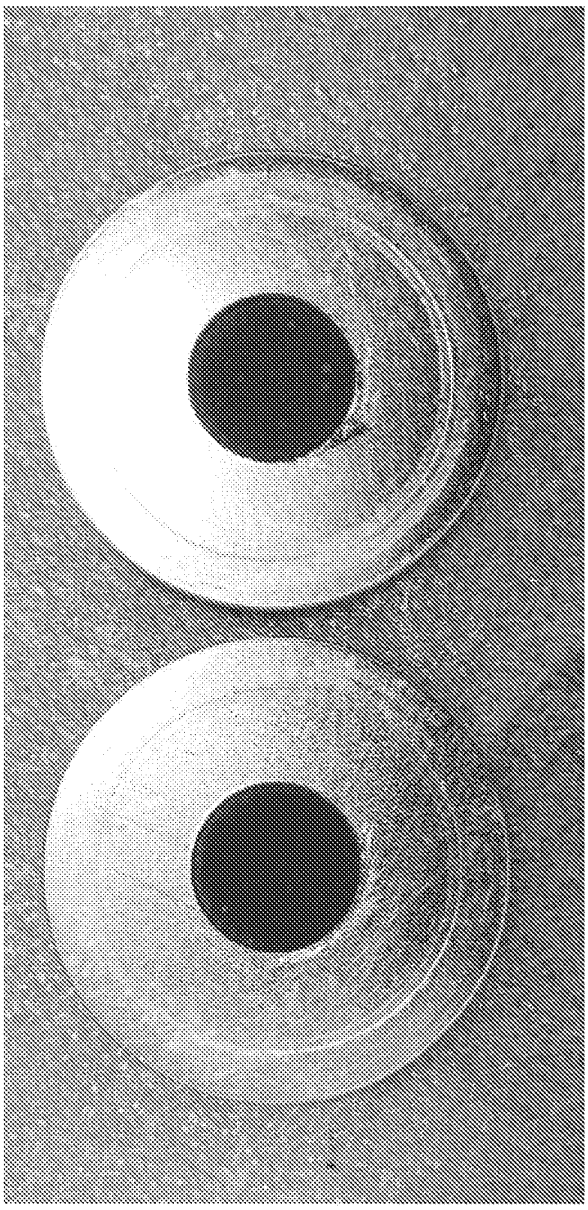


FIG. 2

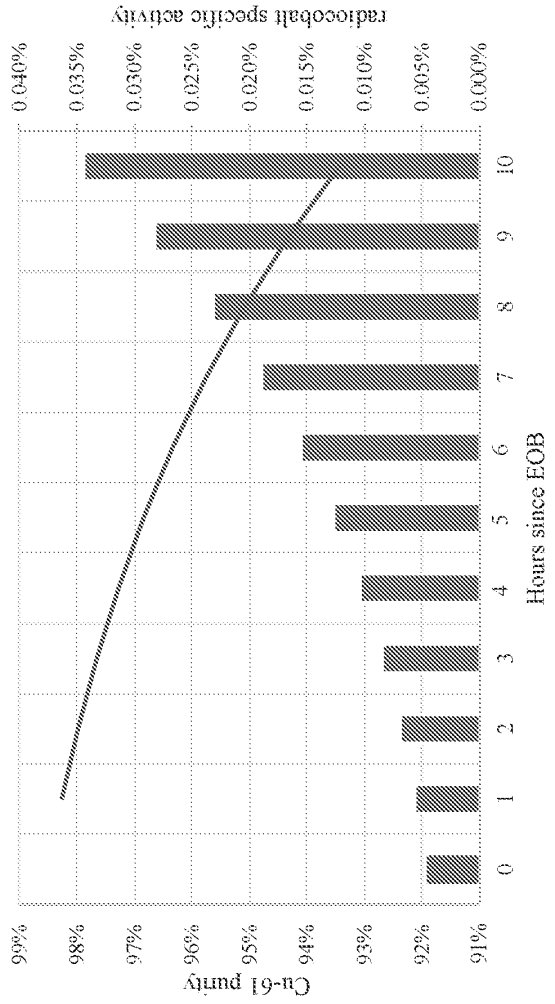

radiocobalt specific activity
0.040%
0.035%
0.030%
0.025%
0.020%
0.015%
0.010%
0.005%
0.000%
Cu-61 purity
99%
98%
97%
96%
95%
94%
93%
92%
91%
0
1
2
3
4
5
6
7
8
9
10
Hours since EOB

FIG. 3

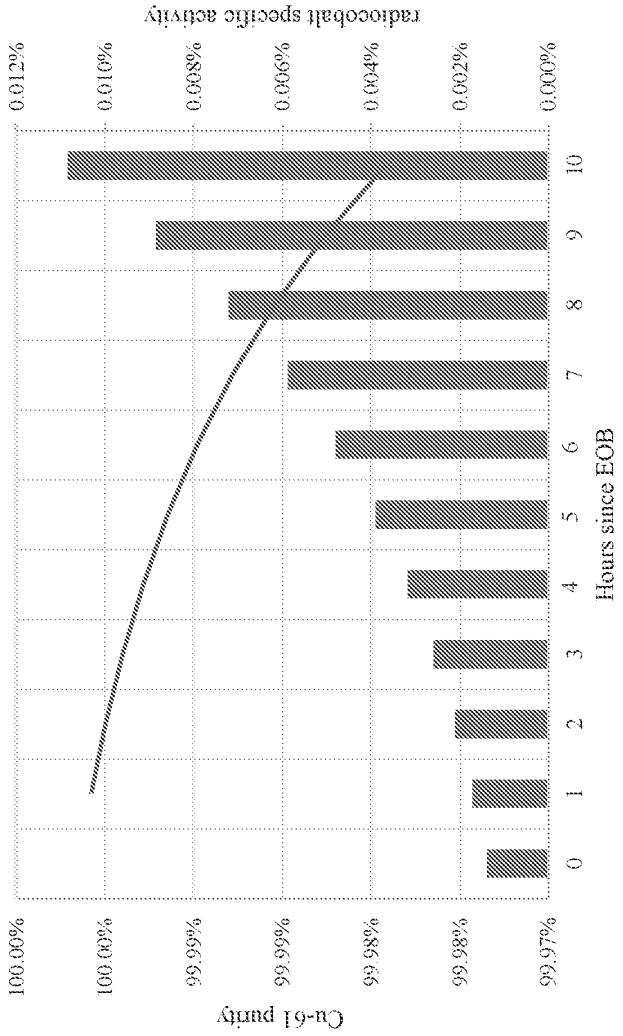

radiocobalt specific activity
0.012%
0.010%
0.008%
0.006%
0.004%
0.002%
0.000%
Cu-61 purity
100.00%
100.00%
99.99%
99.99%
99.98%
99.98%
99.97%
0
1
2
3
4
5
6
7
8
9
10
Hours since EOB

FIG. 4

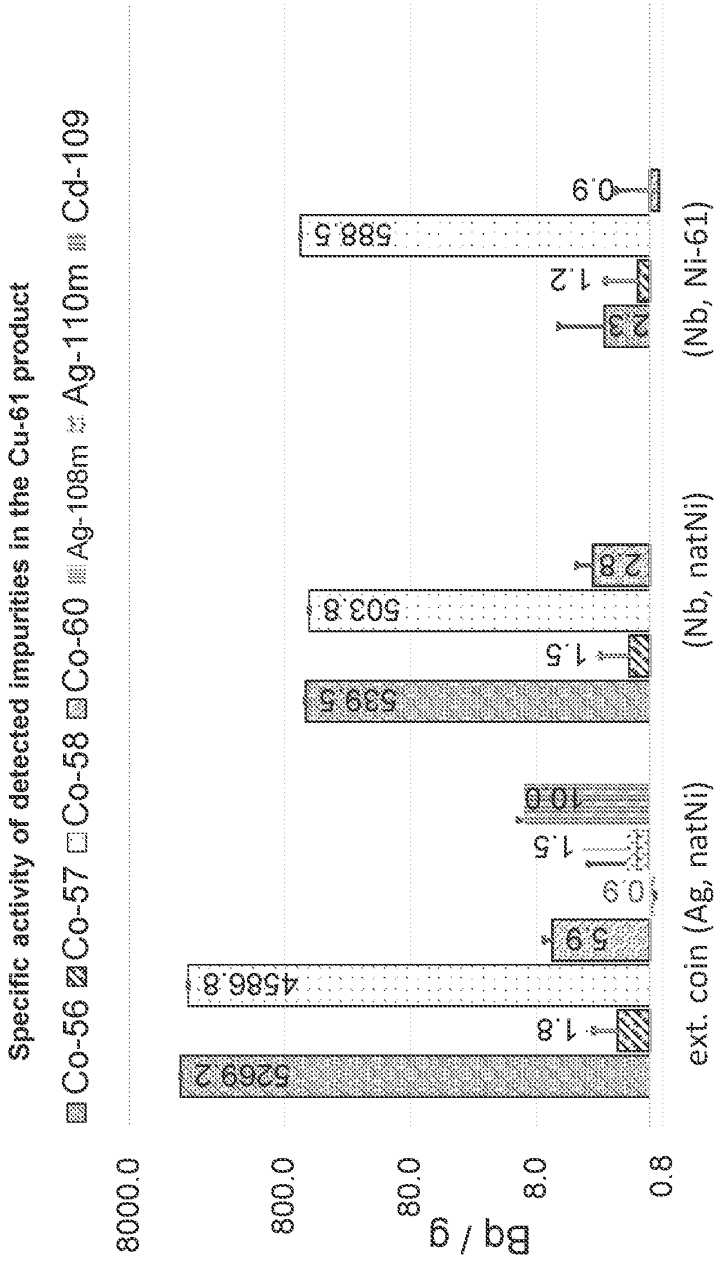

Specific activity of detected impurities in the Cu-61 product
Co-56 Co-57 Co-58 Co-60 Ag-108m Ag-110m Cd-109
Bq / g
8000.0
800.0
80.0
8.0
0.8
5269.2
1.8
4586.8
5.9
0.9
1.5
10.0
539.5
1.5
503.8
2.8
588.5
0.9
1.2
1.3
ext. coin (Ag, natNi)
(Nb, natNi)
(Nb, Ni-61)

FIG. 5

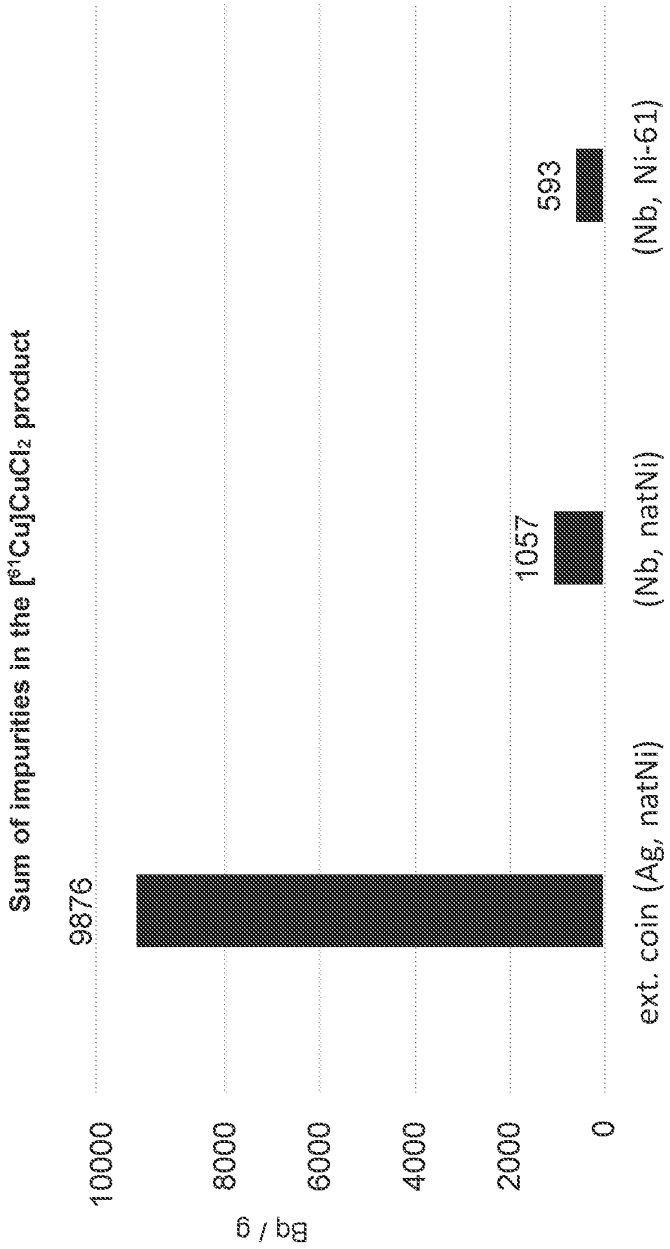

Sum of impurities in the [^{61}Cu]CuCl$_2$ product
9876
1057
593
ext. coin (Ag, natNi)
(Nb, natNi)
(Nb, Ni-61)
10000
8000
6000
4000
2000
0
Bq / g

FIG. 6

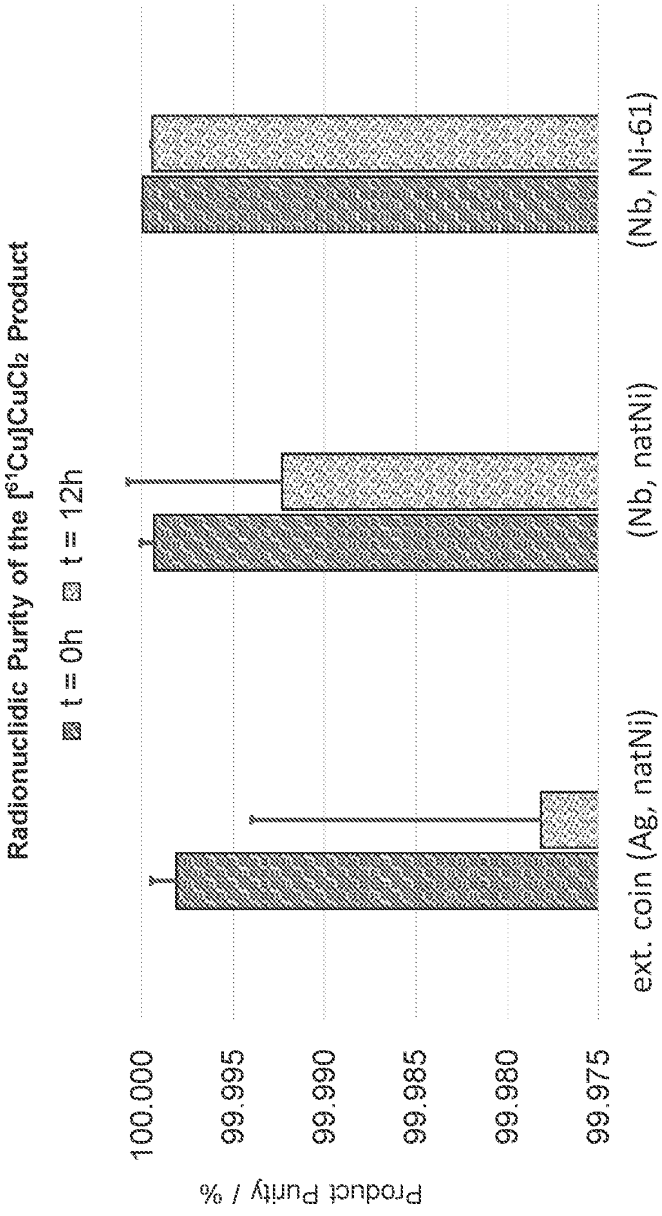

Radionuclidic Purity of the [61Cu]CuCl2 Product
t = 0h
t = 12h
Product Purity / %
100.000
99.995
99.990
99.985
99.980
99.975
ext. coin (Ag, natNi)
(Nb, natNi)
(Nb, Ni-61)

FIG. 7

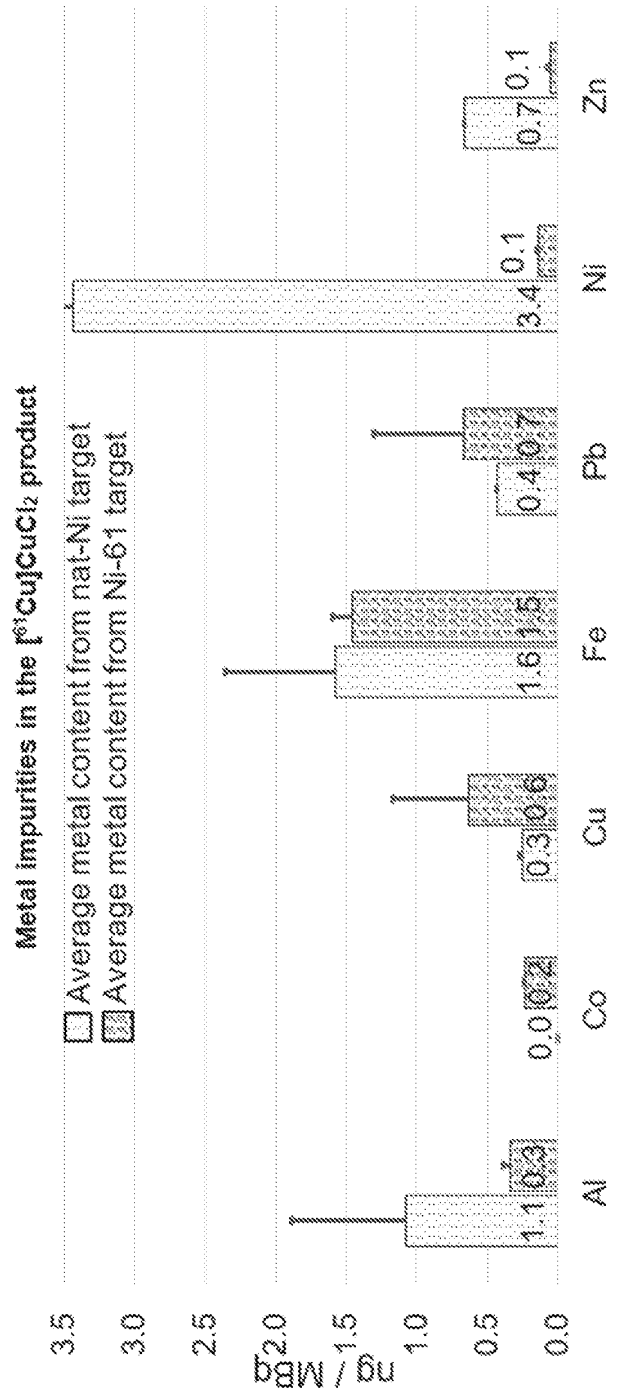

Metal impurities in the [18F]CuJCuCl2 product
Average metal content from nat-Ni target
Average metal content from Ni-61 target
ng / MBq
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Al
Co
Cu
Fe
Pb
Ni
Zn
1.1
0.3
0.0
0.2
0.3
0.6
1.6
1.5
0.4
0.7
3.4
0.1
0.7
0.1

FIG. 8