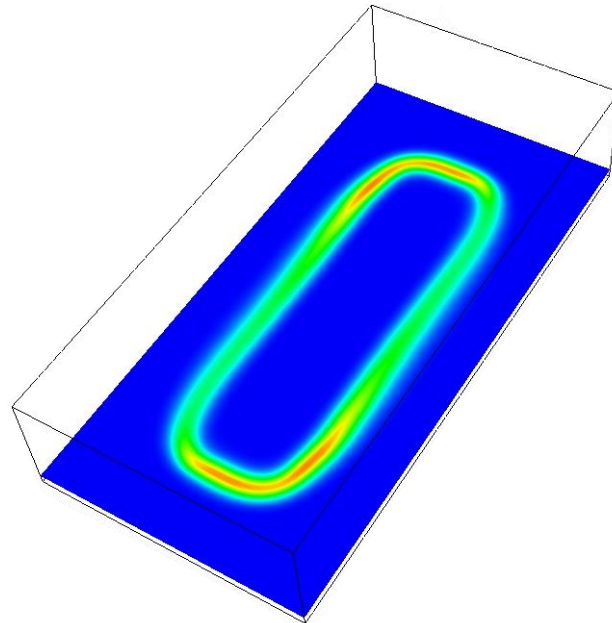


— TECHNICAL COLUMN —

Cross-Corner Effect



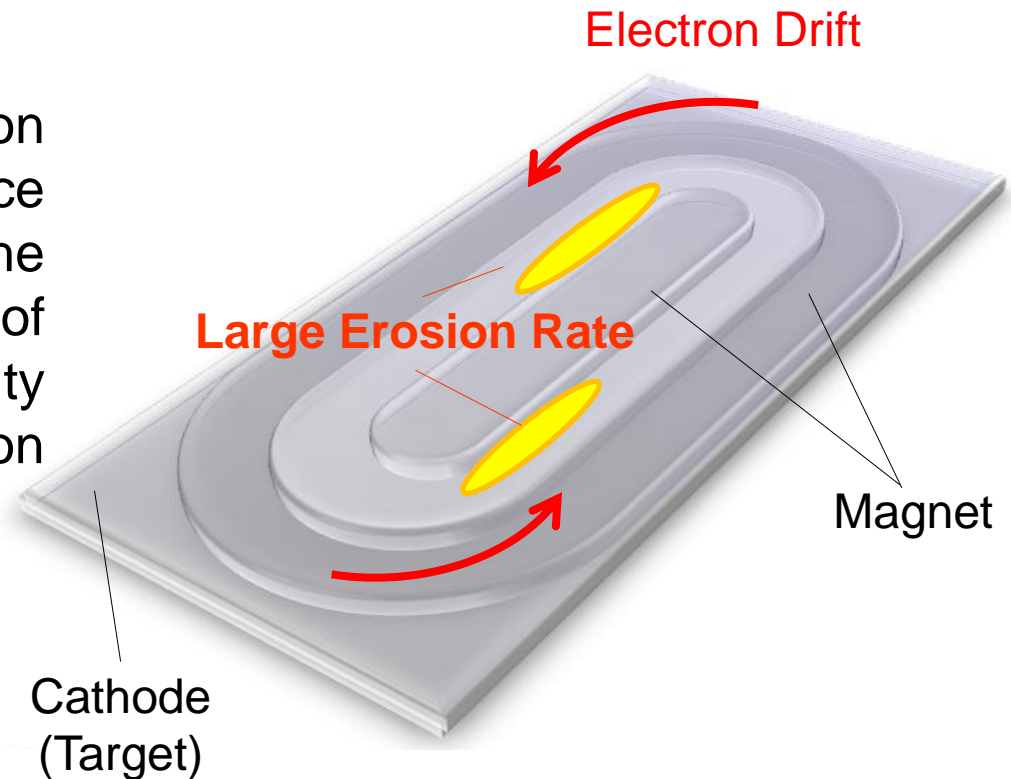
Cross-Corner Effect

In magnetron sputtering with rectangular magnetron cathode, the corner area is sputtered faster than straightway.

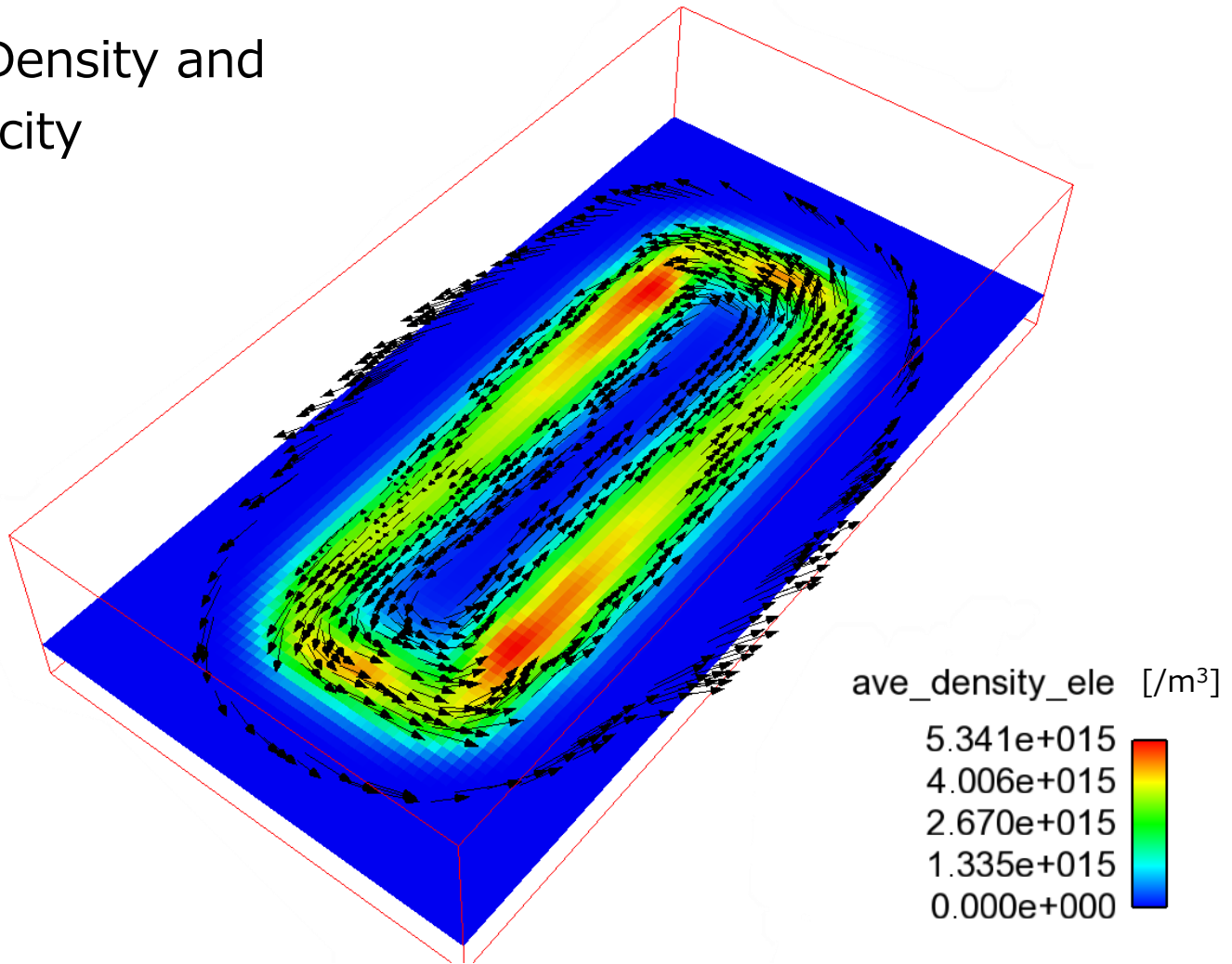
[CAUSE]

$E \times B$ drift velocity of electron is reduced due to a difference of magnetic fields in the straightway and in the end of region. As a result the density distribution and the erosion rate become nonuniform.

[E. Shidoji et.al. (2000), Q. H. Fan (2003)]



Electron Density and Flow Velocity



Simulation Result

Ion Flux on target

Wider Erosion Width
at large density region

