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Al-mylar for 9C+p resonance scattering

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To: Evgeniy Milman <milman.evgeniy@gmail.com>

Cc: Satoshi Sakaguchi <sakaguchi@phys.kyushu-u.ac.jp>

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Dear Evgeniy,

Tomorrow afternoon is probably okay for me. We can say around 13:30 or so is okay. My room is CNS 207. But, I think you will be disappointed, because I don't see any information on the roll you can photograph. The rolls are probably more than 10 years old...

I cut two 5 x 5 cm² 10 um Al-mylar foils. I made a template for cutting them. I measured the mass of each one five times, making sure the scale re-zeroed after each trial. I call each sample "A" or "B" and show which trial number it was, and I stuck measurements of B inbetween measurements of A.

A1: 0.0411 g

A2: 0.0409 g

B1: 0.0412 g

B2: 0.0414 g

B3: 0.0410 g

B4: 0.0410 g

B5: 0.0411 g

A3: 0.0410 g

A4: 0.0411 g

A5: 0.0411 g

40.1

I assume a mean will represent these data reasonably. I get foil A average mass of 41.04 mg. I get foil B average mass of 41.14 mg. Between the two, which maybe we should not average, but I do anyway, 40.09 mg or let's say 40.1 mg, which is 1.644 mg/cm². Nominally, it should be 1.397 mg/cm². I think you can see the error in this method is not so large, and clearly yields an amount of mass which should be accounted for by aluminium.

It is 0.2466 mg/cm² of aluminium total, or about 0.91 um of aluminum, 0.45 um per side.

You may play with my samples, or use my method to check more 10 um Al-mylar, or any of the other foils in the clean room. All foils and the scale are there.

Cheers,
daid

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Using	1 um Al	8 11 um mylar,	for run 1041,
	measured	measured	
²² Na	24.4	24.1	
²¹ Na	23.7	23.5	

We can more-or-less reproduce the data.