

Fig 1. Cross-section SEM images of two representative regrowth samples Re3 (left) and P16 (right). The lattice constant for each sample is 576nm with a nominal etch depth of 250nm and the radius after lithography and etching was  $\sim 0.2$  and  $\sim 0.35$  times the lattice constant, respectively.

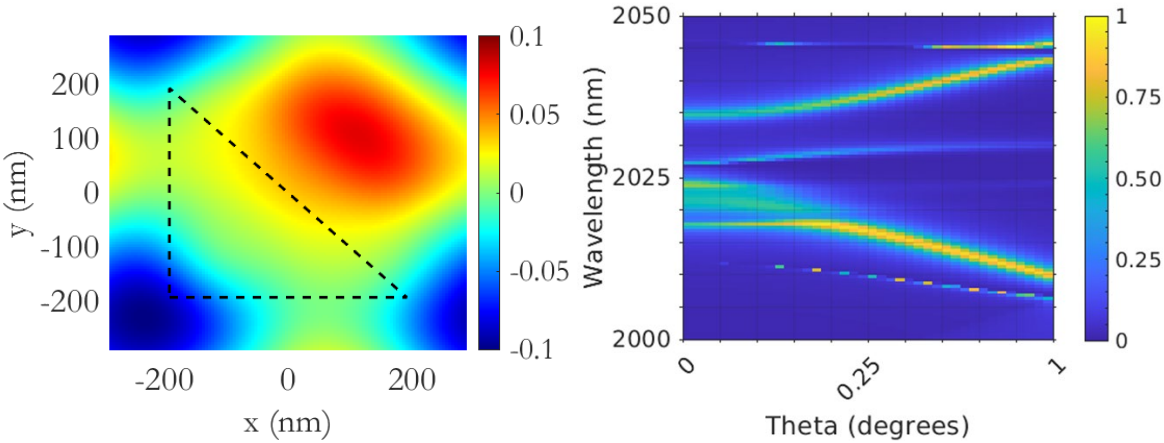


Fig 2. The simulated electric field profiles of the as designed PCSEL (left) and the corresponding band diagram (right).