We performed the proton irradiation of the high purity natural Hf sample on 24 May. The technical details are as follows:

Sample - 15 mm diameter, 1mm thick natural Hf foil (Zr content <0.3%)
Proton beam - 27 MeV, 32 uA current, ~7 hrs. Total protons = 5.04E+18.

Talys estimate of Ta179 production = 870 ng
Ta179 produced = ~505 ng

The foil got turned into white power during irradiation. We assume it underwent oxidation due to some possible leaks in the target holder. The picture of the foil is shown on the left.

Gamma spectra analysis:
From analysing the gamma- and the X-ray spectrum of the sample, we have identified several isotopes that have been produced in the irradiation. Below is the list of those isotopes along with their activities. The spectra are shown in the attached pdf file.

		73 d since irr		7 months since irr
Isotope	**halflife (d)**	**Activity on 05 Aug (kBq)**	**error (kBq)**	**Activity on 24Dec (kBq)**
179Ta	664.3	1.81E+04	>200	1.55E+04
177Ta	56.56	undetermined		
175Hf	70	1.12E+04	14.16	2.80E+03
179Hf	25.05	1.45E+01	0.91	3.01E-01
181Hf	42.39	1.68E+01	0.97	1.71E+00
172Lu	6.7	4.61E+00	0.50	2.36E-06
173Lu	485.45	3.55E+01	6.06	2.90E+01
174Lu	142	undetermined		
177Lu	6.65	undetermined		
88Zr	83.4	5.04E+00	1.04	1.57E+00
88Y	106.63	6.90E-01	0.18	2.78E-01
95Nb	34.99	5.11E+00	0.40	3.19E-01
57Co	271.74	1.23E+01	1.78	8.57E+00
58Co	70.86	7.32E-01	0.25	1.86E-01
65Zn	243.93	5.71E+00	0.69	3.84E+00
54Mn	312.2	2.63E+00	0.30	1.93E+00
Total		2.94E+04		1.83E+04