

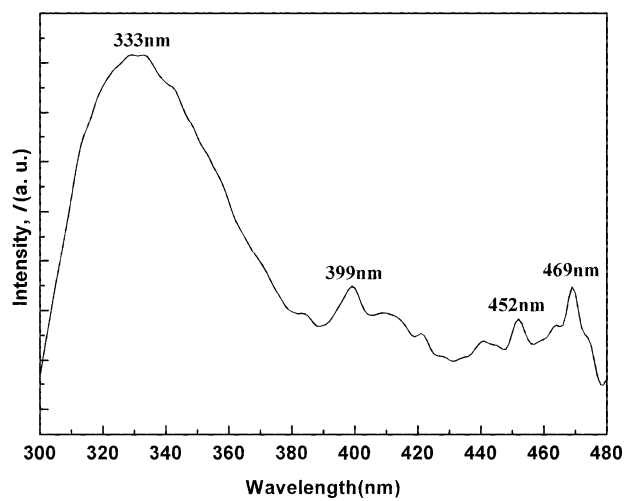
**Supplementary figures:**



**Fig. 1S** SEM image of mullite obtained in the absence of  $B_2O_3$ .



**Fig. 2S** SEM image of mullite obtained when the the molar ratio of  $B_2O_3/SiO_2$  was 0.05: 6.



**Fig. 3S** Photoluminescence spectrum of as-synthesized mullite nanowires.