

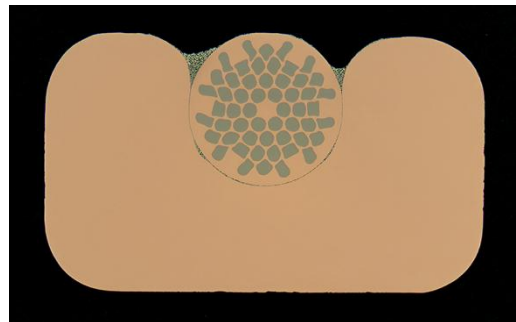
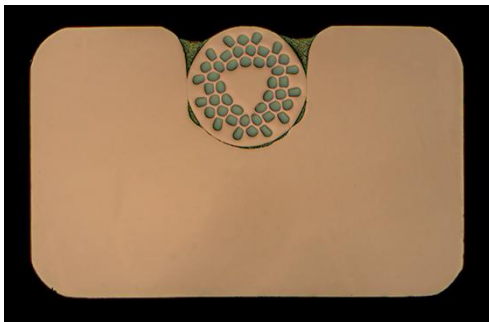
NbTi for MRI application

- High Cu ratio strand wires

Wire in Channel

$a \times b = 1.10 \times 1.70 \text{ mm}^2 \text{ to } 2.15 \times 4.25 \text{ mm}^2$

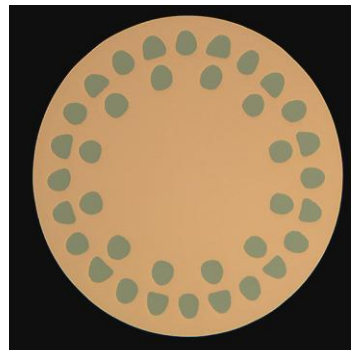
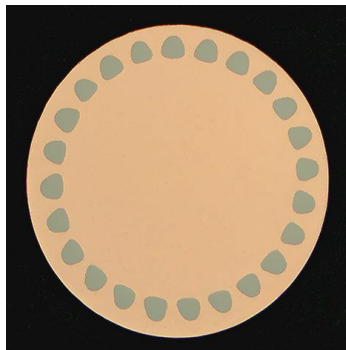
Cu : NbTi ratio 5 to 20



Monolith wires

Number of filaments 17 to 36

Cu : NbTi ratio 4 to 10



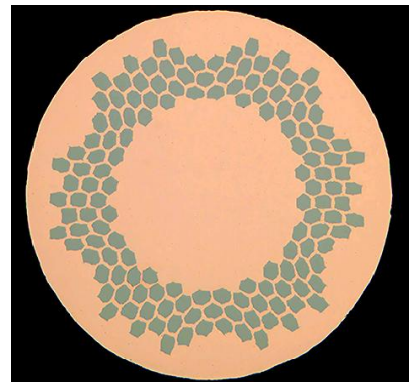
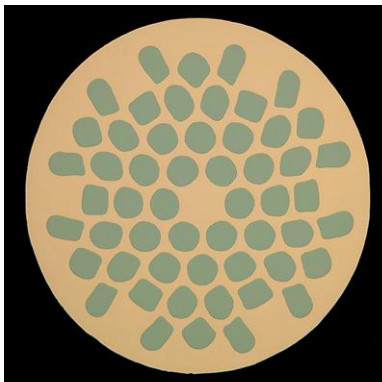
Bruker EAS GmbH
info@bruker-eas.com
www.bruker-est.com

NbTi for NMR and other applications

- Low Cu ratio strand wires

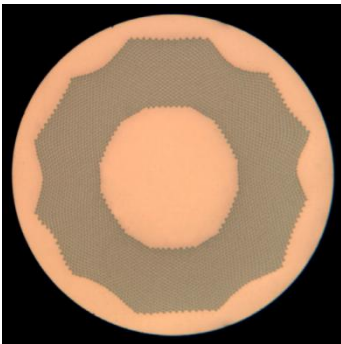
Monolith wires

- Number of filaments: 45 to 150
- Cu : NbTi ratio: 1.3 to 2.6



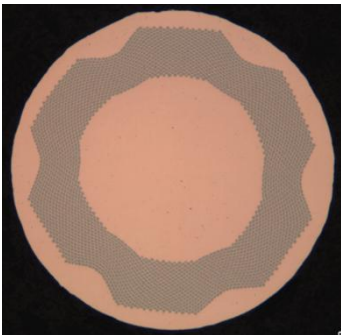
NbTi for Fusion application

● Fine filaments PF wires



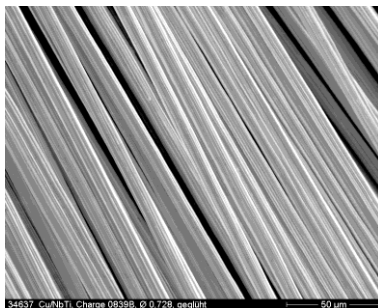
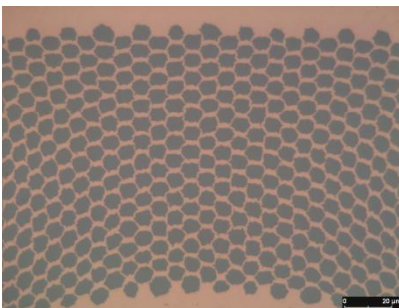
Wire type 1

- Cu:NbTi ≈ 1.65
- Number of filaments 4185
- wire diameter 0.73 mm
- Filament diameter $\approx 8 \mu\text{m}$



Wire type 2

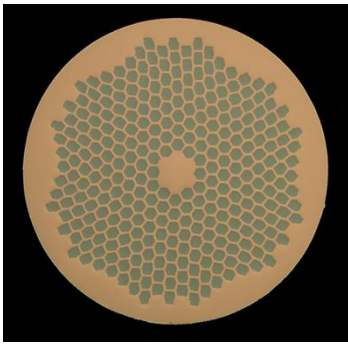
- Cu:NbTi ≈ 2.35
- Number of filaments 3282
- wire diameter 0.73 mm
- Filament diameter $\approx 8 \mu\text{m}$



$J_c_{\text{NbTi}} \approx 3100 \text{ A/mm}^2$
@ 5T, 4.2K

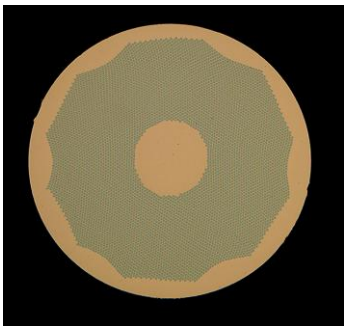
NbTi for High Energy Physics application

● Special strand wires



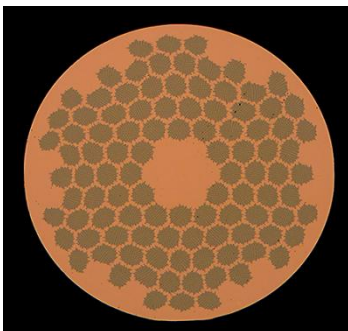
ATLAS strand

- F306 Ø 1.30 mm
- Cu : NbTi = 1.15
- Filament diameter $\approx 50 \mu\text{m}$
- $I_c = 1700 \text{ A @ } 5 \text{ T; } 4.2 \text{ K}$



LHC MQY quadrupole strand

- F6360 Ø 0.735 mm
- Cu : NbTi = 1.25
- Filament diameter $\approx 6 \mu\text{m}$
- $I_c = 550 \text{ A @ } 5 \text{ T; } 4.2 \text{ K}$



LHC dipole strand

- F8670 Ø 1.065 mm
- Cu : NbTi = 1.65
- Filament diameter $\approx 7 \mu\text{m}$
- $I_c = 540 \text{ A @ } 7 \text{ T; } 4.2 \text{ K}$