

## Preliminary FRS beam line parameters for simulations

FRS Objects updated by Frank 19 AUG 05

FRS-object	material	thickness (mg/cm <sup>2</sup> – mm)
<b>Ta</b>		
SIS window	Ti	10 micron
SEETRAM	Ti	13.5 mg/cm <sup>2</sup>
target	<sup>9</sup> Be	
stripper	Nb (natural)	221 mg/cm <sup>2</sup>
<b>S1</b>		
S1-wedge	AlMg3(from ATIMA)	
Slits		
<b>S2</b>		
Scint21	C9H10 (BC420)	choose e.g. 3 mm
S2-wedge	AlMg3(from ATIMA)	(adapt thickness and profile angle)
Slits		
<b>S3</b>		
Slits		
<b>S4</b>		
exit window	Ti	90 mg/cm <sup>2</sup>
	Air gap	~ 30 mm
RISING MW41_AIR	Mixture (from ATIMA)	100 mm
	Air gap	240 mm
MUSIC-TUM 41	Mixture (from ATIMA)	460 mm
Nb foil (optional)	Nb	0.25 mm
	Air gap	230 mm
RISING MW42_AIR	Mixture (from ATIMA)	100 mm
	Air gap	170 mm
X - SLITS	horizontal	
	Air gap	270 mm
Y - SLITS	vertical	
	Air gap	260 mm
Scint41b	C9H10 (BC420) is this in some vacuum ? windows ??	– 3mm or 0.5 mm or 1 mm ???
	Air gap	420 mm
Degrader (glass wedge) or (Aluminum)	SiO <sub>2</sub> /SiO <sub>2</sub> (from ATIMA) or AlMg <sub>3</sub> (from ATIMA)	Variable (488 – 6252 mg/cm <sup>2</sup> ) or Variable (48.6 – 7646 mg/cm <sup>2</sup> )
Air gap	air	~ 1 m ( ~ 100 mg/cm <sup>2</sup> )
Plastic degrader / crystal	C8H8 / Cu	To be decided / 1800 mg/cm <sup>2</sup>