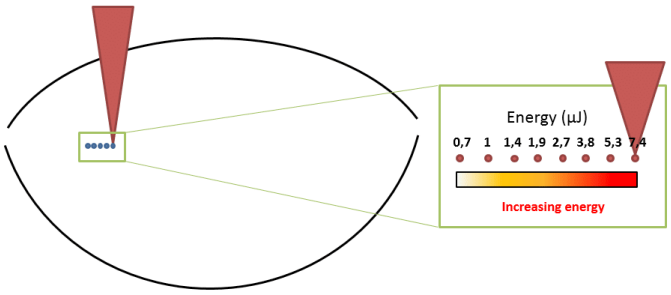
Revolution – Energy Management

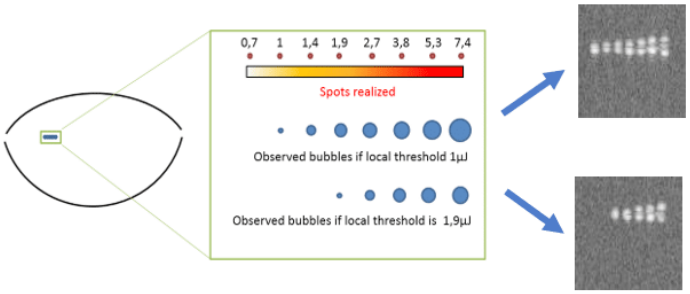
Keranova has developed an OCT guided process to detect the tissue photo-disruption thresholds throughout the lens called the Threshold Scanning System (TSS).

TSS is a 3-steps process that takes only few seconds during the treatment planning phase of the FEMTOMATRIX cataract procedure (Fig below).

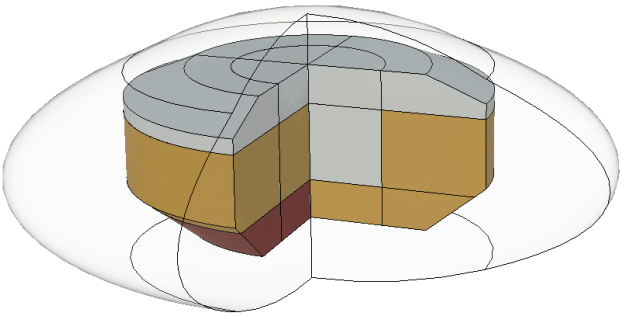
Step 1: Delivery of 8 laser spots with increasing energy in a defined lens area



Step 2: Automatic detection of generated bubbles on OCT images



Step 3: Replication of these 2 steps in 24 locations of the lens



This 3D threshold map will lead to the efficient **Photoemulsification®** of the lens by customizing the energy and treatment patterns for each patient.

Using TSS, the FEMTOMATRIX laser system can apply the exact amount of energy and number of laser spots for the most efficient Photoemulsification® procedure across the range of cataract grades, avoiding creation of too much gas inside the capsular bag while insuring complete laser dissection of the tissue throughout the lens volume.

KERANOVA
Photonic Surgery