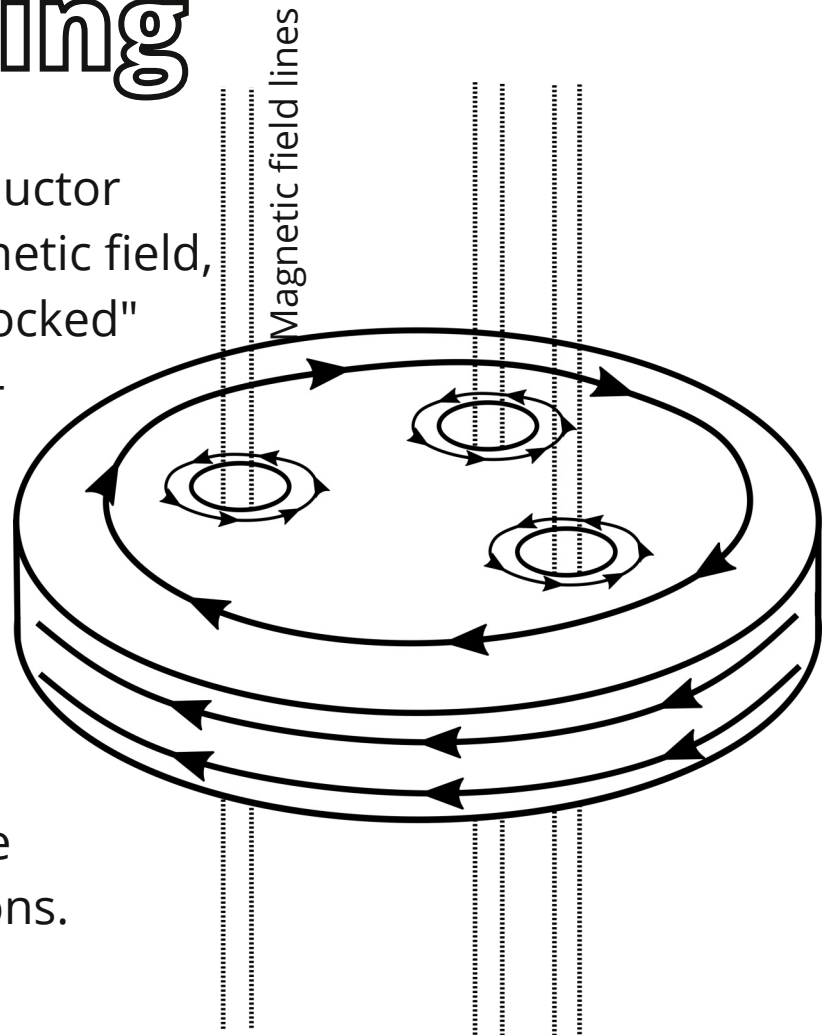


Flux pinning

If you cool the superconductor down while it is in a magnetic field, the magnetic field gets "locked" into the superconductor - this is known as 'flux pinning'. The field will find little imperfections and defects in the superconductor and go through those, and little electric currents will circle around these imperfections.



When a superconductor has the magnetic field pinned in it, it doesn't want to change that magnetic field at all. This means that the superconductor wants to stay exactly where it is, so it will float above the magnet, or it will hang underneath the magnet, always at exactly the distance it was at when it was cooled down.

