

**News**

# LIME under test: stability

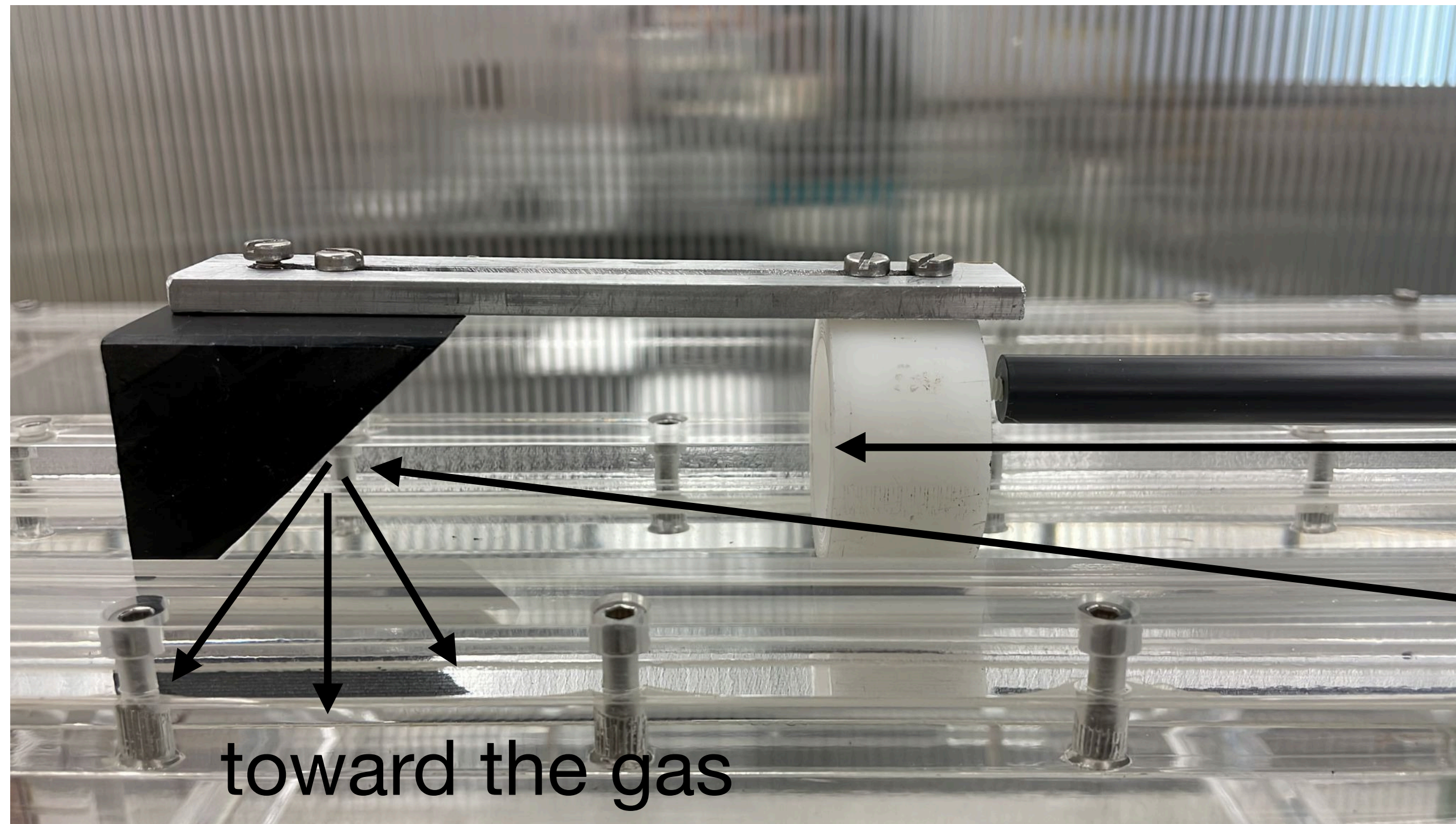
In the last two weeks, LIME was kept continuously under test;

An automatic procedure takes pedestal and  $^{55}\text{Fe}$  runs, both with long and short exposure;

Giovanni and Rita are looking at the data and start the analysis of pedestals;

# LIME under test: low energy x rays

Following the indications from Cristina, we are trying to produce some low energy (i.e.  $< 6$  keV) X ray to test LIME;



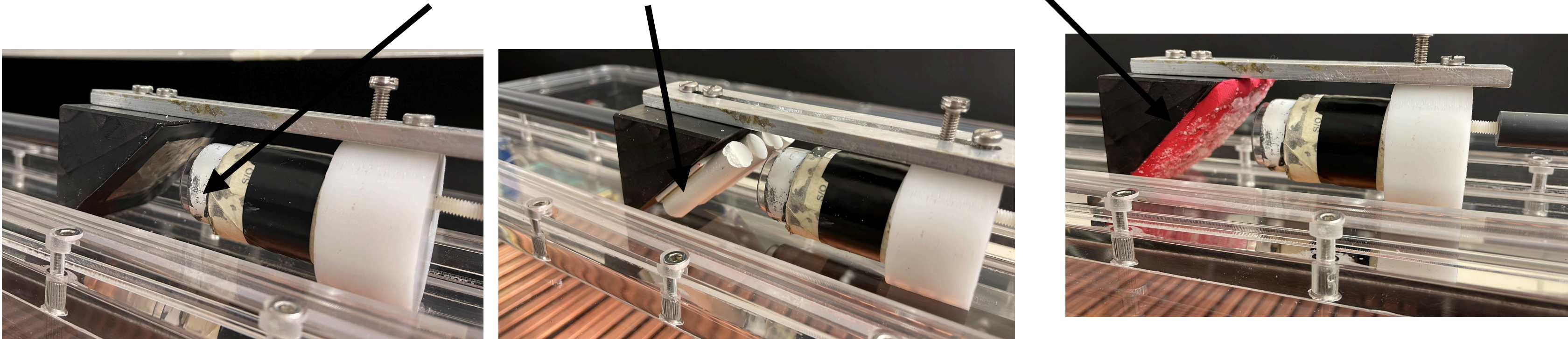
Roberto prepared a trolley  
able house the 740 MBq  
 $^{55}\text{Fe}$  source to irradiate a  
target

toward the gas



# LIME under test: low energy x rays

We tried Titanium, gypsum (Ca), salt (Cl)

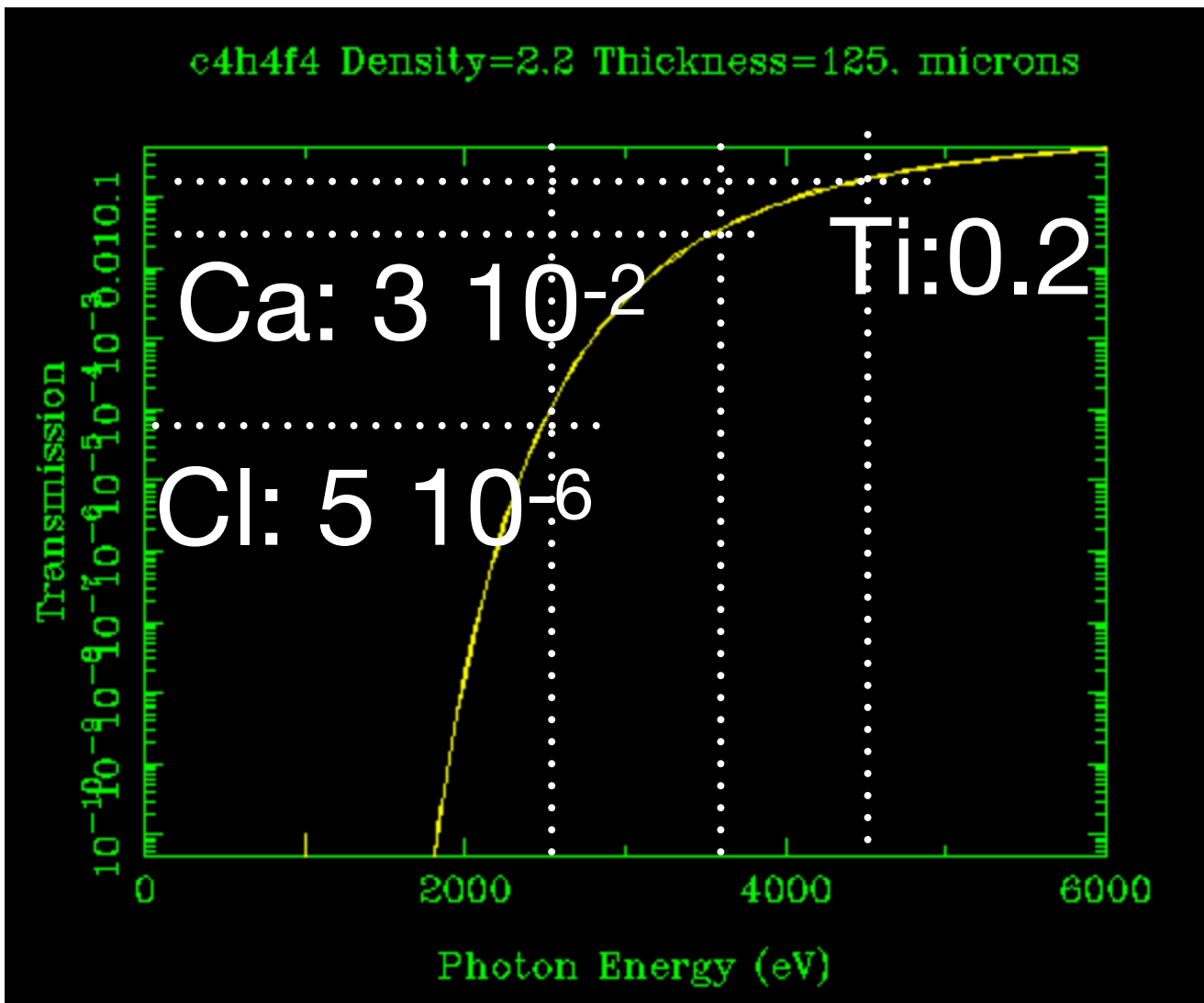
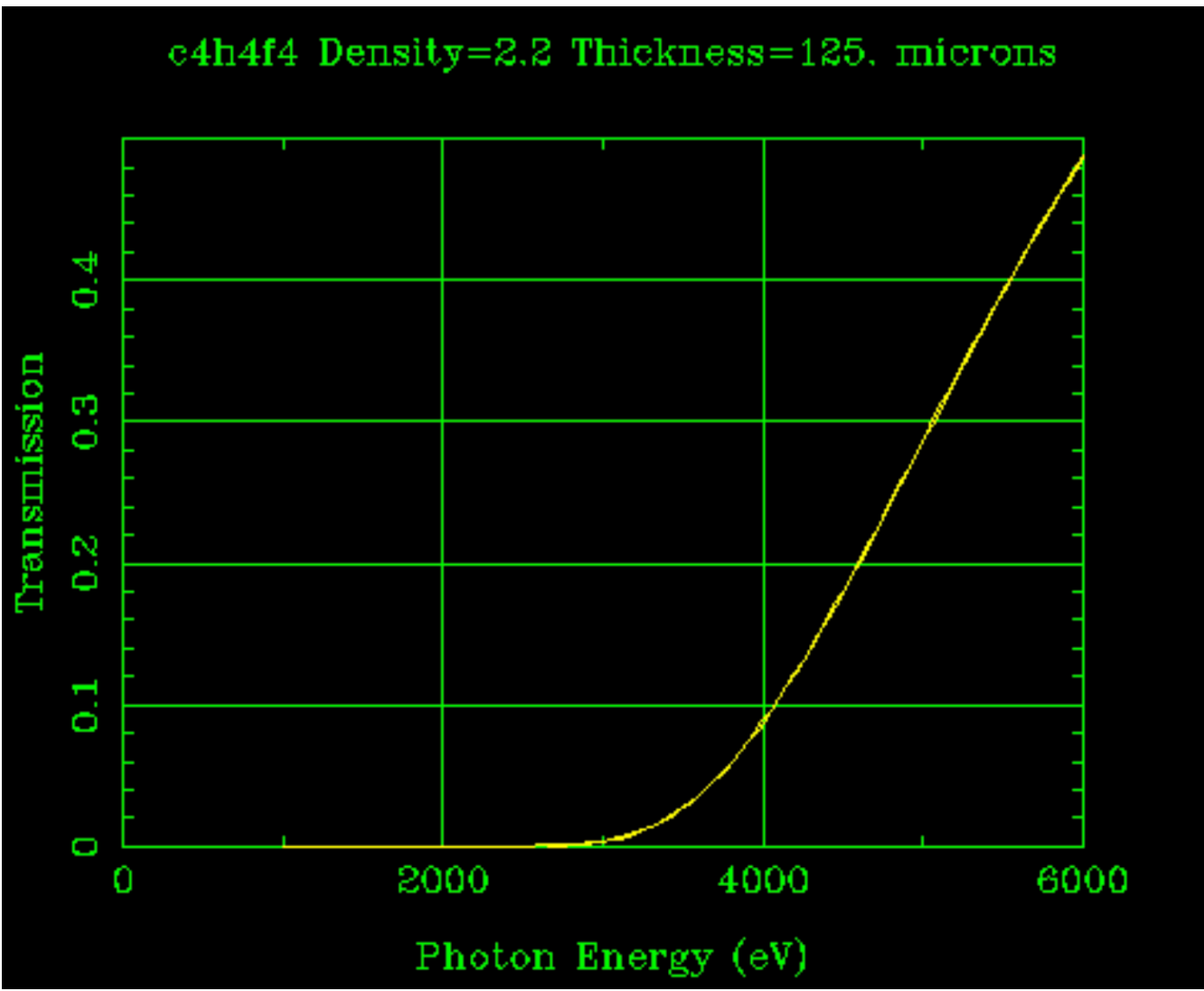
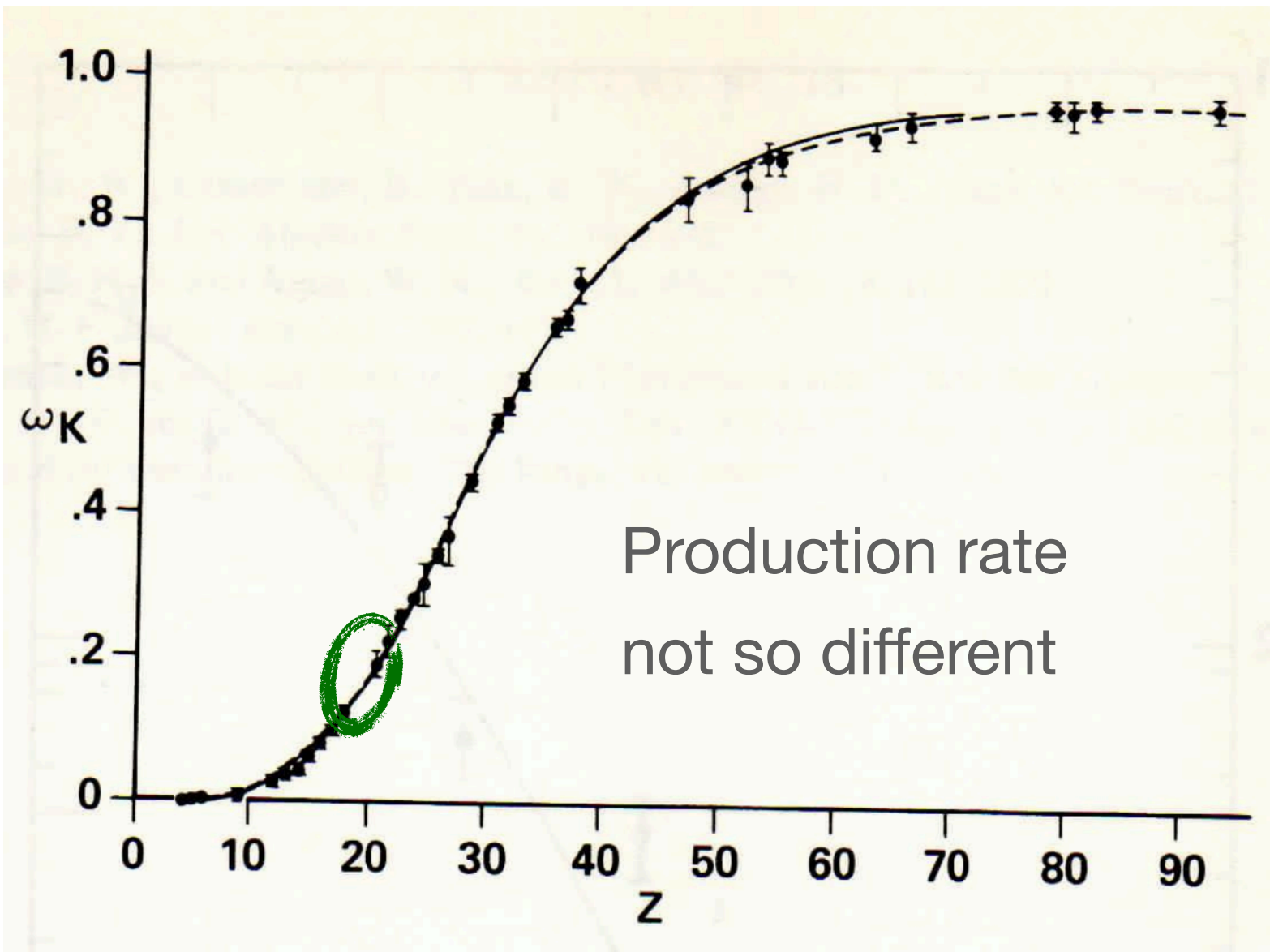


Elemento	Energia do raio X (keV)
Si K $\alpha,\beta$	1,74
S K $\alpha,\beta$	2,31
Cl K $\alpha,\beta$	2,62
K K $\alpha$	3,31
Ca K $\alpha$	3,69
Ti K $\alpha$	4,51

z=17

z=20

z=22

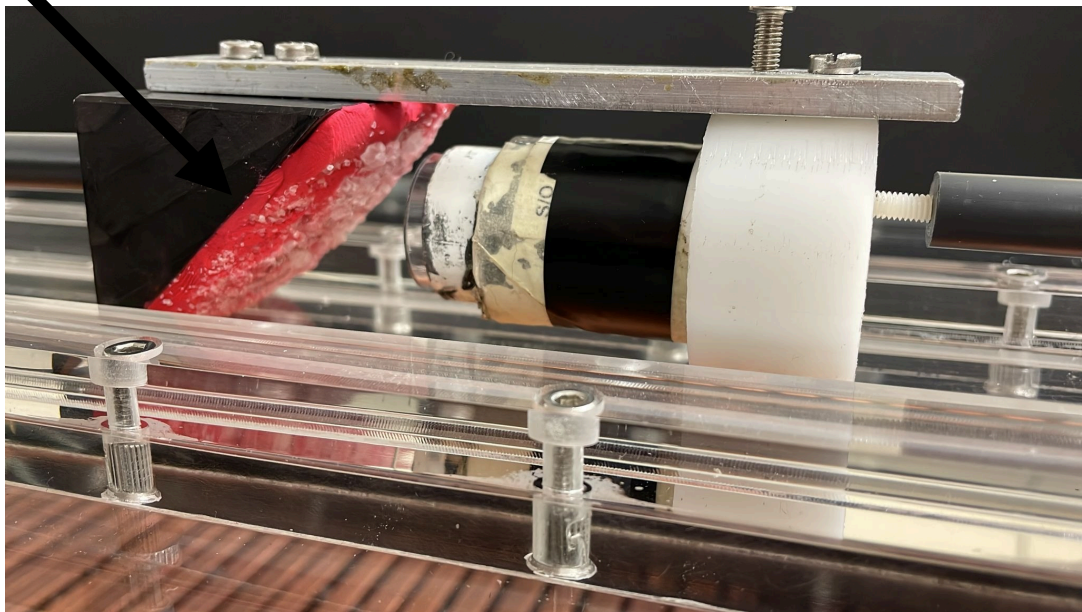
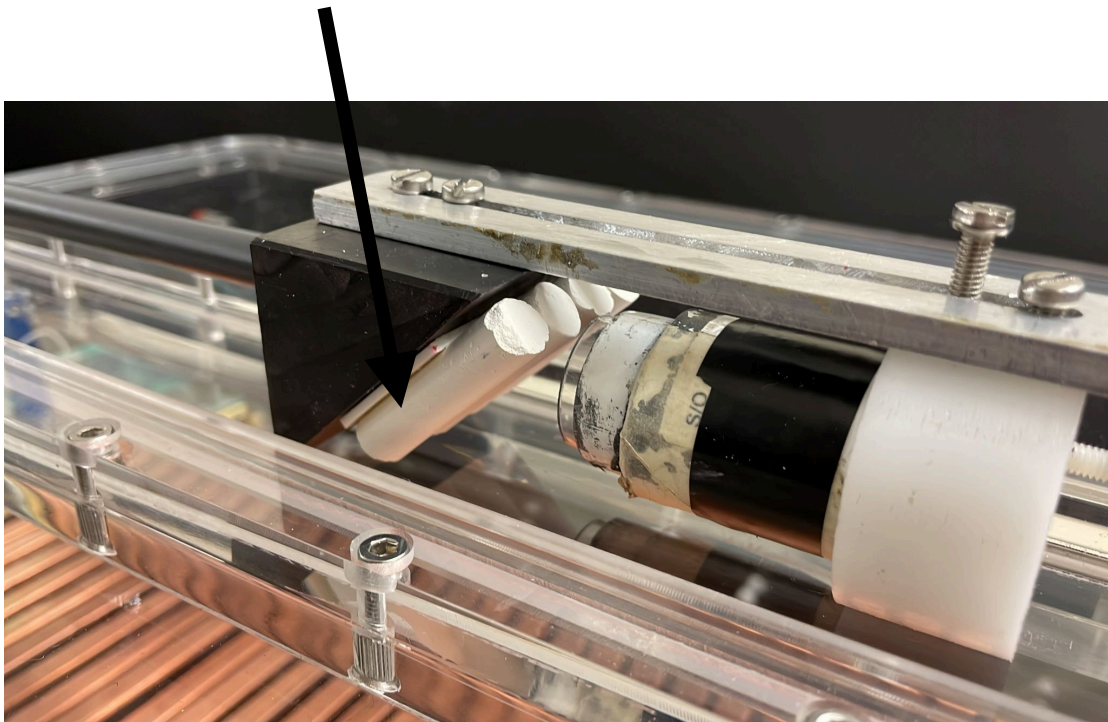
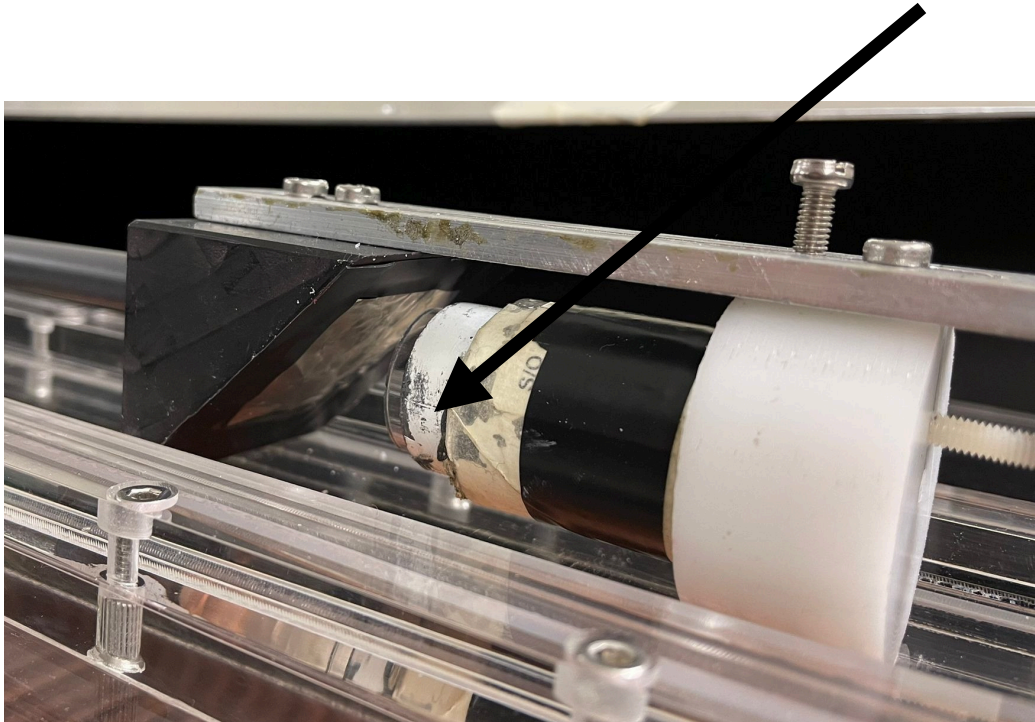


Very different probability of entering the 125



# LIME under test: low energy x rays

We tried Titanium, gypsum (Ca), salt (Cl)

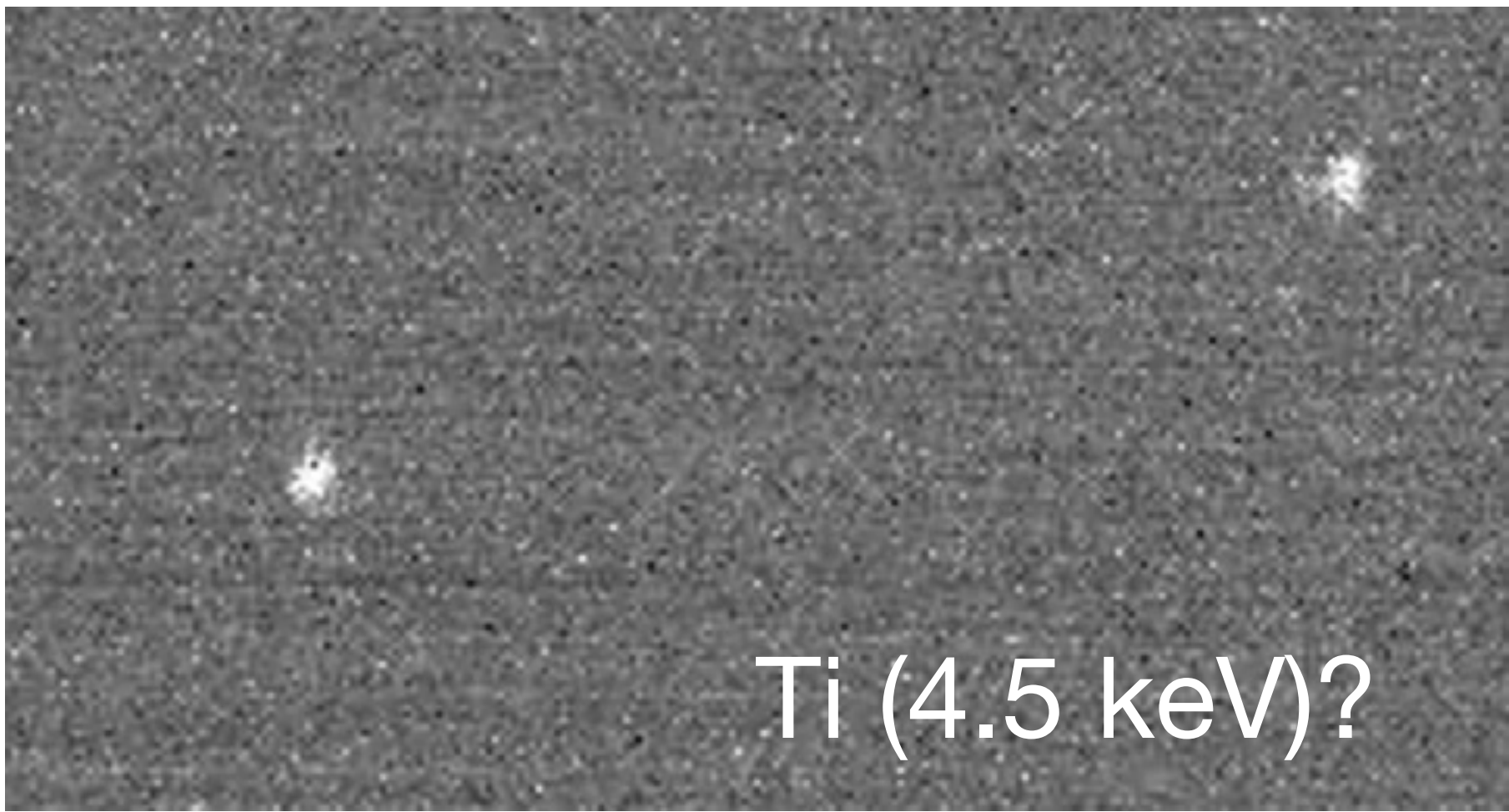
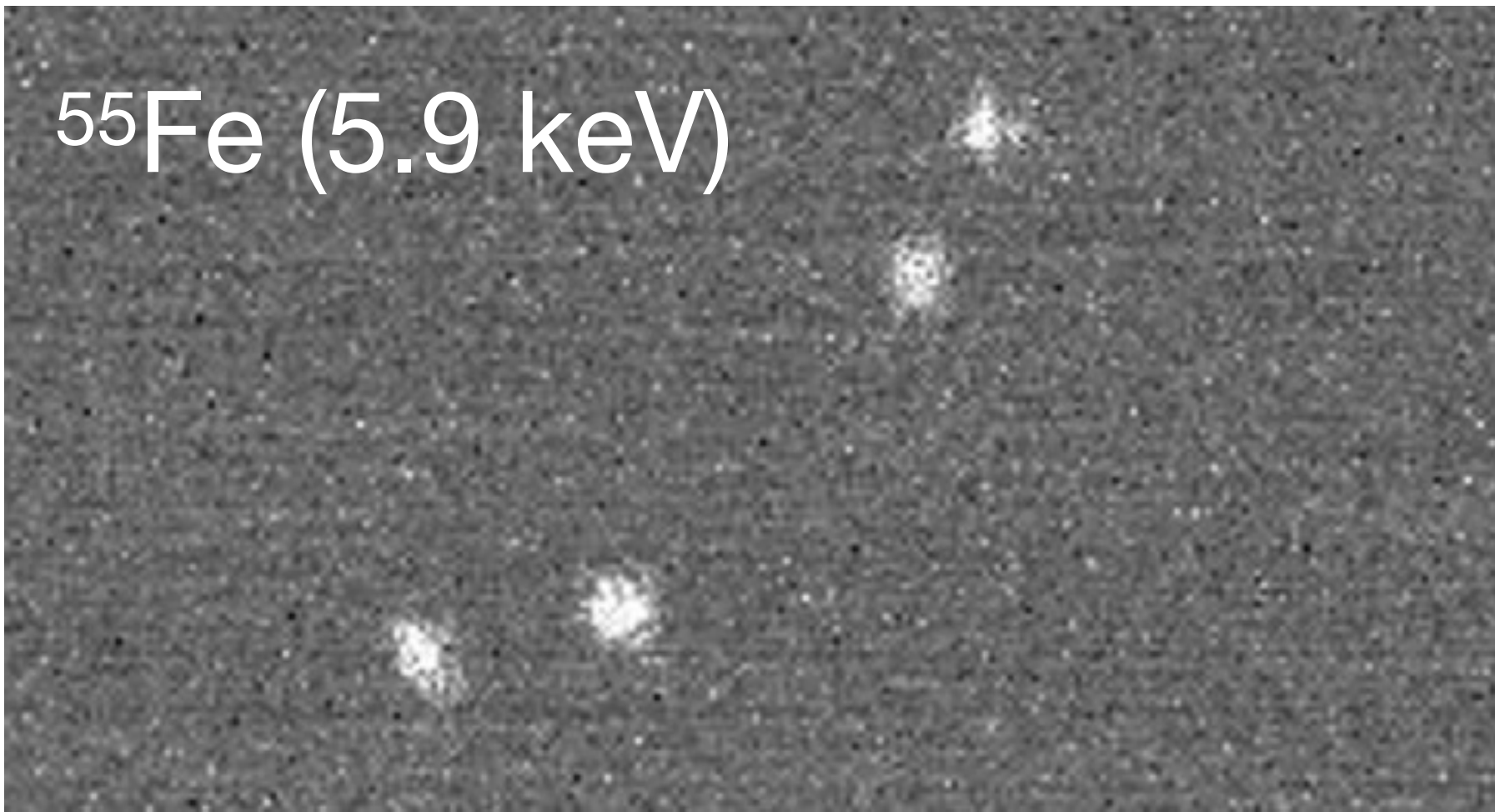


Elemento	Energia do raio X (keV)
Si $K_{\alpha,\beta}$	1,74
S $K_{\alpha,\beta}$	2,31
Cl $K_{\alpha,\beta}$	2,62
K $K_{\alpha}$	3,31
Ca $K_{\alpha}$	3,69
Ti $K_{\alpha}$	4,51

z=17

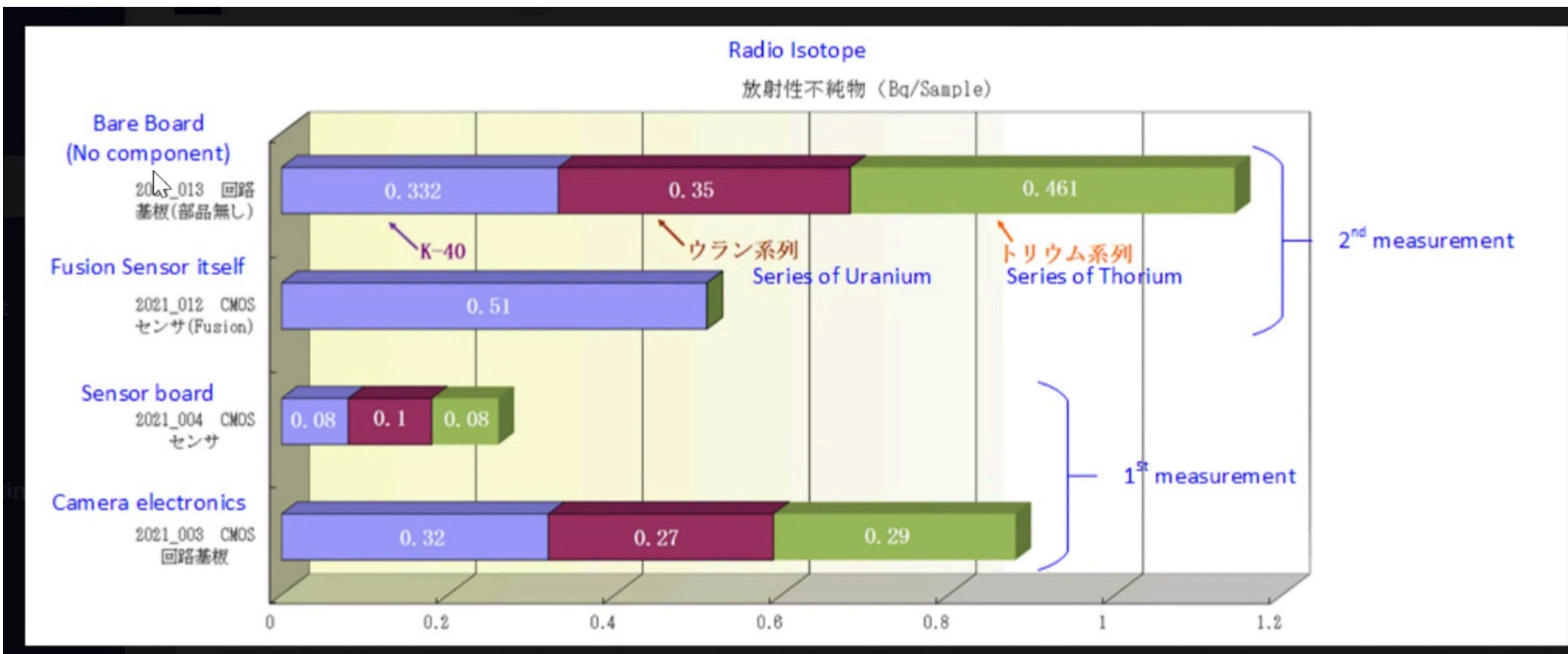
z=20

z=22





# Low rad CMOS



We had a first meeting this morning with R&D Hamamatsu office;  
They confirm presence of K in their sensors.

They are interested in finding a way to reduce radioactivity in their sensor;  
Next week we are going to test a not-cooled solution, while they will check the activity in glasses and support (packaging) of the sensor