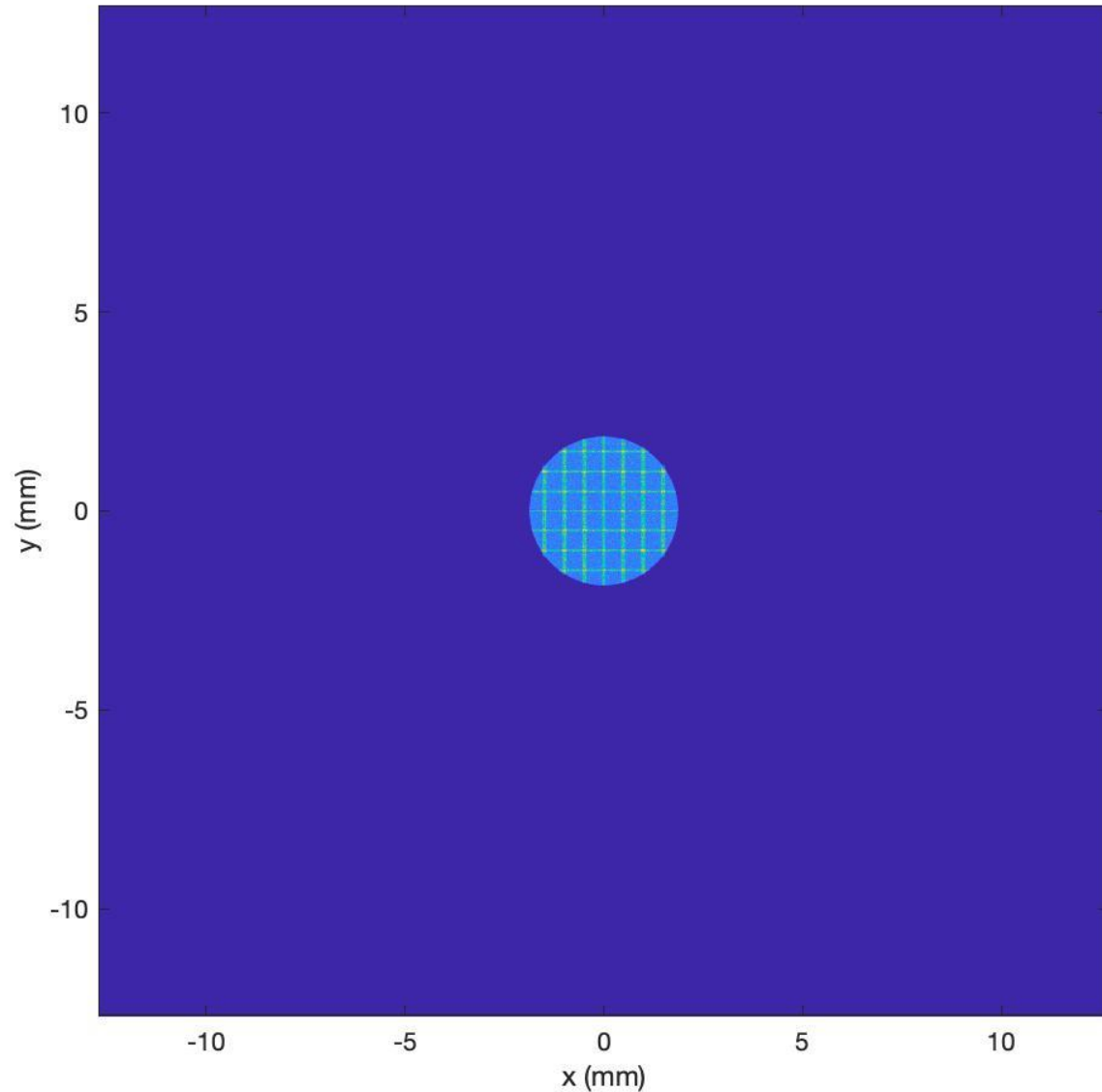


Laser Imprint Study with Impact-T

Kai Shih

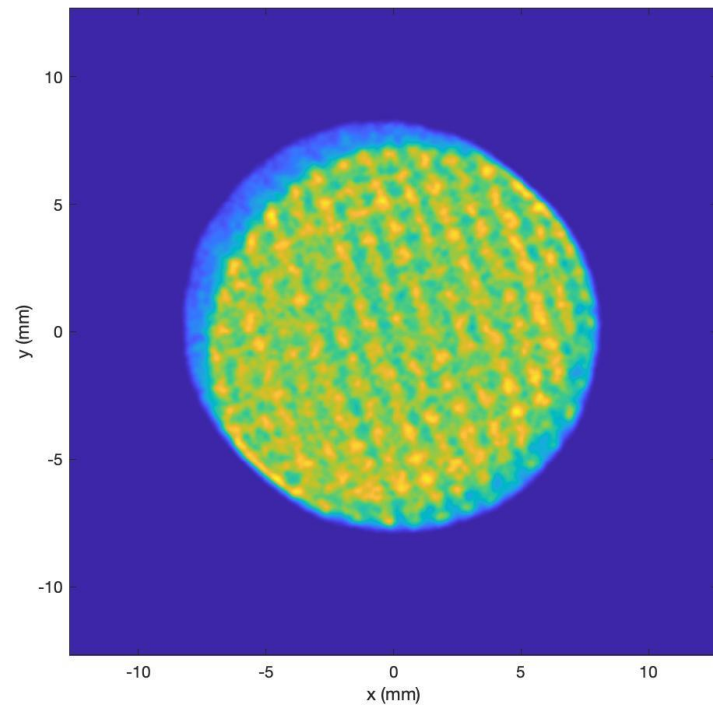
8/17/2021

Cathode

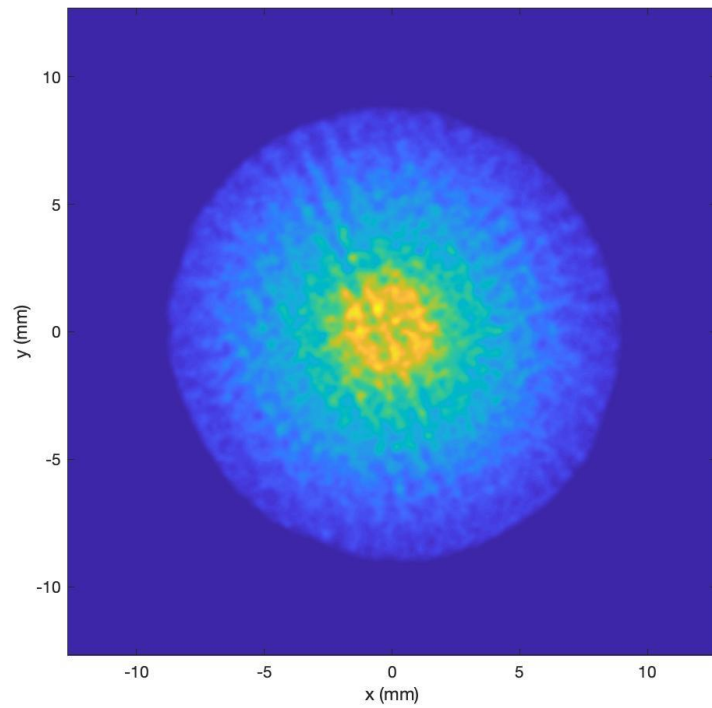


- ~ 700k particles
- 1 gridline ~ 1% tot. particles
- simulation mesh 64 * 64
- Gridline width 0.05mm
- Gridlines spacing 0.5 mm

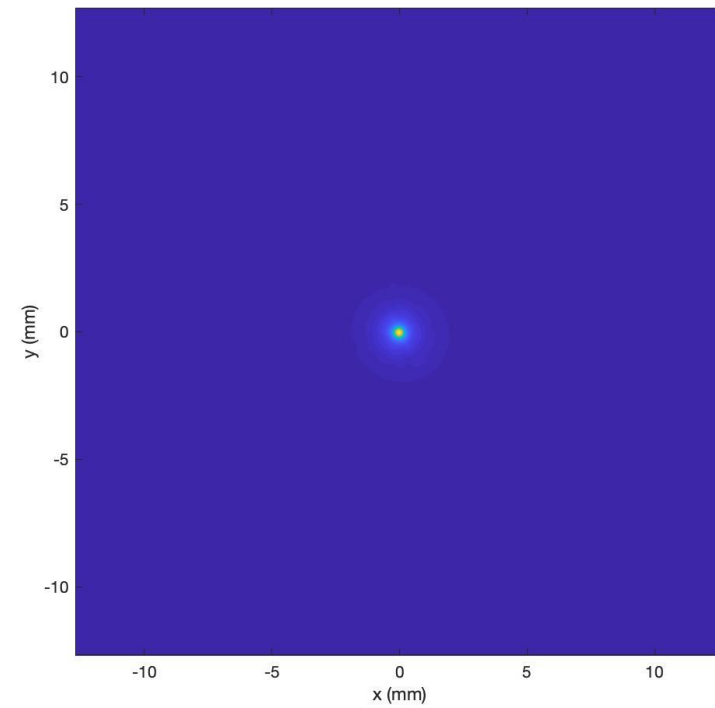
YAG 1

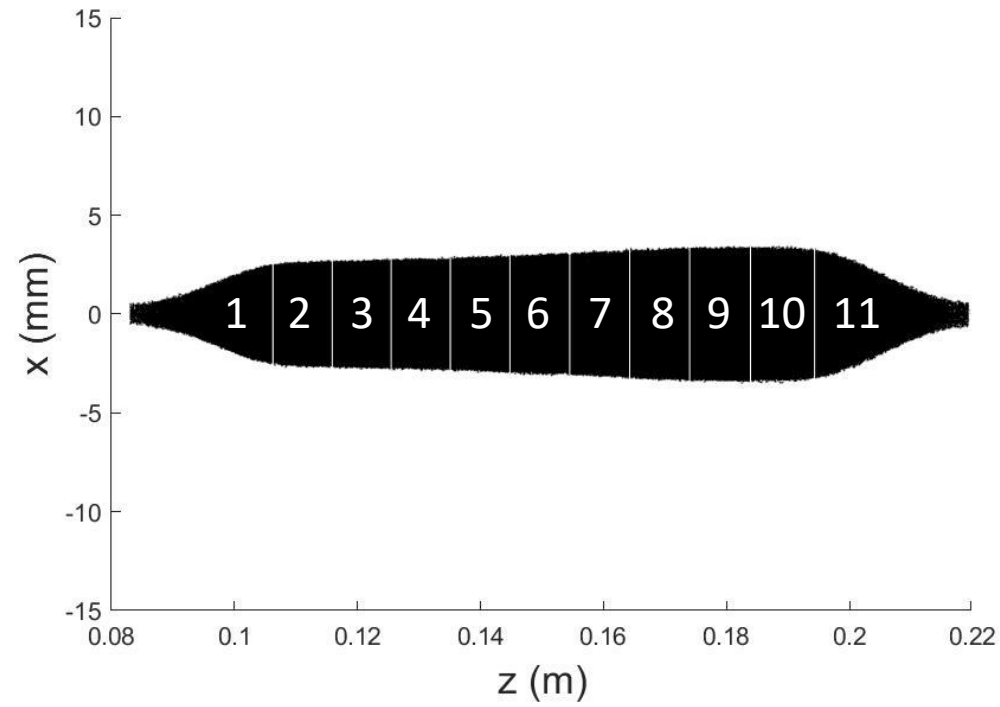


YAG 2

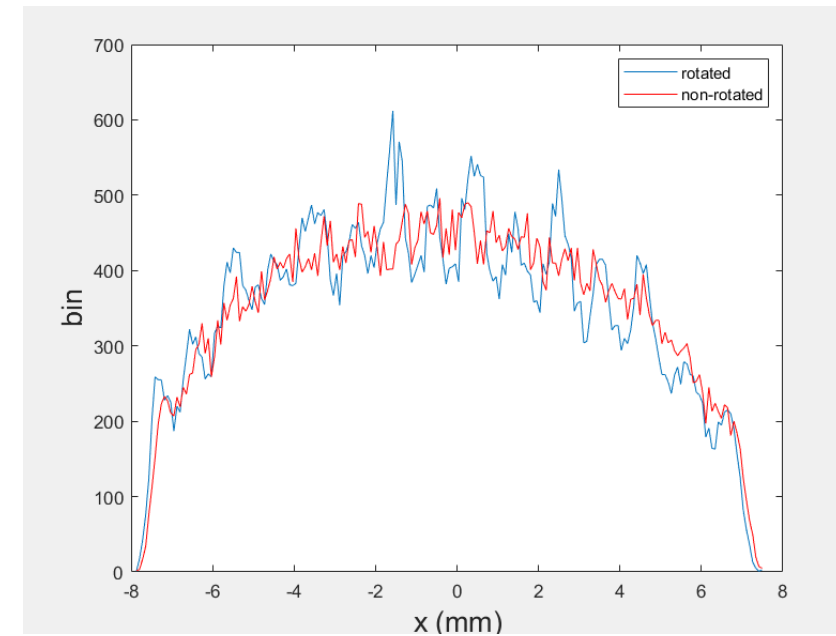
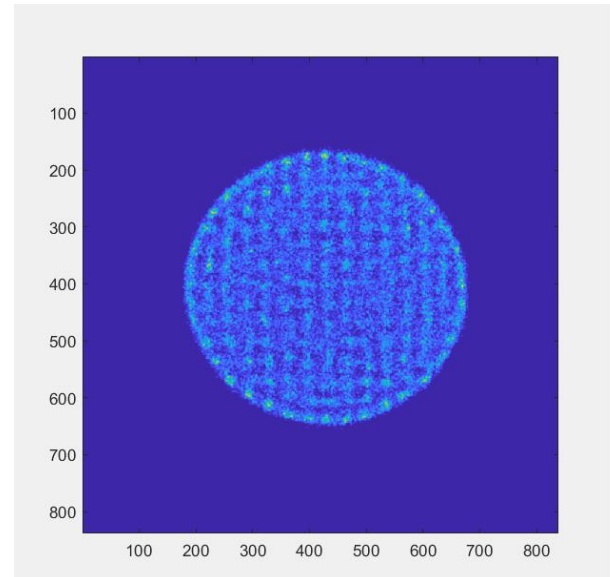
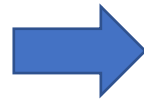
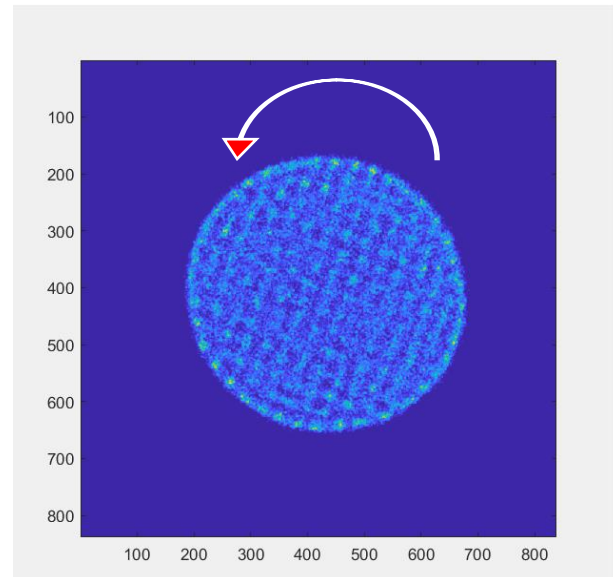


13 m

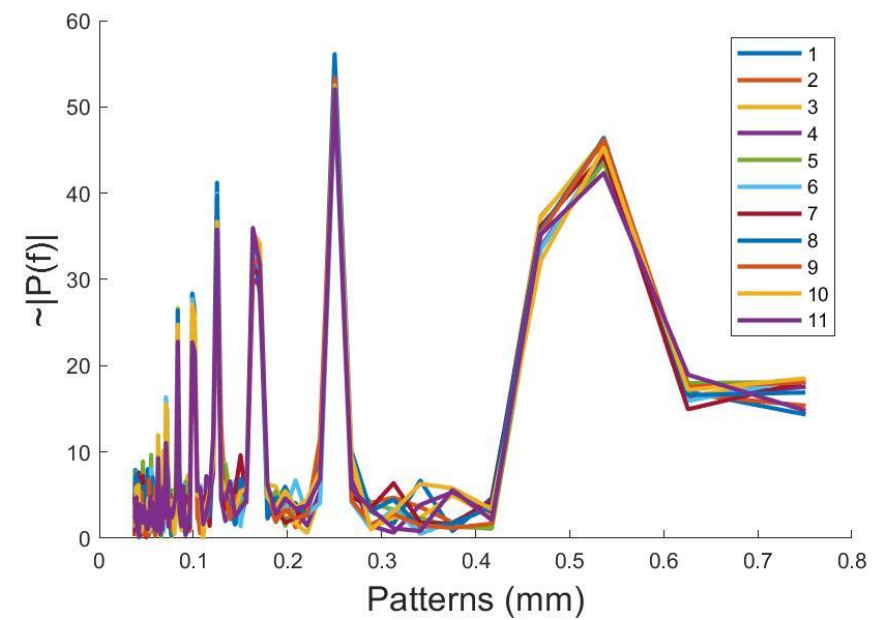
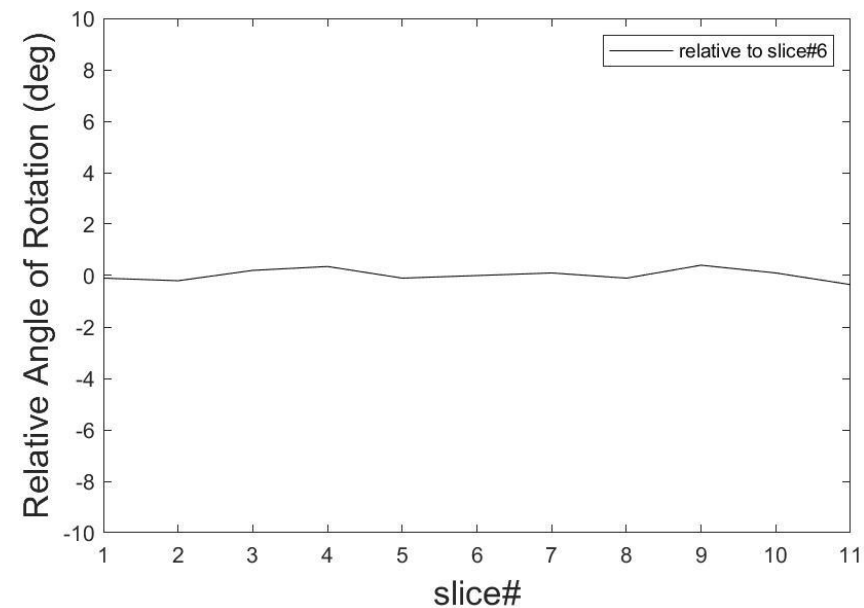
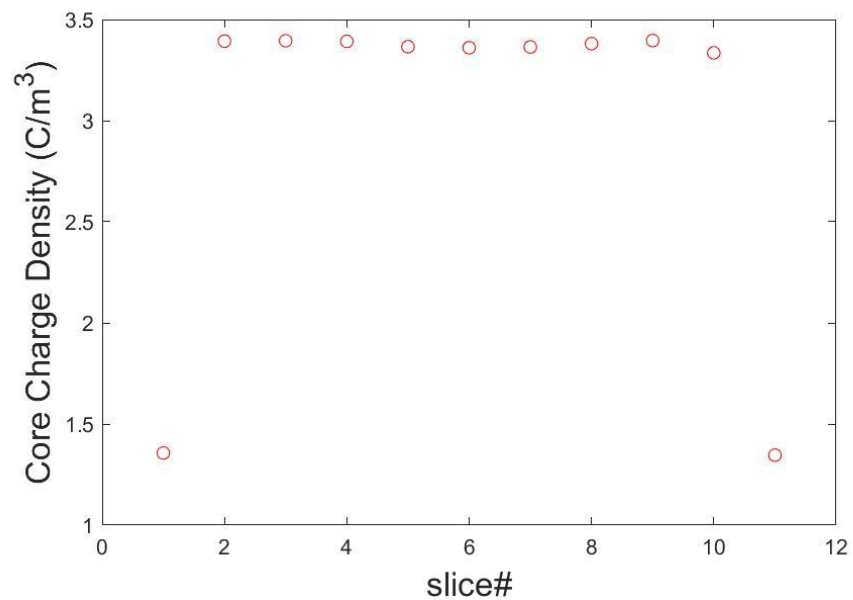
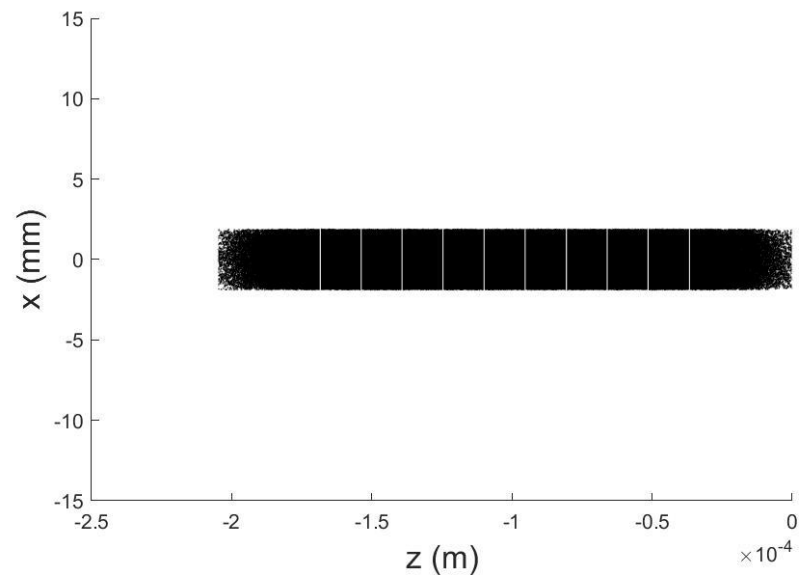
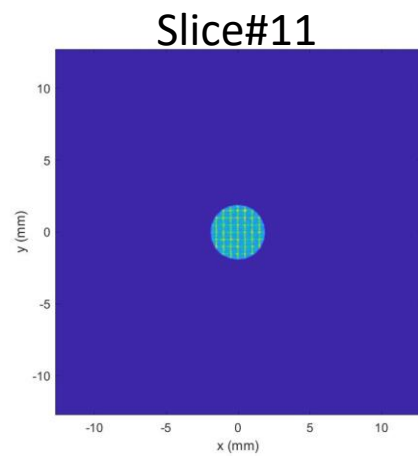
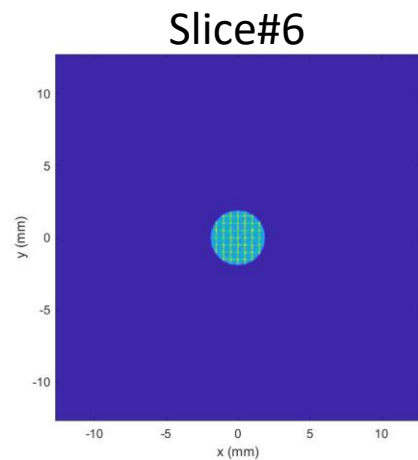
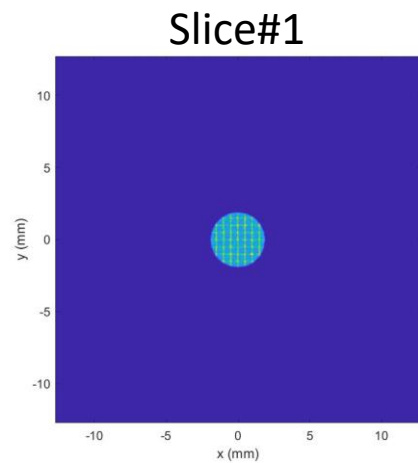




- Beam slices have equal charges
- Each slice will be rotated separately for FFT

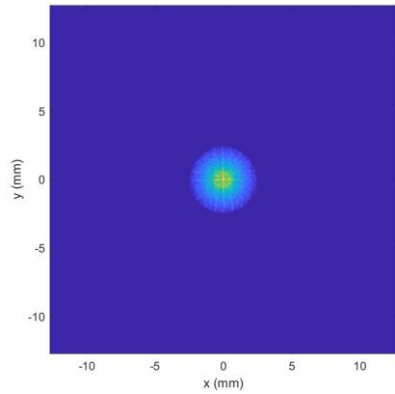


Cathode

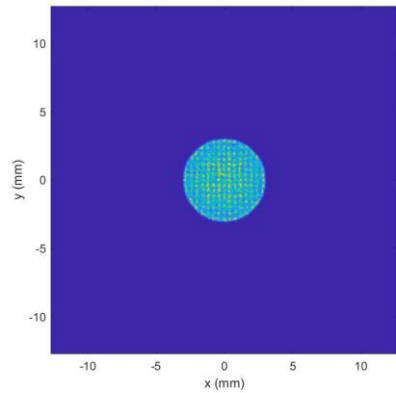


0.15 m (inside Gun)

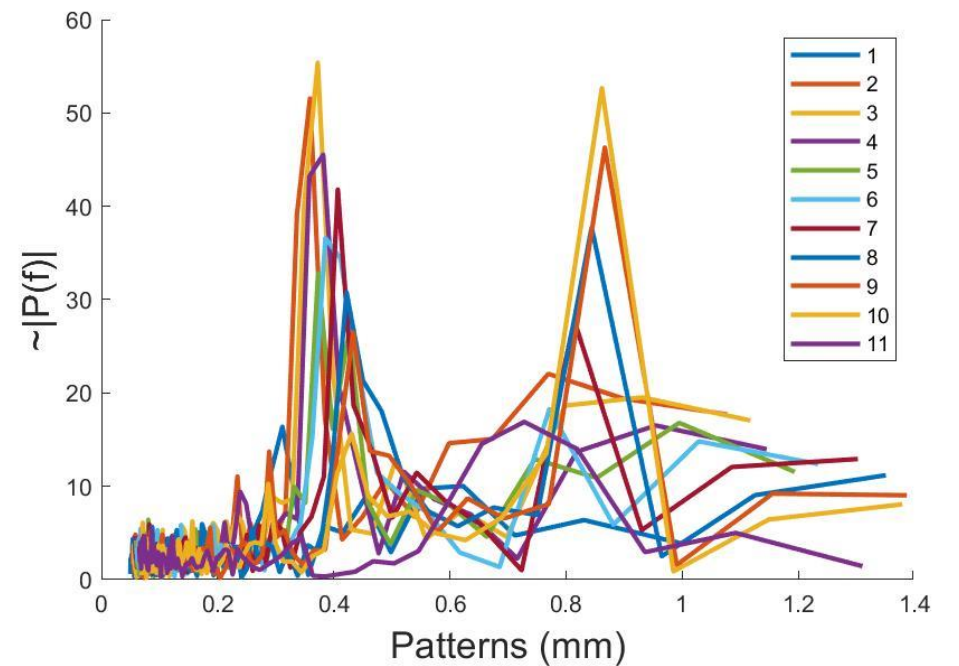
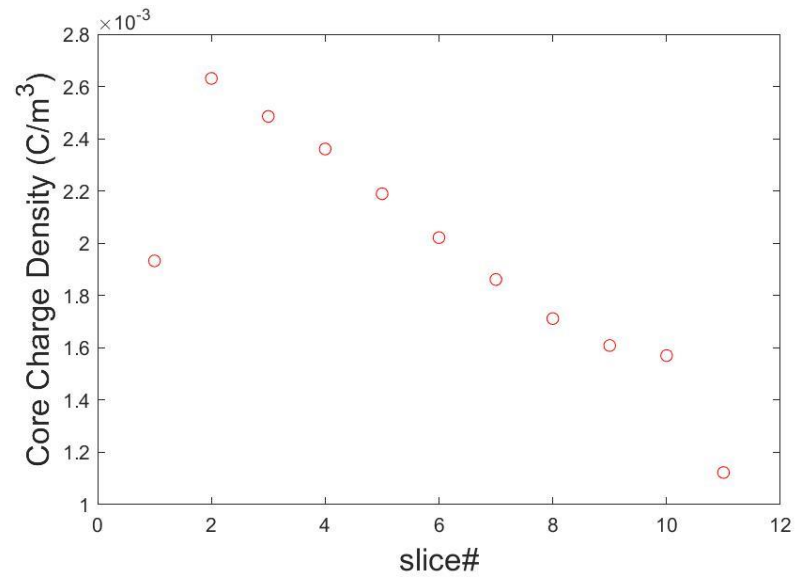
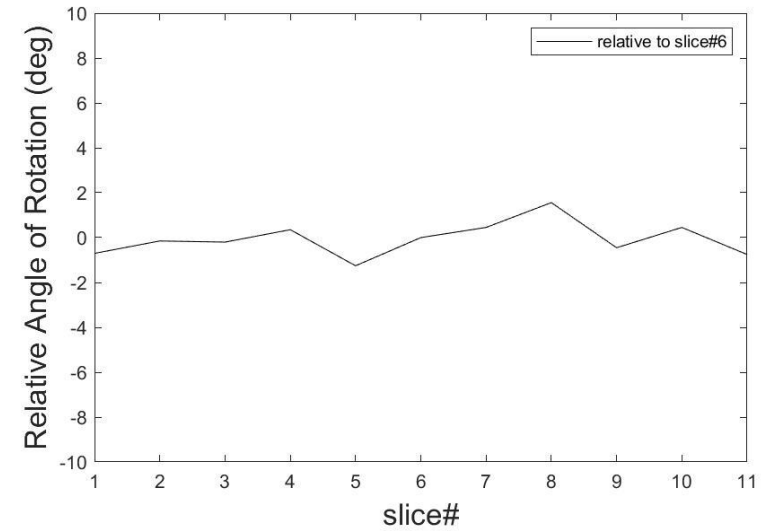
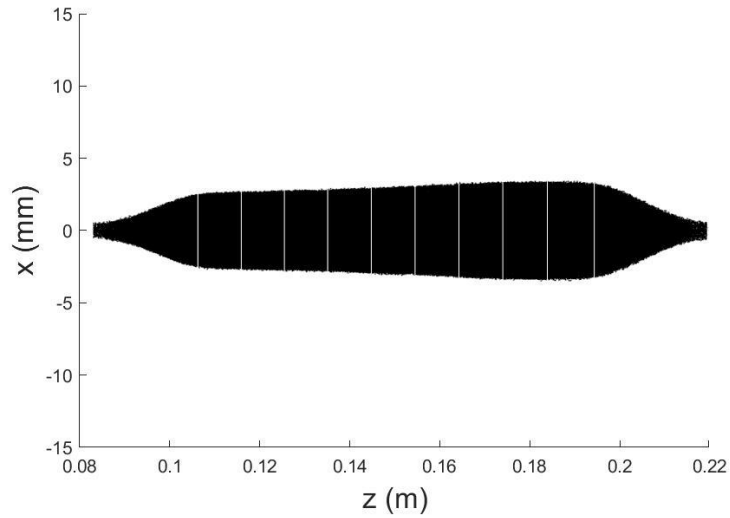
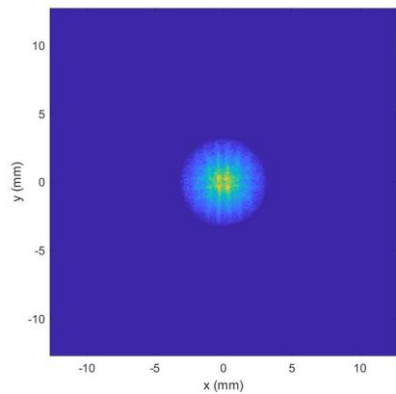
Slice#1



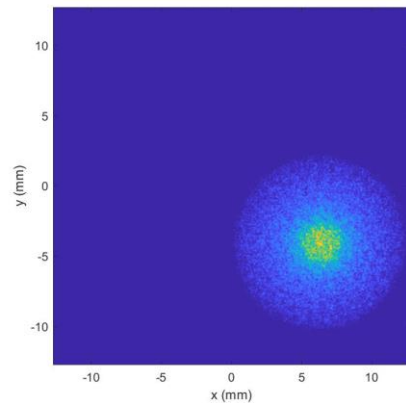
Slice#6



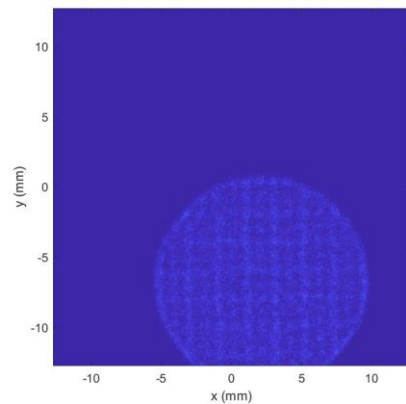
Slice#11



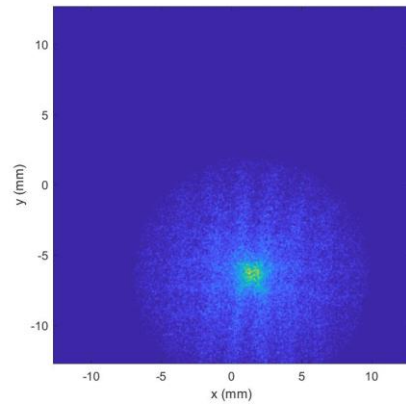
Slice#1



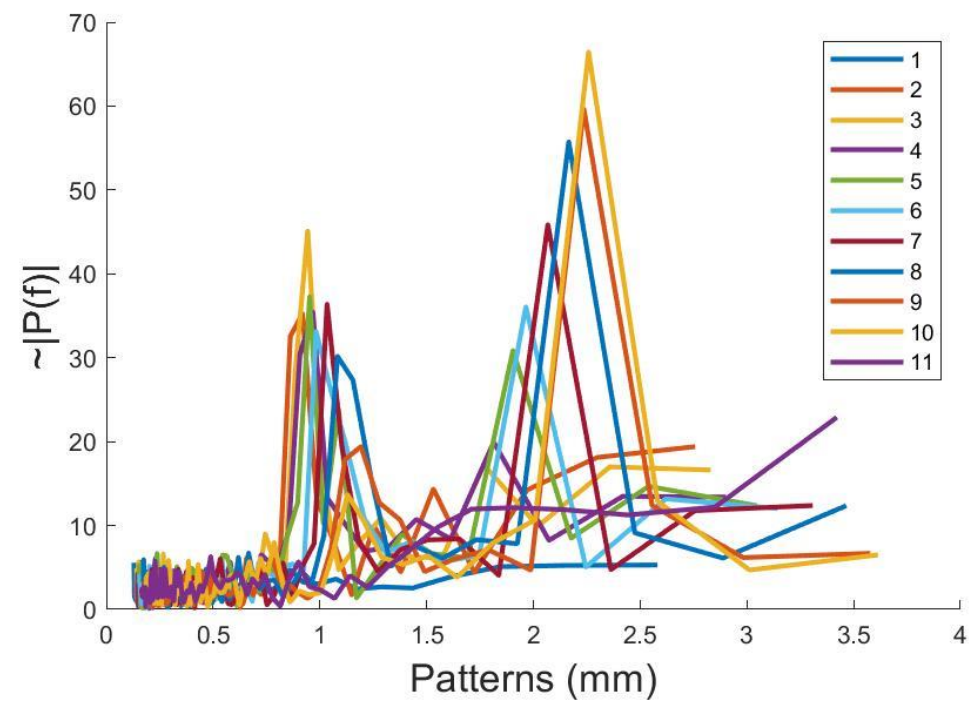
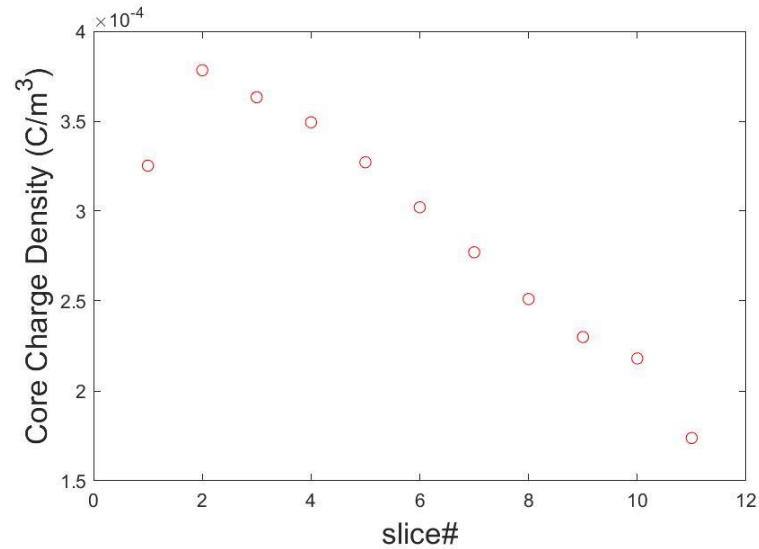
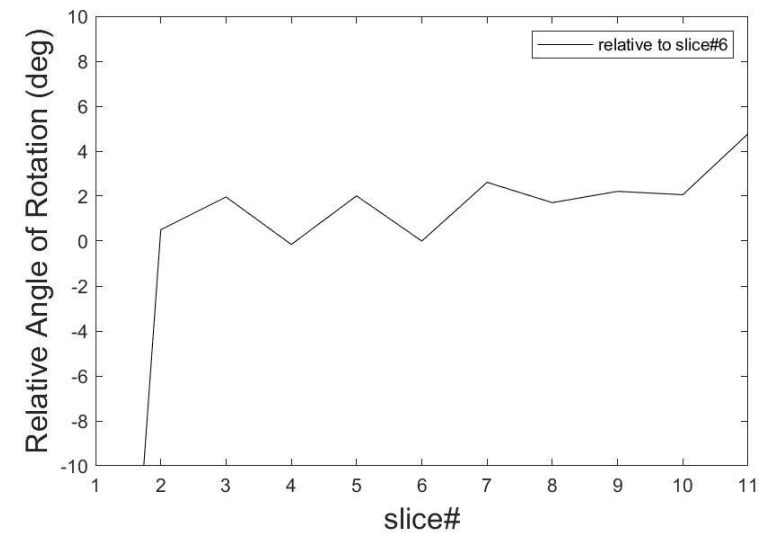
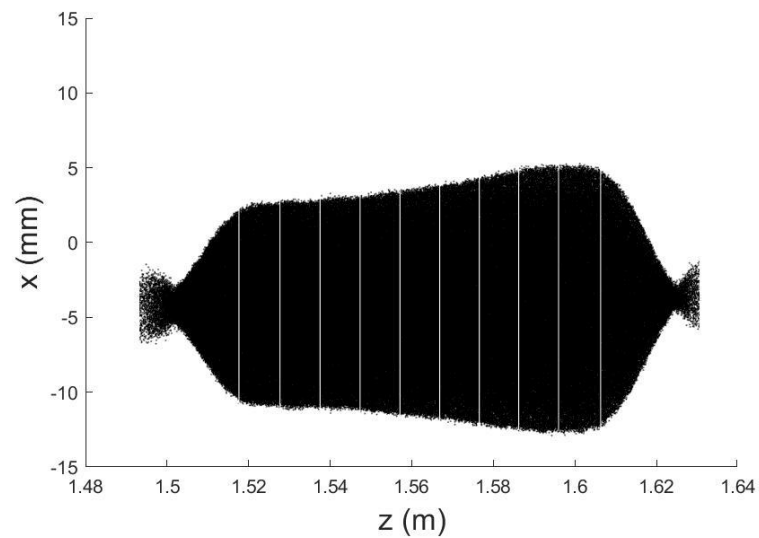
Slice#6



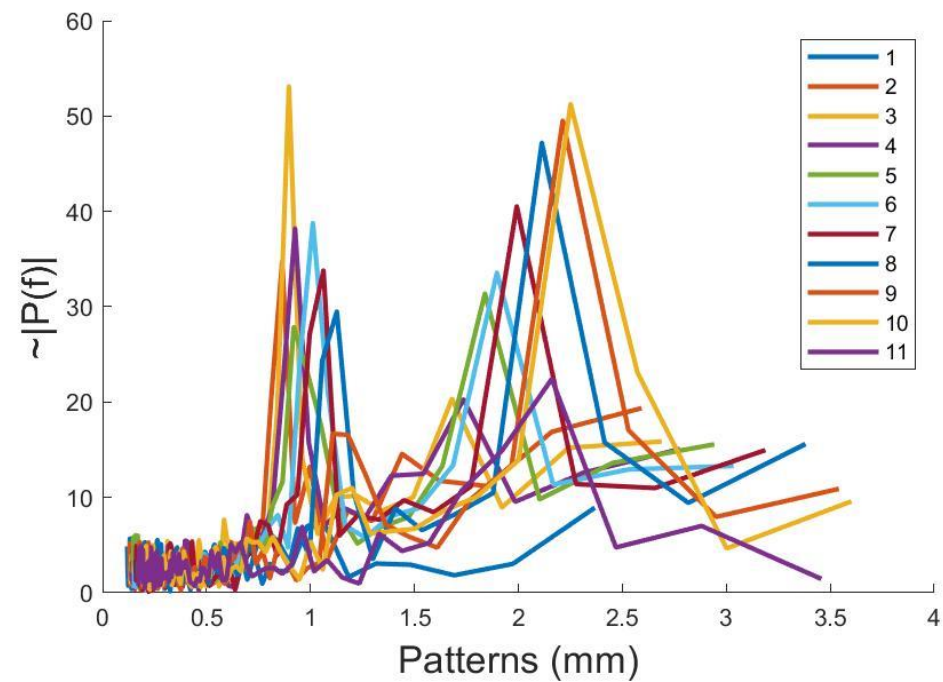
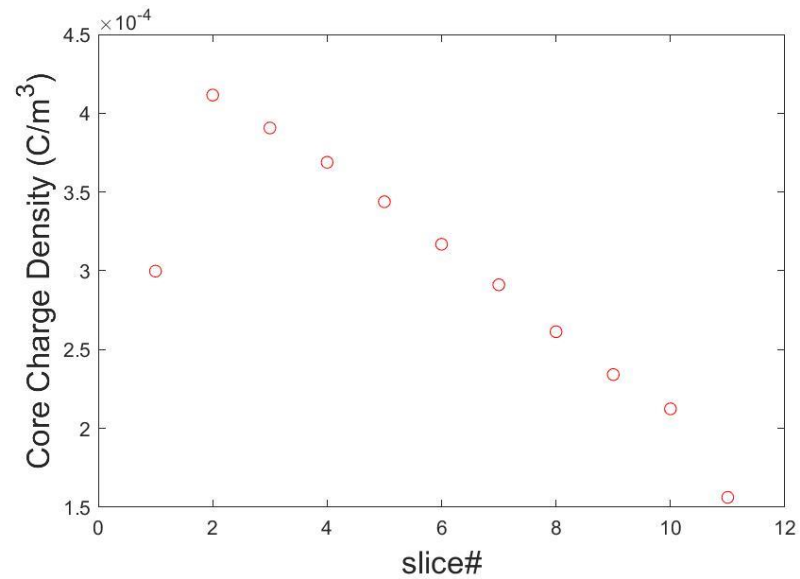
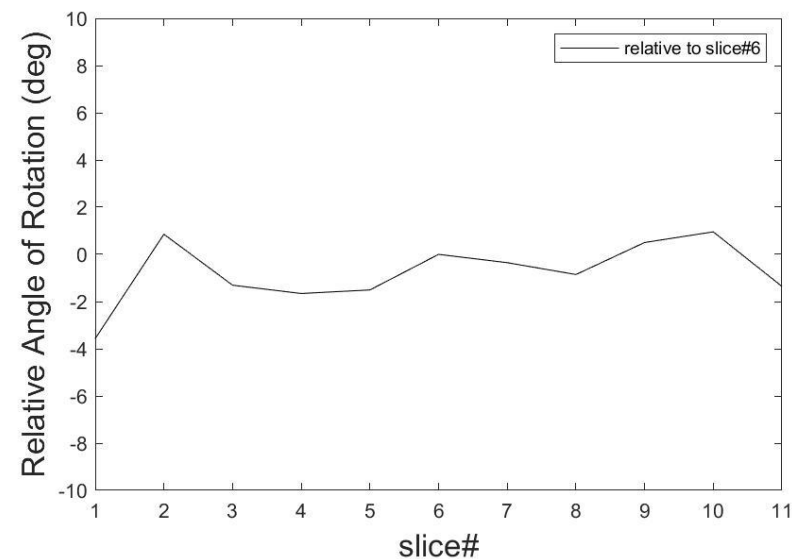
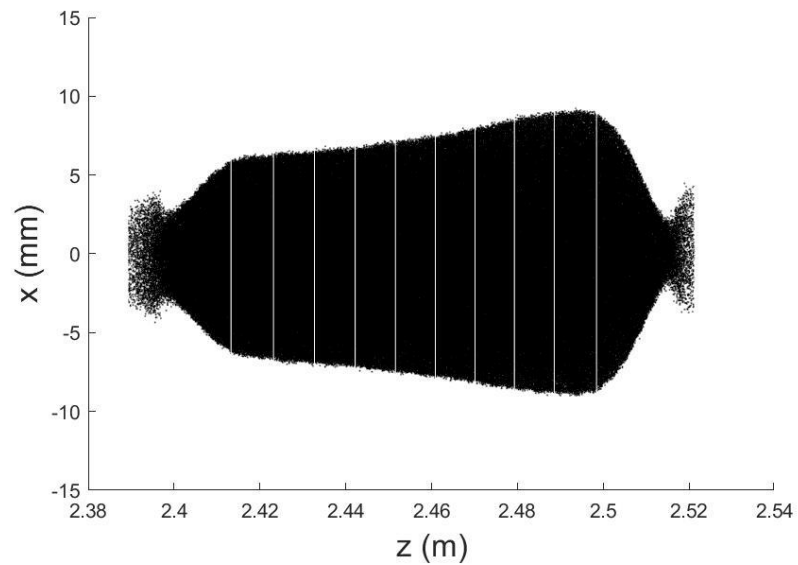
Slice#11



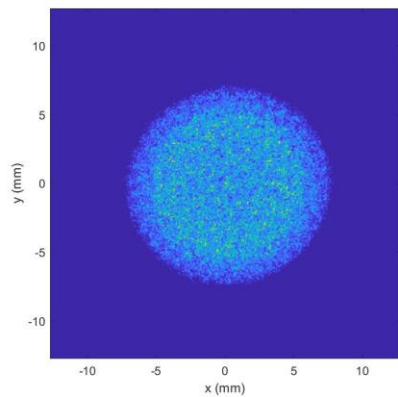
1.46 m



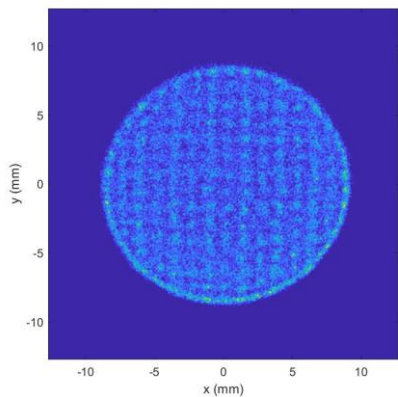
2.45 m



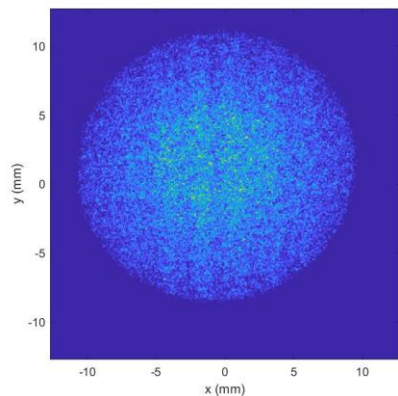
Slice#1



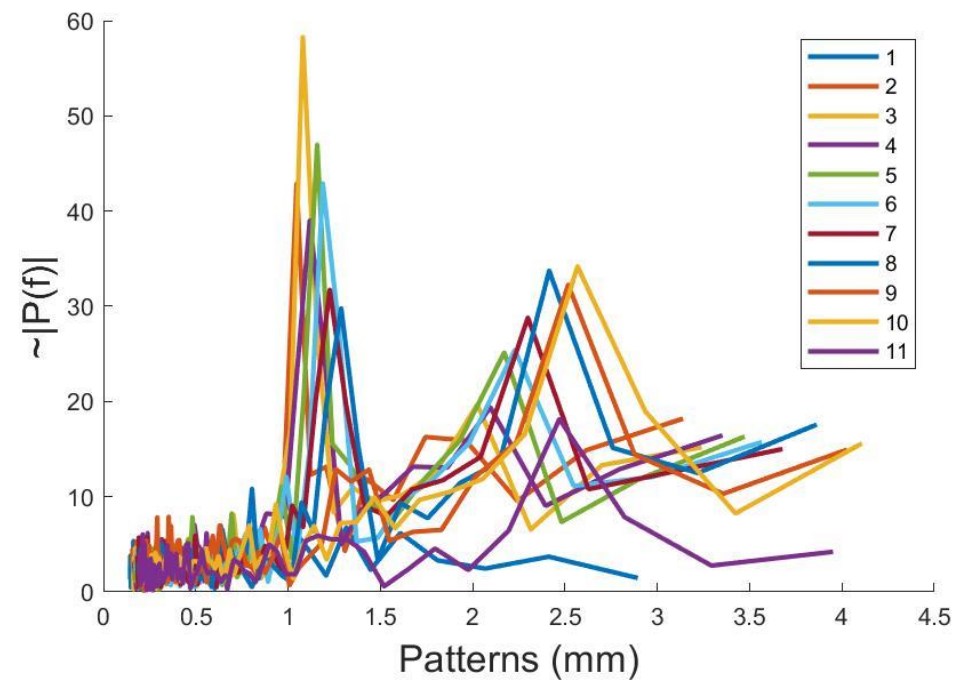
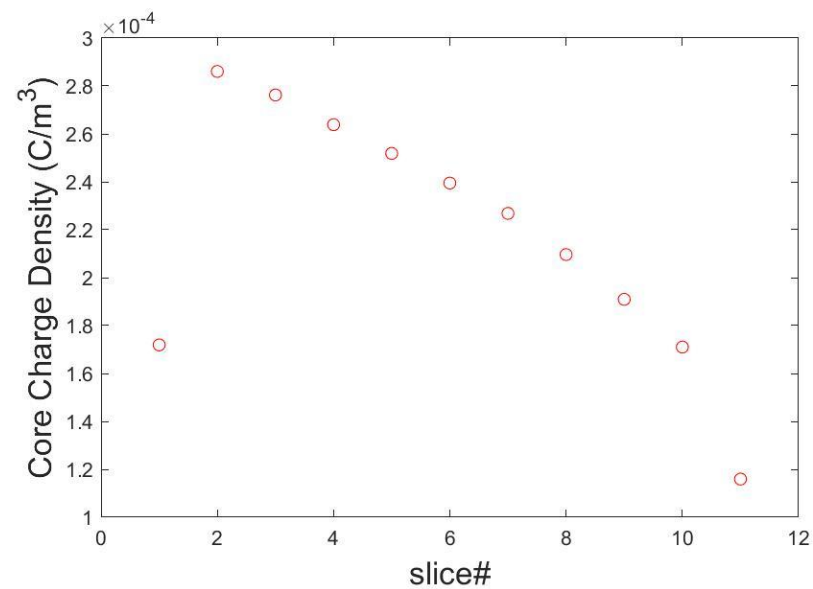
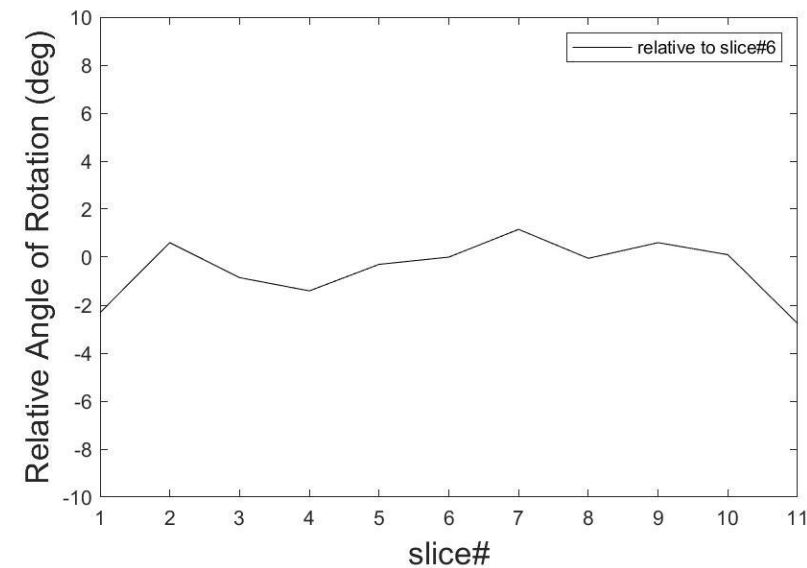
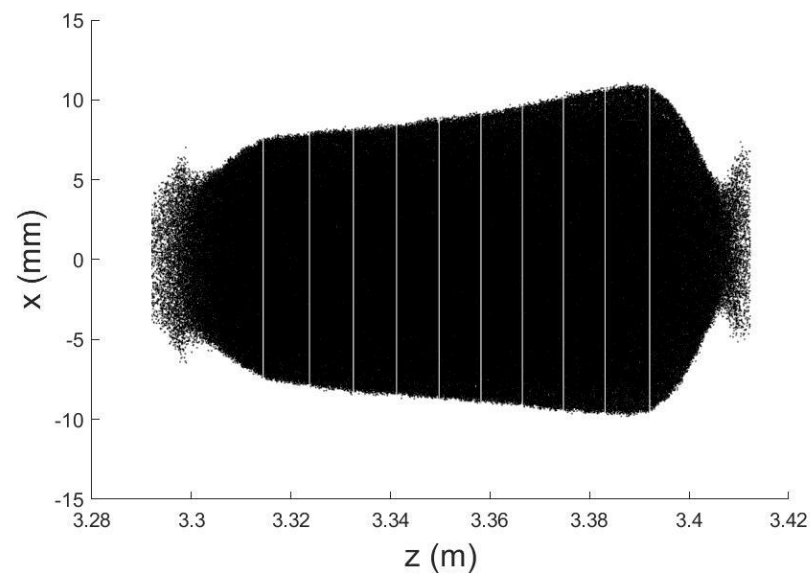
Slice#6



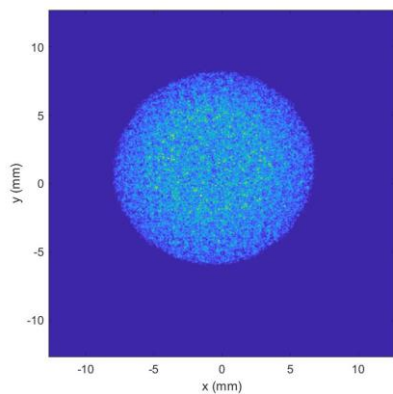
Slice#11



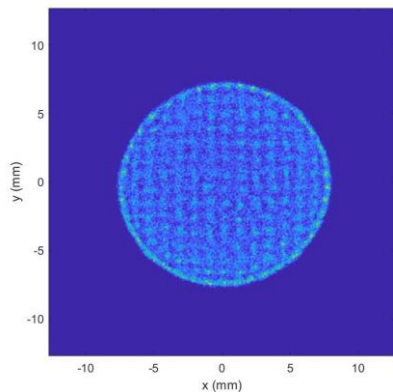
3.45 m



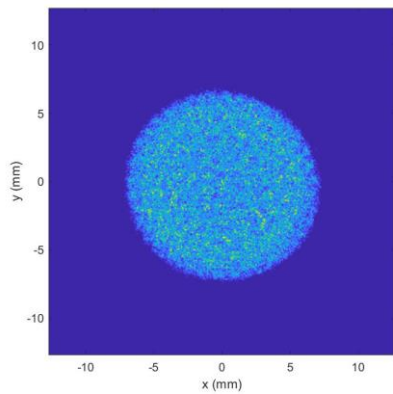
Slice#1



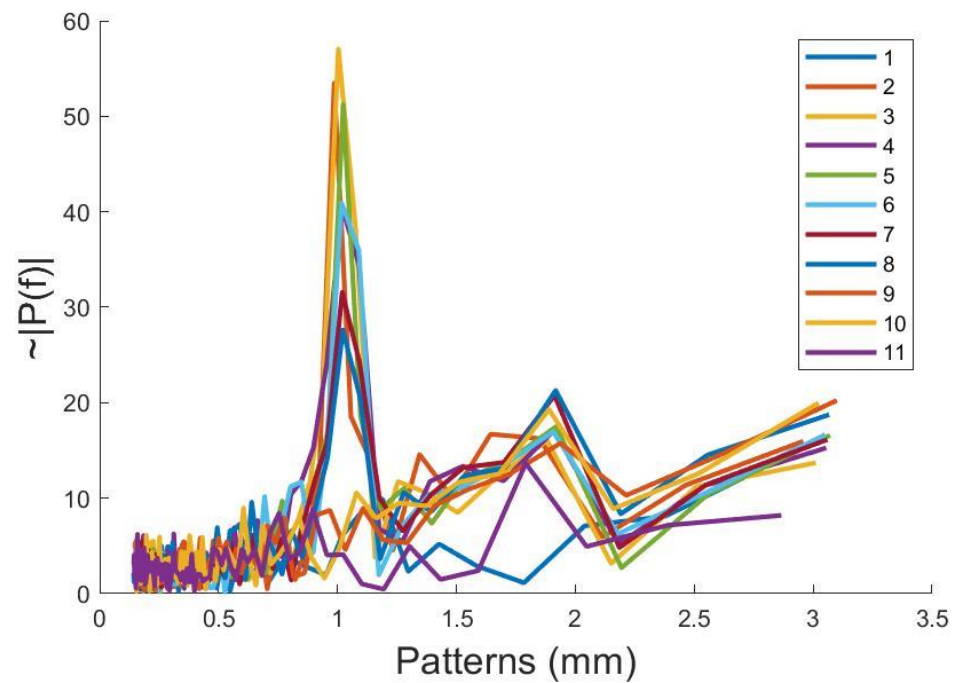
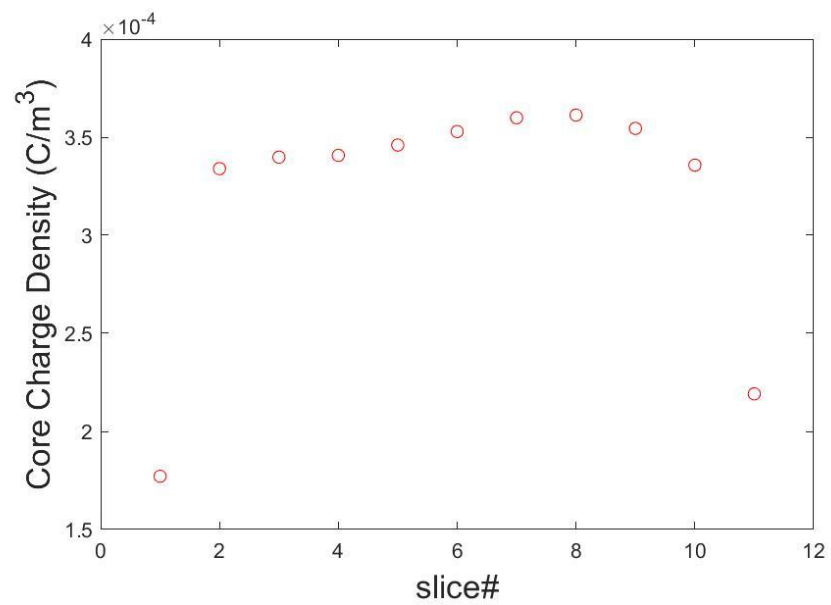
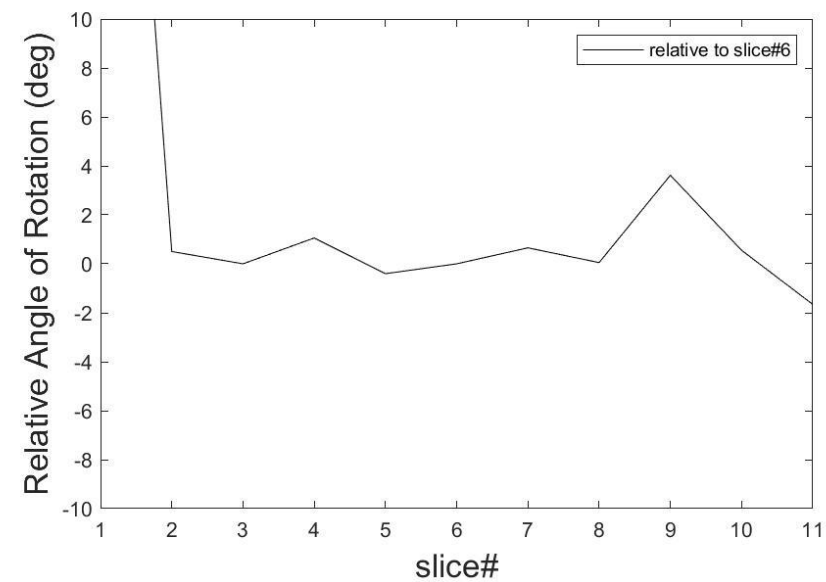
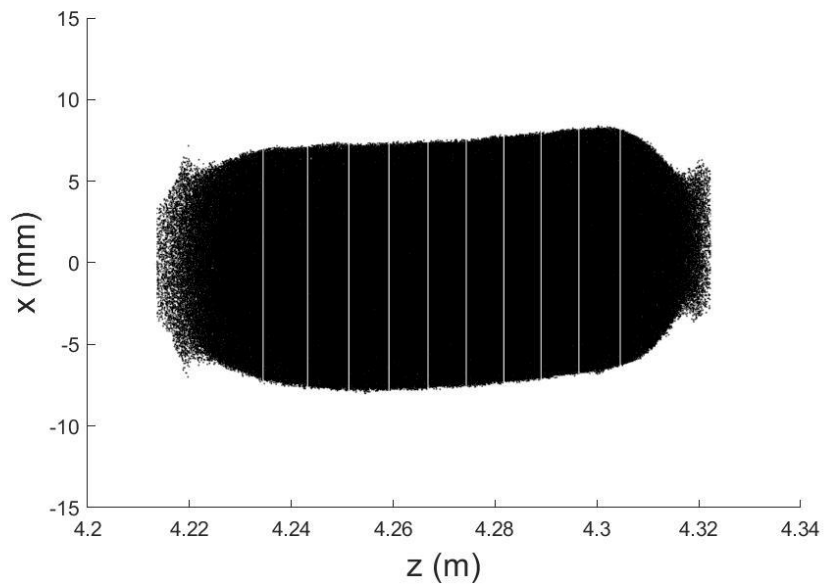
Slice#6



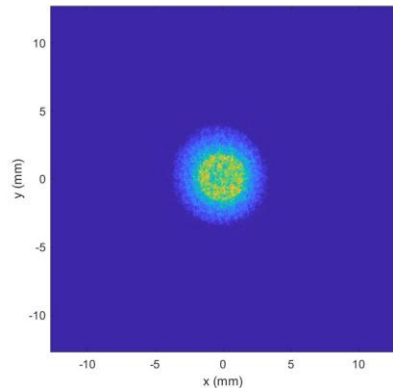
Slice#11



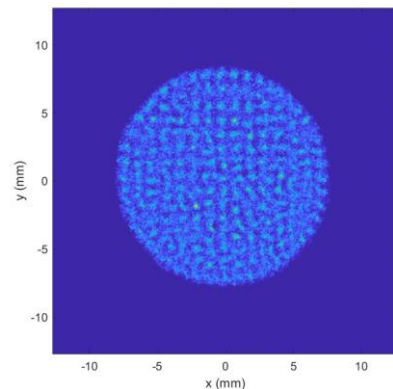
4.27m YAG 1



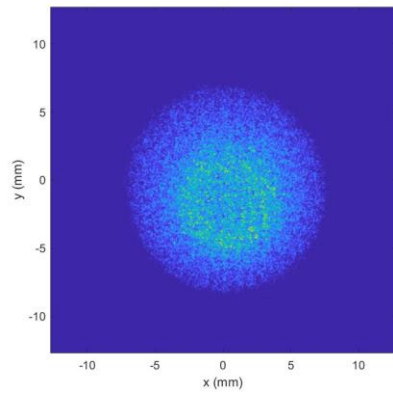
Slice#1



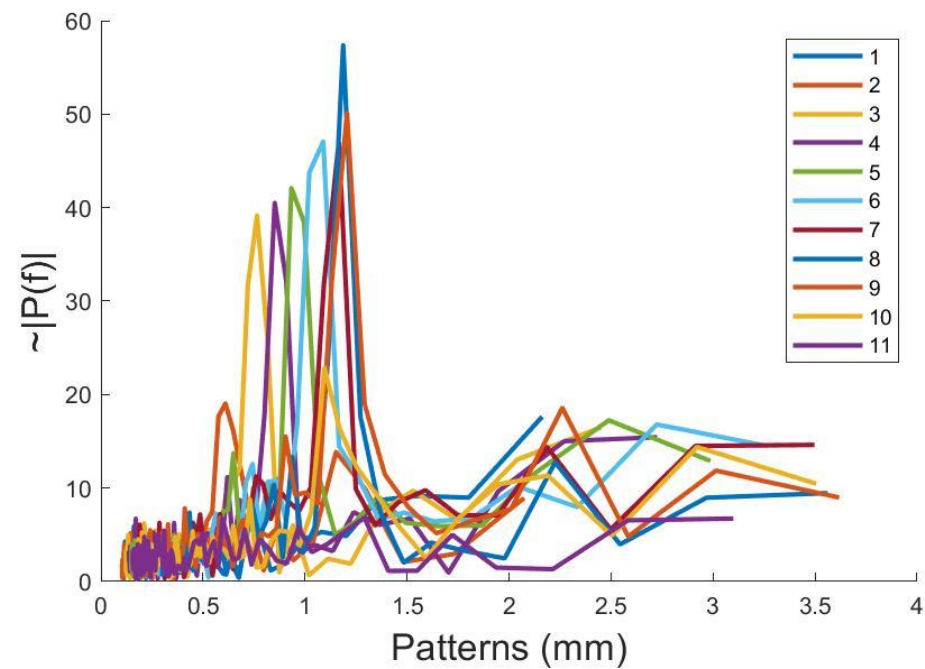
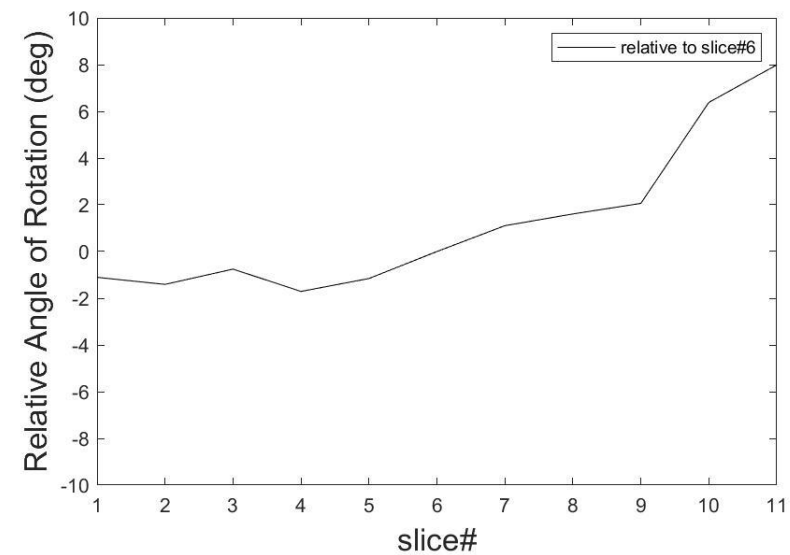
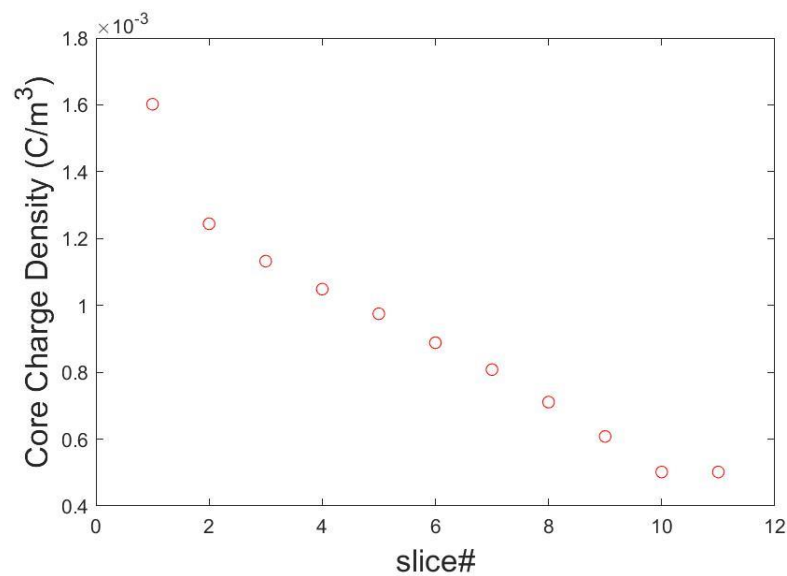
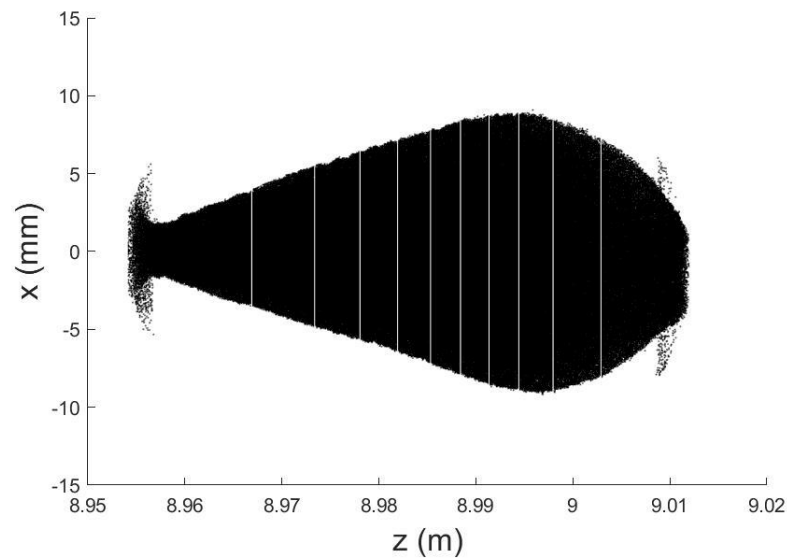
Slice#6



Slice#11

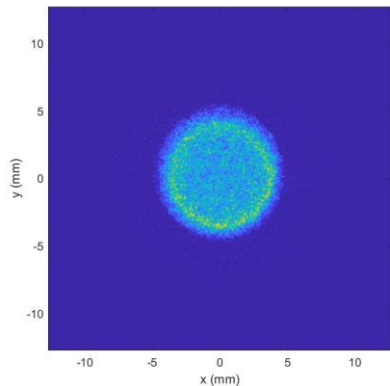


8.95 m YAG2

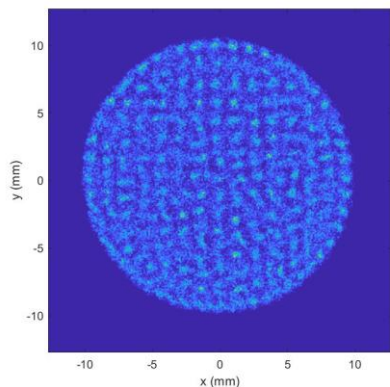


9.98 m end of LEBT4

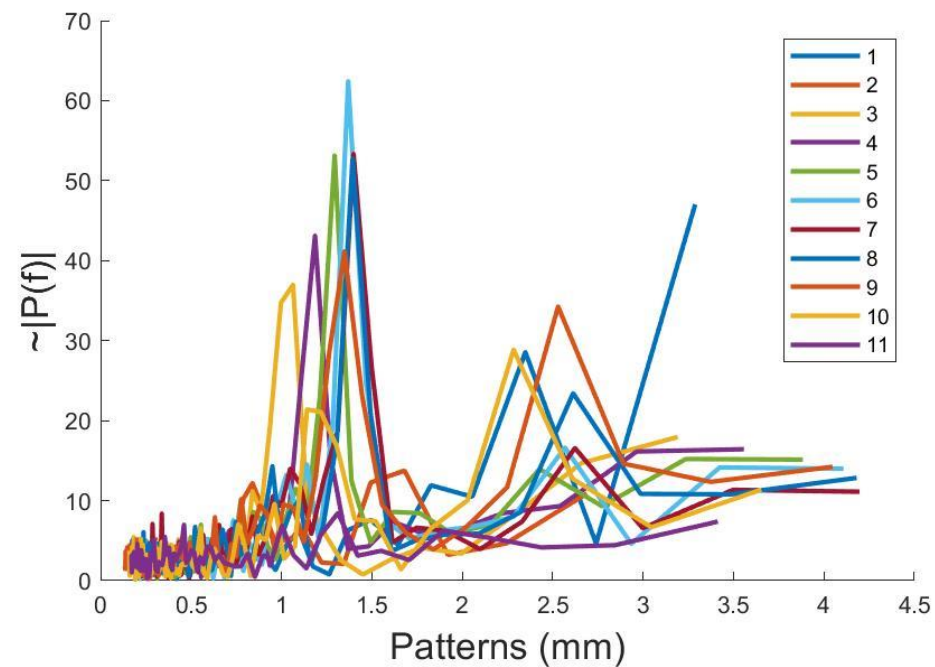
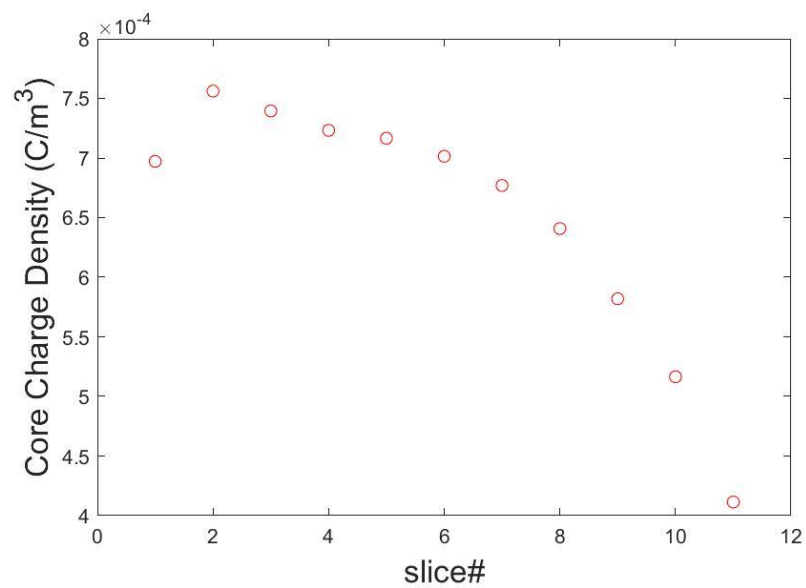
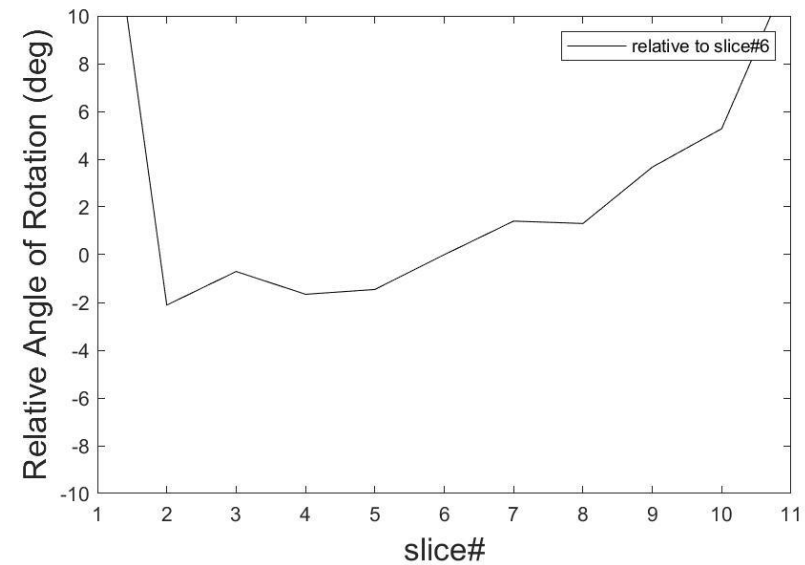
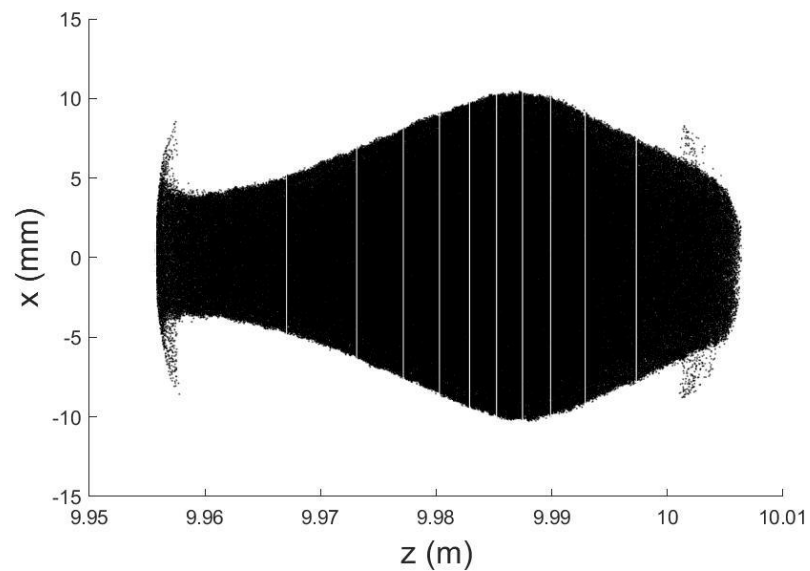
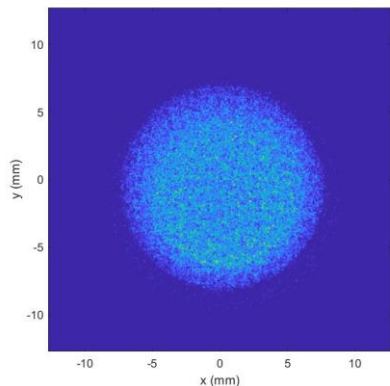
Slice#1



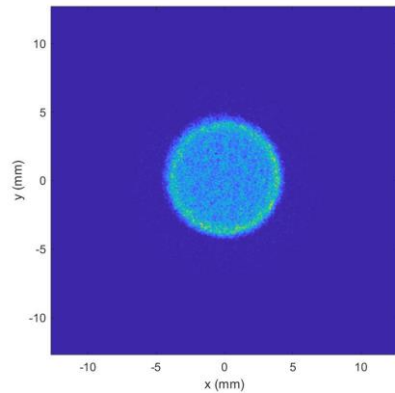
Slice#6



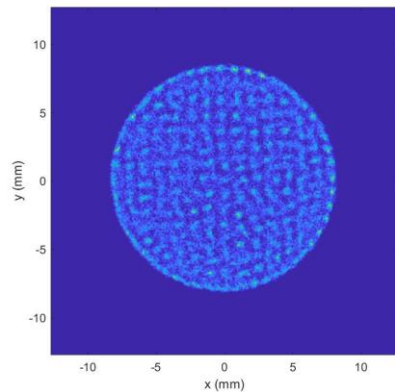
Slice#11



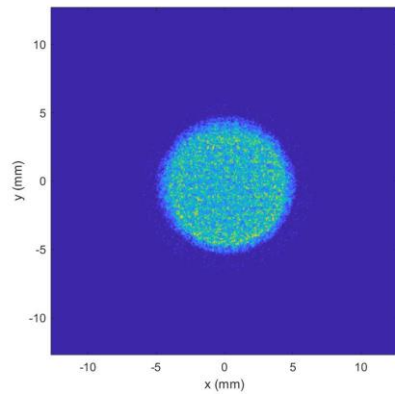
Slice#1



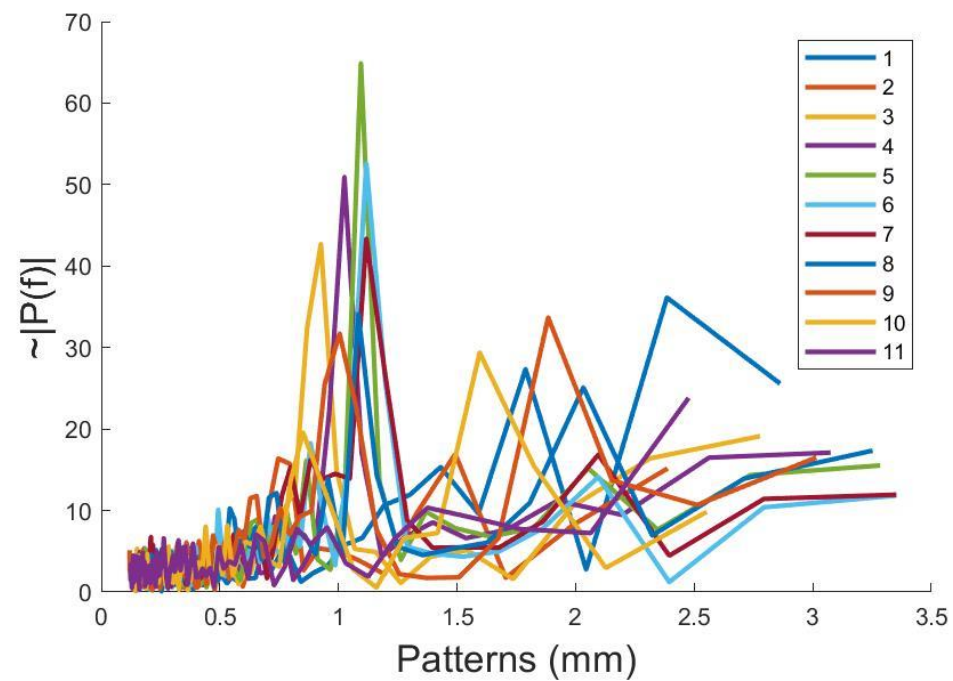
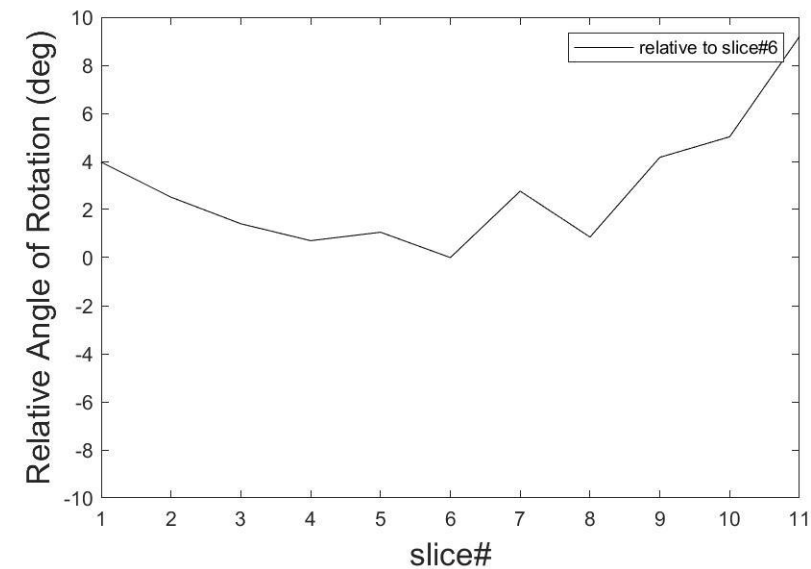
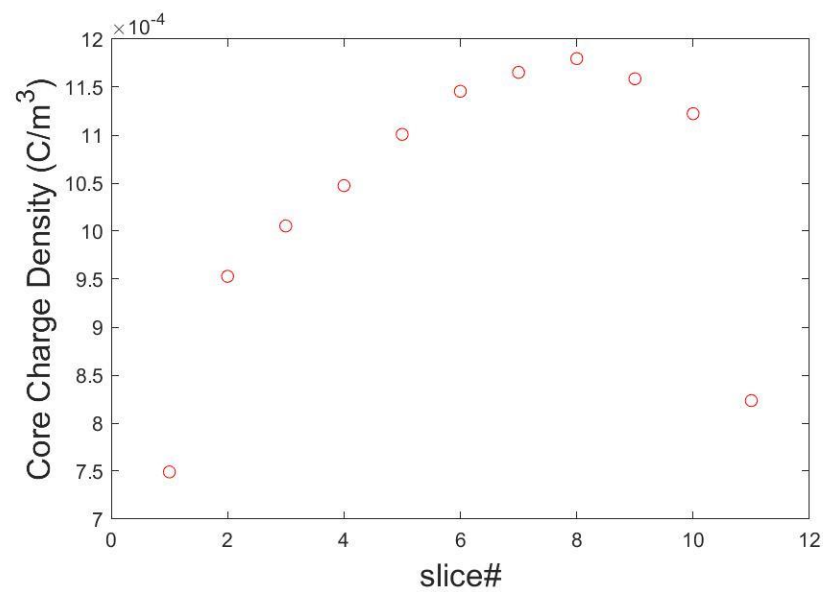
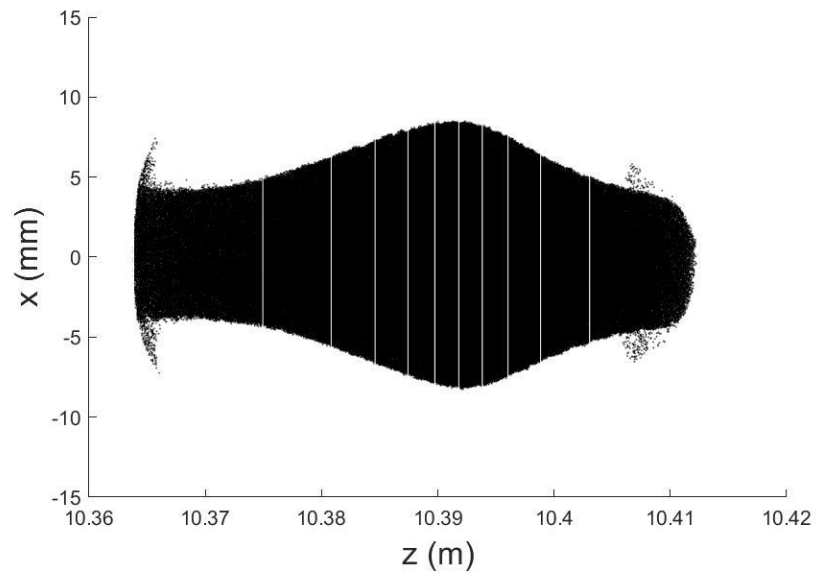
Slice#6



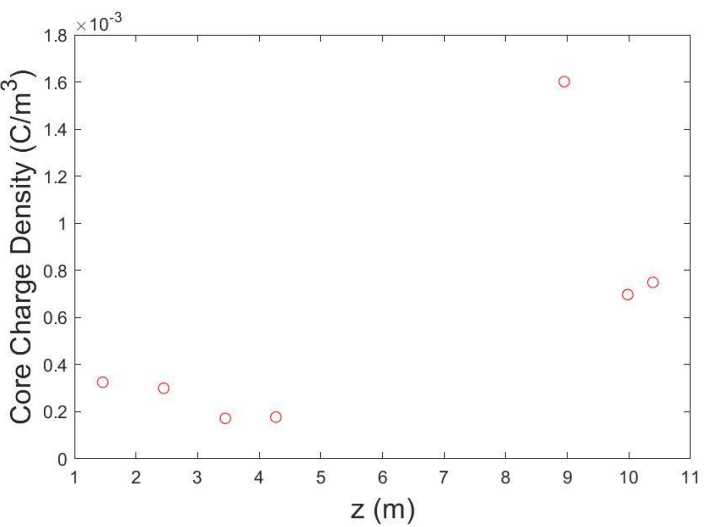
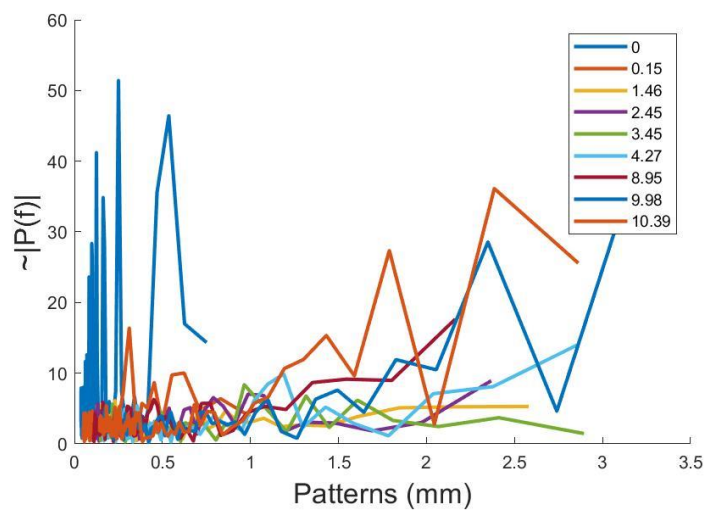
Slice#11



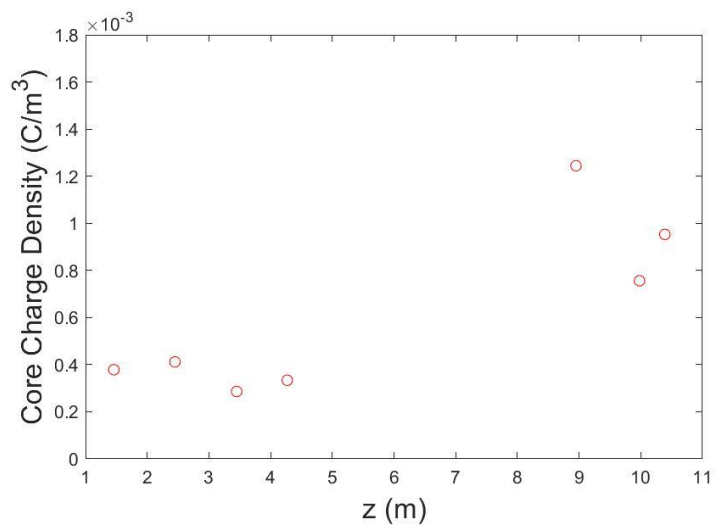
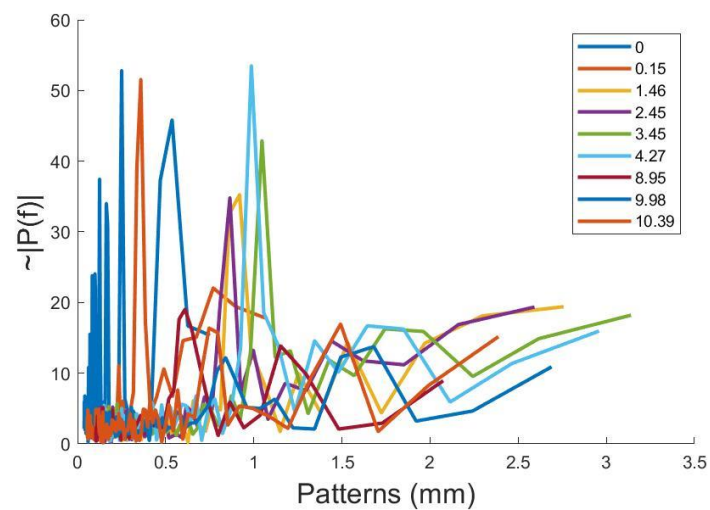
10.39 m end of LEBT5



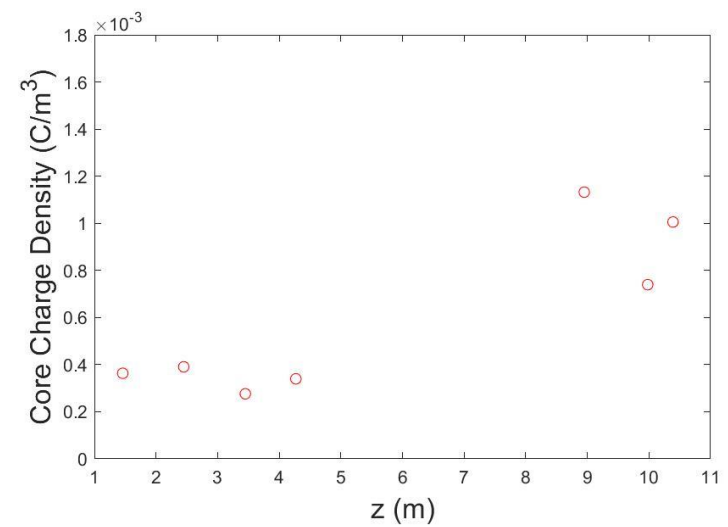
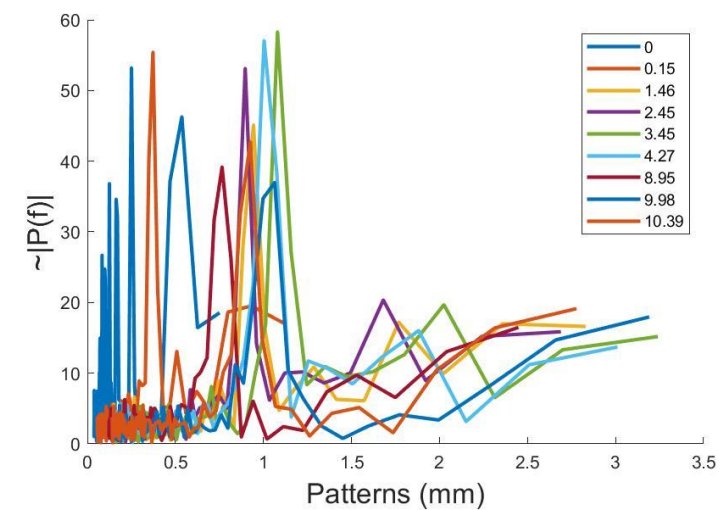
Slice#1



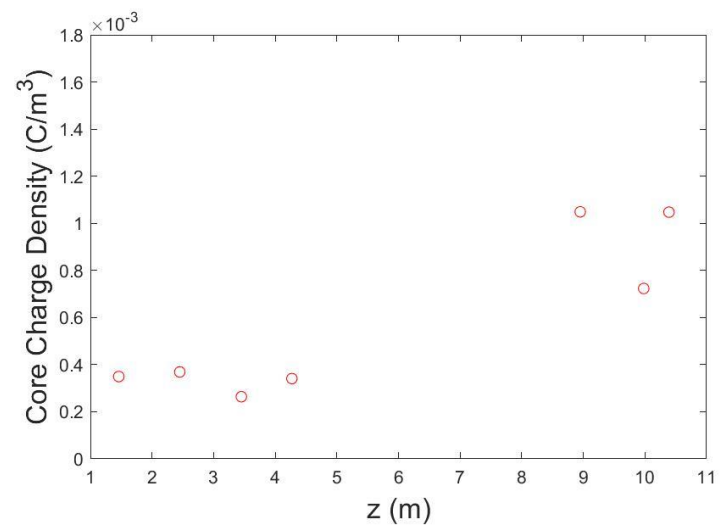
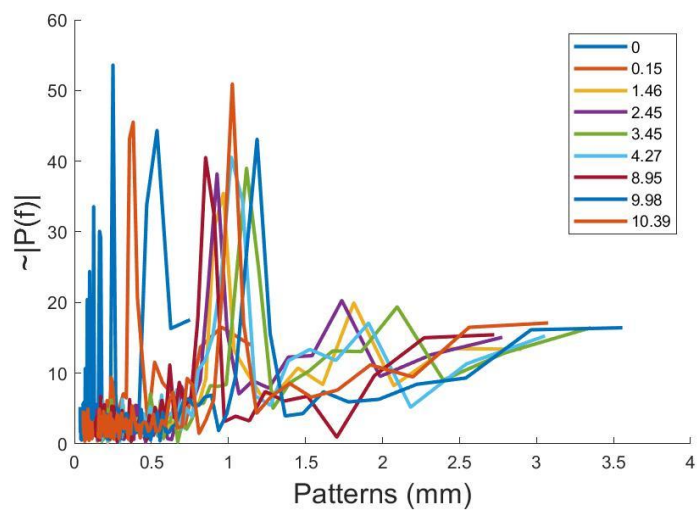
Slice#2



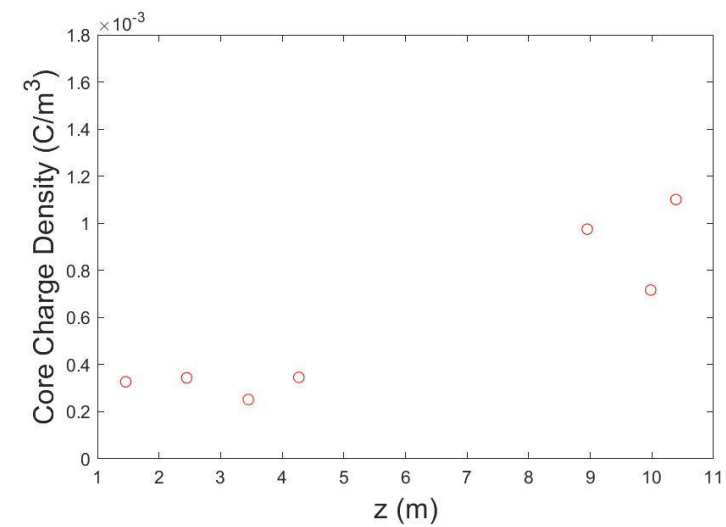
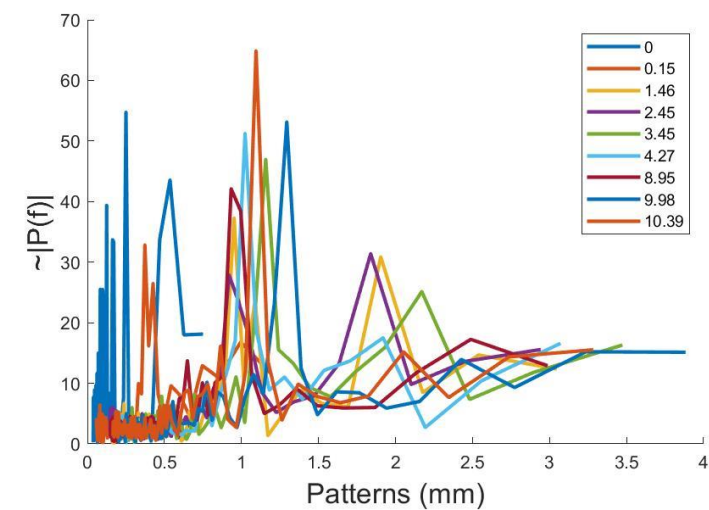
Slice#3



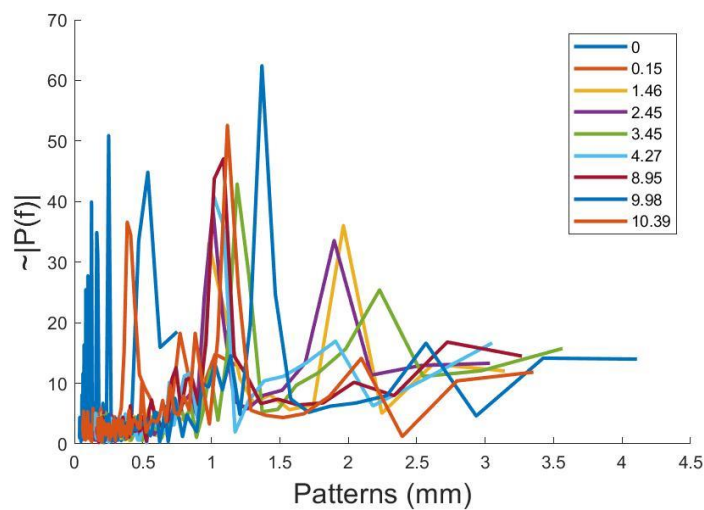
Slice#4



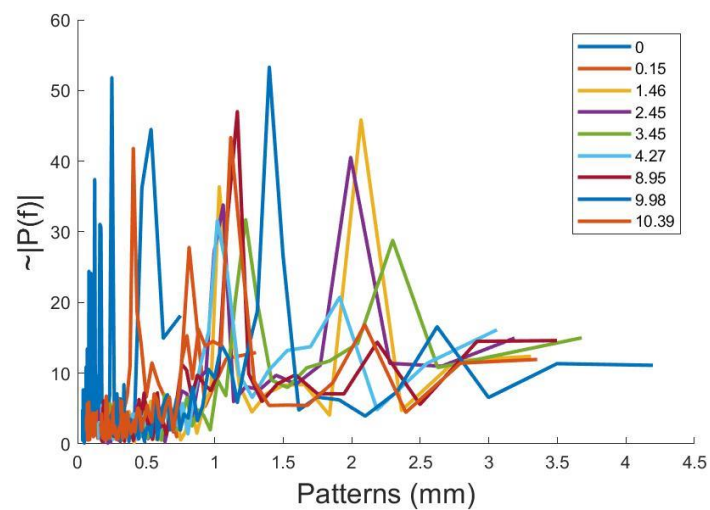
Slice#5



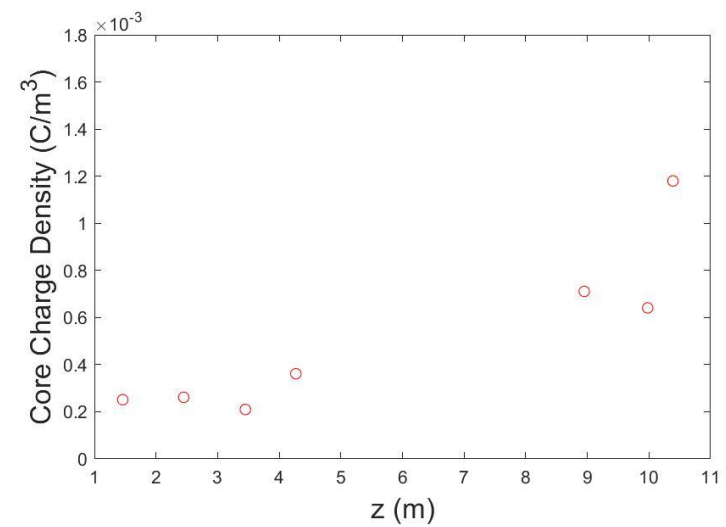
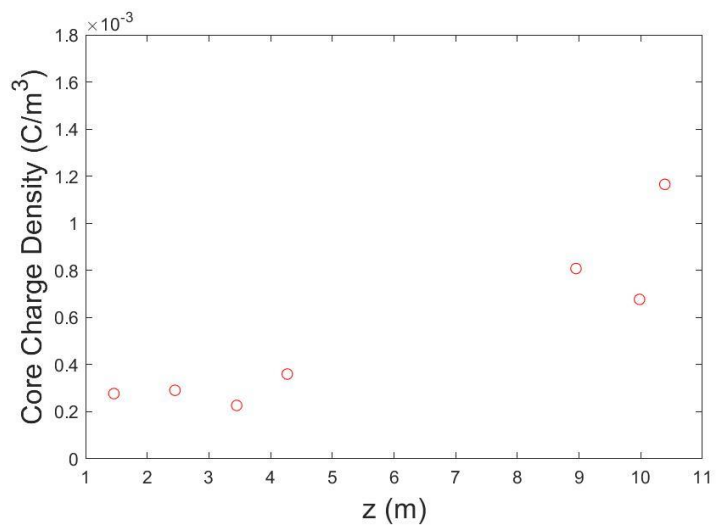
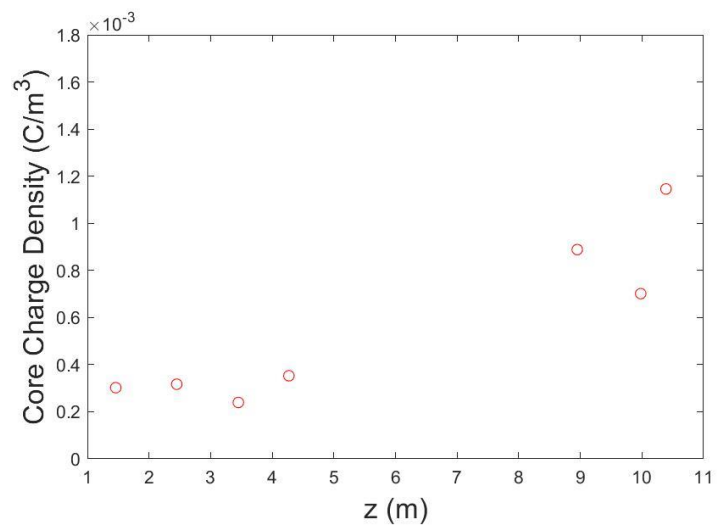
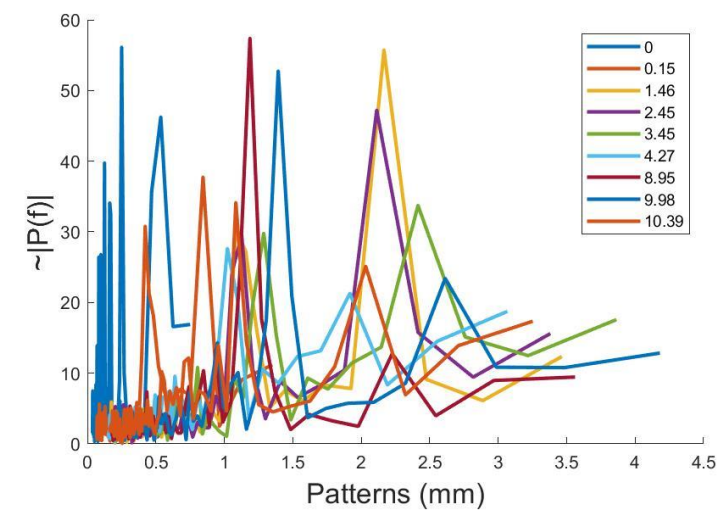
Slice#6



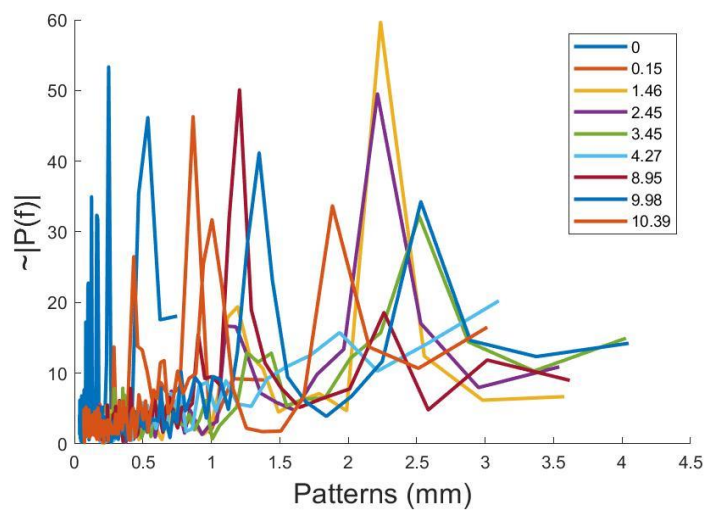
Slice#7



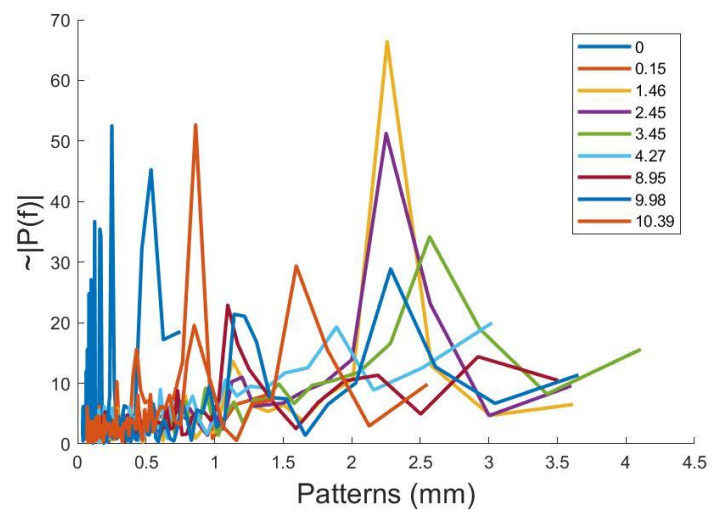
Slice#8



Slice#9



Slice#10



Slice#11

