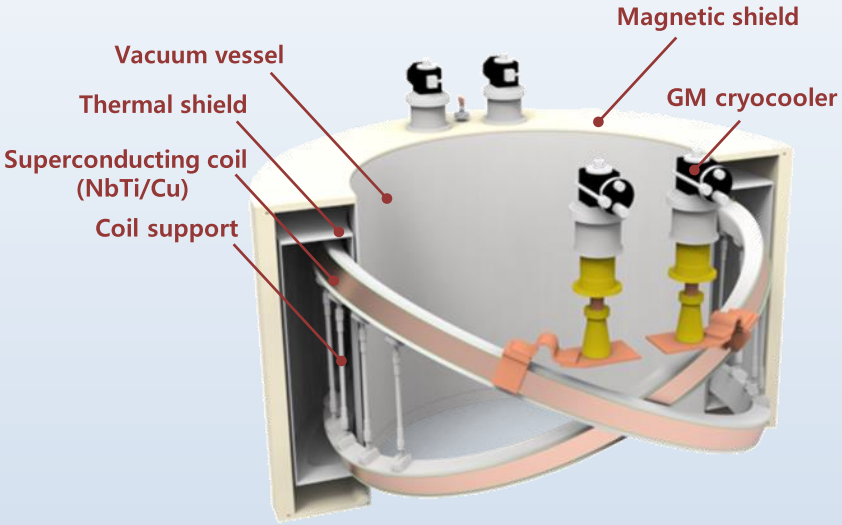
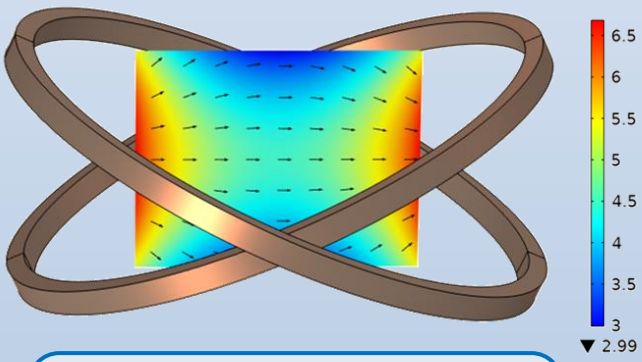
12inch Grower Superconducting Magnet

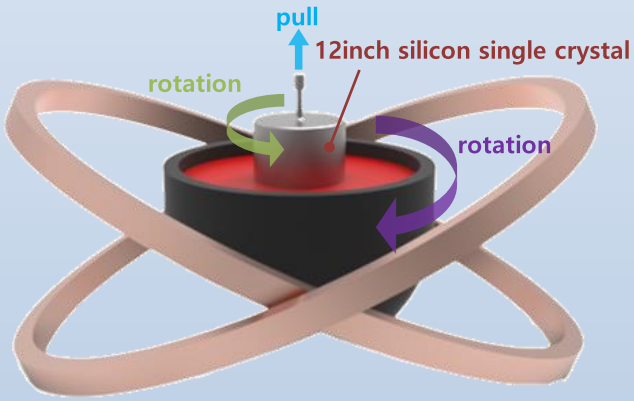
Geometry of Superconducting Magnet



Effect of Magnetic Field on Silicon Single Crystal Growth



Transverse magnetic field direction



Purity ↑
Growth rate ↑

Process efficiency ↑
Good quality

Specification

- Inner diameter: 1,600 mm
- Outer diameter: 2,400 mm
- Height: ~1,700 mm
- Weight: ~9 ton
- Magnetic field (at center): 0 ~ 4500 Gauss
- Operating current: 0 ~ 170 A
- Cooling type: Conduction cooling (LHe free)
- No. of cryocooler: 4

Features of KR TECH Superconducting Magnet

Simple Operation

Low Operating Costs

Easy Maintenance

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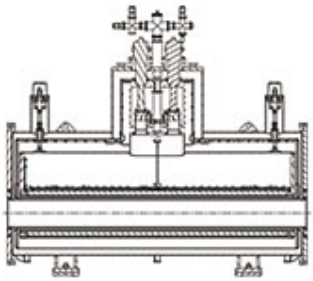
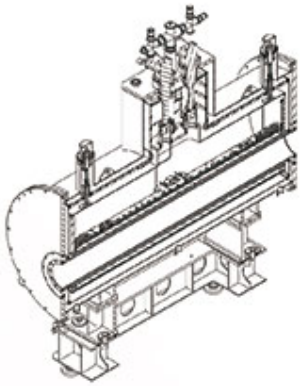
KRTECH
Magnet technology

SSM-7T

7T- Solenoid Superconducting Magnet





Specification

Size	W 2300 x H 2785 x D 1080 (mm) RT Bore ø204 mm	Inductance	127.5 H
Magnetic Field	7 T	Wire Size	W 1.4 x H 0.95 NbTi (mm)
Homogeneity	Axis 1300 x R 10 ± 0.3 %	Driving Type	PCS
Coil Turns	55,472 Turns/Coil	Magnet Cooling	LHe Recondensing Type
Current	207 A	Weight	8 ton

KRTECH
Magnet technology

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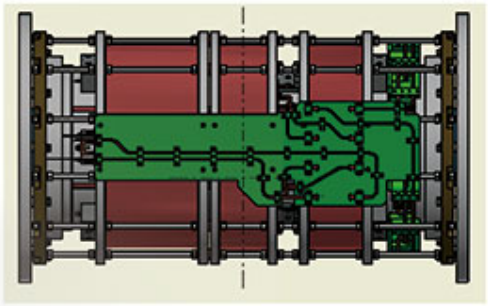
Magnet technology

SM-28

Superconducting Magnet for 28 GHz ECR Ion Source



Specification

	Solenoid#1	Solenoid#2	Solenoid#3	Hexapole
Inner Diameter (mm)	ø 442	ø 442	ø 442	
Outer Diameter (mm)	ø 540.8	ø 540.8	ø 540.8	
Wire Size (mm)	W 1.4 x H 0.95	W 1.4 x H 0.95	W 1.4 x H 0.95	W 1.4 x H 0.95
Coil Turns/Coil (Turns)	9,360	4,784	5,408	2.304 x 6
Current (A)	197	198	197	263
Bmax (T)	5.98	5.35	4.72	7.65

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HT-SM#1

Helmholtz Type Superconducting Magnet #1

Specification

Size	W 1200 mm x H 2250 mm x D 1450 mm G 400 mm x ID 600 mm
Magnetic Field	1.5 T
Coil Turns	7,400 Turns/Coil
Current	100 A
Inductance	251.6 H
Wire Size	Ø 0.77 mm NbTi
Weight	7 ton

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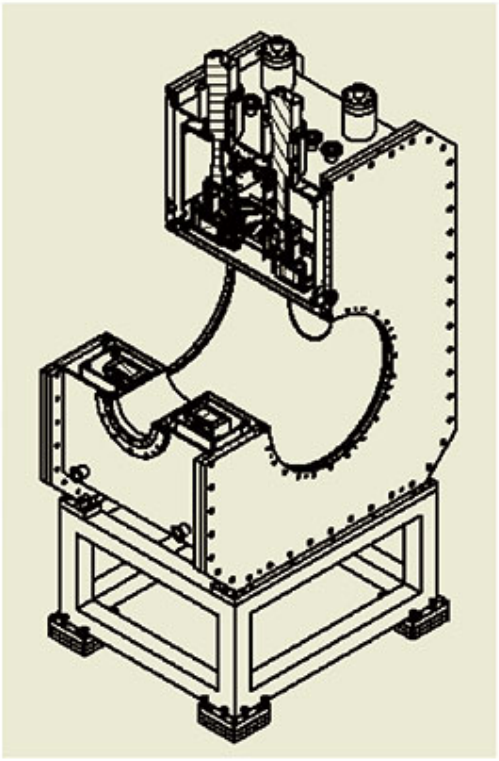
HT-SM#2

Helmholtz Type – Superconducting Magnet #2



Specification

Size	W 1200 mm x H 2364 mm x D 810 mm ID1 600 mm x ID2 204 mm
Magnetic Field	1.5 T
Coil Turns	9,650 Turns/Coil
Current	70.13 A
Inductance	119.81 H
Wire Size	Ø 0.77 mm NbTi
Weight	1.5 ton

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