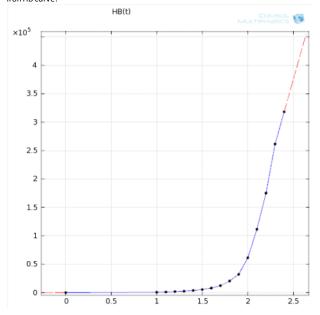
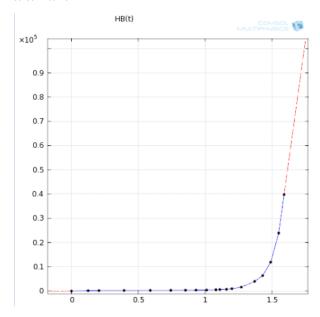
$\bullet \quad \text{The iron and SS430 simulation deviate more after the current density increases but are very close to each other.}\\$ 

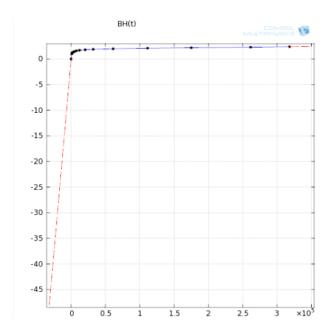
## Iron HB curve:



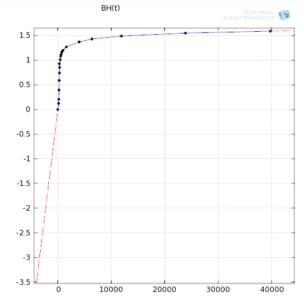
## SS430 HB curve:



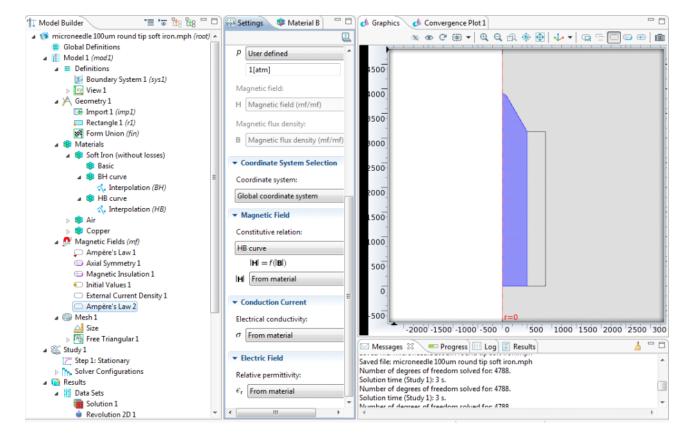
Iron BH curve



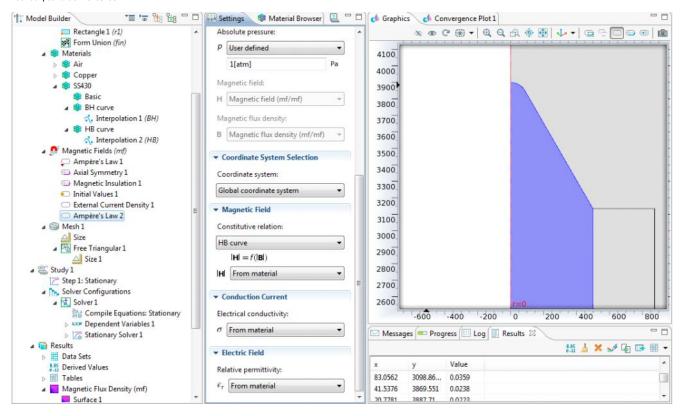




Boundary condition for iron core

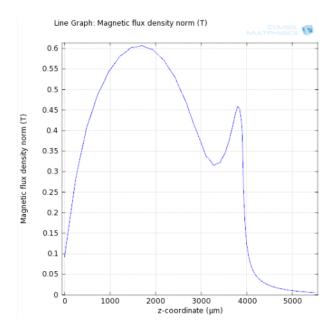


## Boundary condition for SS430

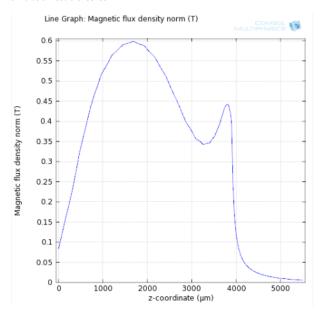


Plot the B value along the central axis from 0um (bottom) to 5500  $\,$  um (about 1500um away from the tip)

Simulation result for iron



## Simulation result for SS430



Plot magnetization along central axis (M)

Iron:

