Supporting information to "Reduction of oxygen concentration in 300 mm diameter ntype Czochralski silicon crystal growth by optimized heating zone with dual side-

heaters" by Peidong Liu et al.

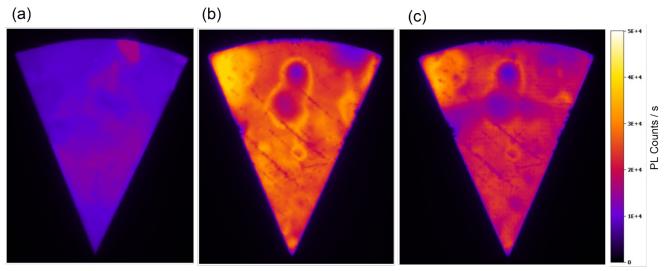


Fig. S1 PL images of the conventional grown 300 mm diameter *n*-type Cz-Si half-quarter wafer before and after subsequent annealing at 1000 °C in an oxygen atmosphere with varied durations (a) 0, (b) 90 and (c) 180 min, which are taken at H= 80 mm with the oxygen concentration of about 14.0 ppma.