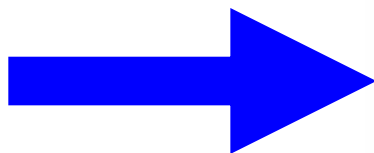


Misure a ORNL & LNL

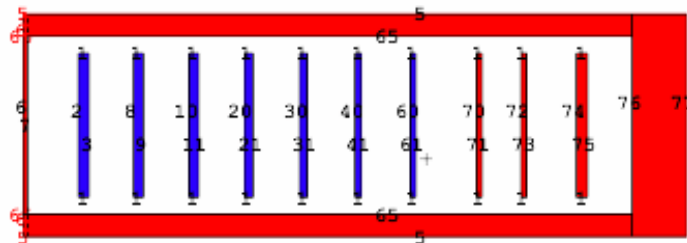
SPES -Target Group

Baseline Parameters



Proton : $E = 40 \text{ MeV}$

Beam Spot: $\sim 13 \text{ mm}$

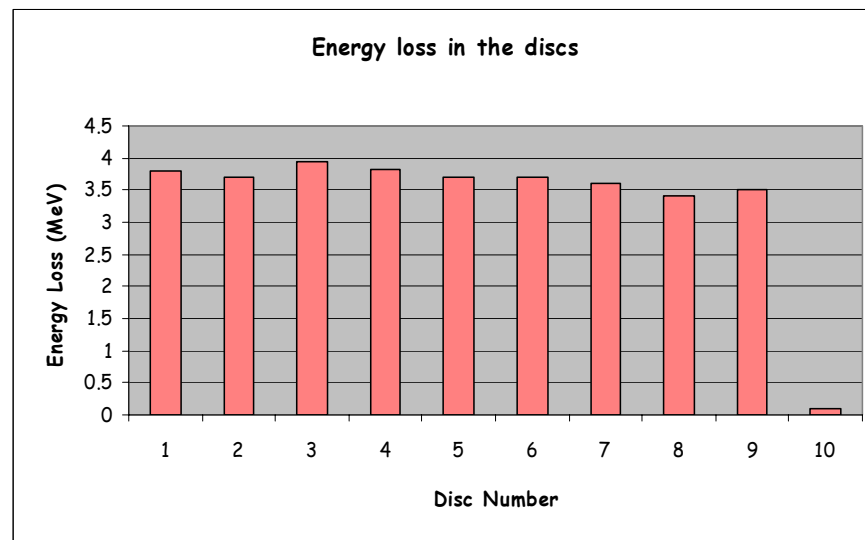
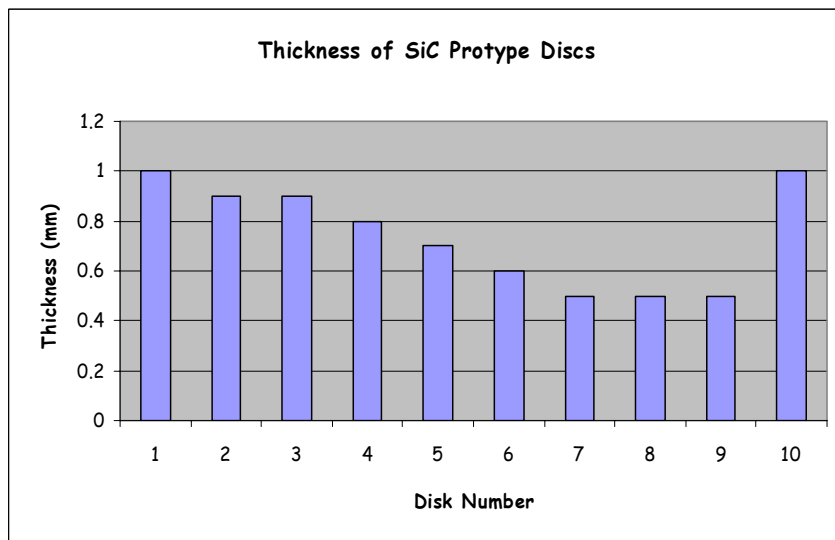


Energy Loss in the
front window: 1 MeV

Energy Loss in the
cylinder: 2.8 MeV

Pellet Thickness Optimization:

Constant Energy Beam Sharing in the 7 discs





Hexoloy® SG Silicon Carbide

Saint-Gobain Advanced Ceramics
Structural Ceramics

Hexoloy® SG Silicon Carbide is a unique electrically conductive analog of sintered silicon carbide.

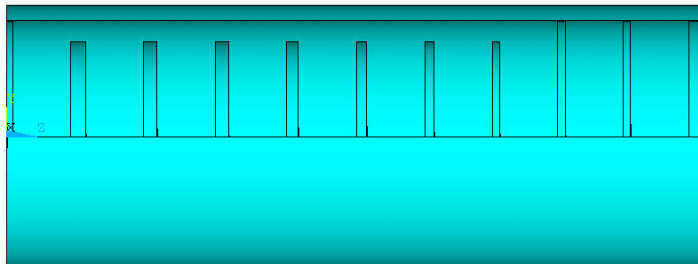
Technical Specifications

Property	Units	Measurement Technique	Value
Phases	—	X-ray Diffraction	SiC (6H, 4H, 15R), C
Density	gm/cm ³	—	3.0
Hardness	kg/mm ²	Knoop, 100 gm load	2800
Flexural Strength Room Temperature	MPa	ASTM C-1161, 4-point	311
Weibull Modulus	—	ASTM C-1161, 4-point	18
Young's Modulus	GPa	Pulse Echo	376
Shear Modulus	GPa	Pulse Echo	161
Poisson's Ratio	—	Pulse Echo	0.17
Fracture Toughness (Room Temperature)	MPa.m ^{1/2}	Indentation, 10 kg load	3.9
Coefficient of Thermal Expansion (RT-700°C)	10 ⁻⁴ mm/mm K	Dilatometry	4.6
Mean Specific Heat @ RT	J/g K	Laser Flash ASTM E 1461-92	0.65
Thermal Conductivity @ RT	W/m K	Laser Flash ASTM E 1461-92	118
Thermal Conductivity @ 200°C	W/m K	Laser Flash ASTM E 1461-92	92
Thermal Conductivity @ 400°C	W/m K	Laser Flash ASTM E 1461-92	70
Electrical Resistivity	Ohm-cm	—	1.0
Free Carbon	%	Combustion	5.35
Total Carbon	%	Combustion	34.6

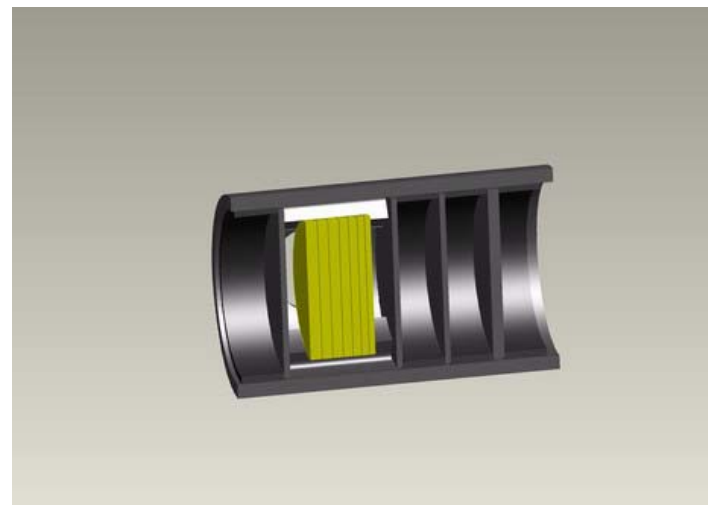
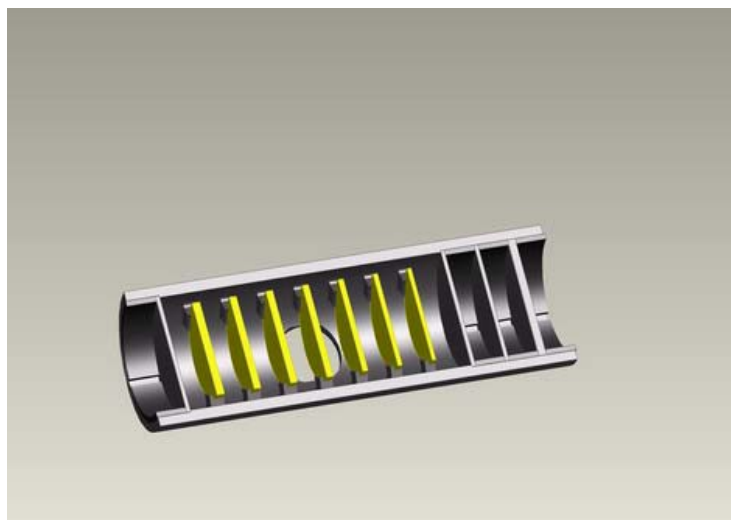
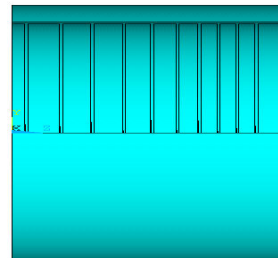


Test of two Configurations:

'Spes like'



'Ornl like'



When? (..end november ?)

