

Power dependent photoacoustic and photoluminescence studies on $\text{Ho}^{3+}/\text{Yb}^{3+}$ doped Y_2O_3 phosphor

Minarul I. Sarkar¹, and Kaushal Kumar^{1*}

¹Optical Materials & Bio-Imaging Research Laboratory, Department of Physics,
Indian Institute of Technology (Indian School of Mines) Dhanbad, Dhanbad-826004, India

*Corresponding author: kkumar@iitism.ac.in

Supplementary Material

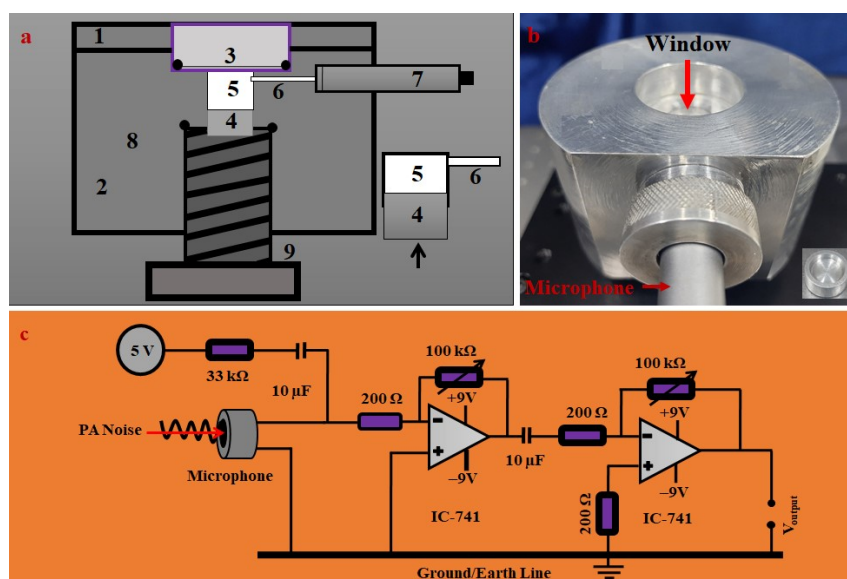


Fig. S1 (a) Schematic diagram of PA cell 1. Covering plate, 2. Main cell block, 3. Quartz window, 4. Sample holder, 5. Sample chamber, 6. Channel, 7. Microphone, 8. O-ring, 9. Back metal screw, (b) Home-made PA cell and sample holder, and (c) Pre-amplifier circuit.

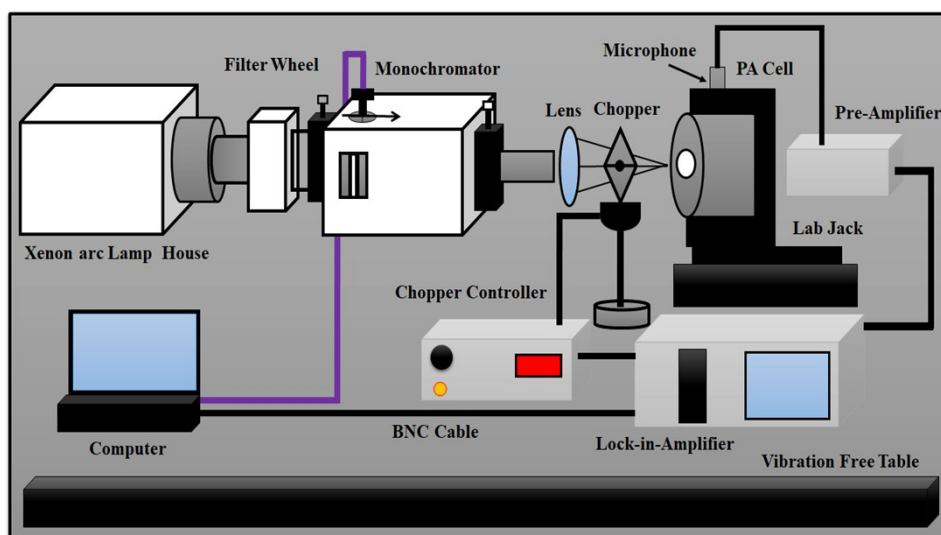


Fig. S2 Experimental setup for recording of wavelength dependent PA absorption spectra.

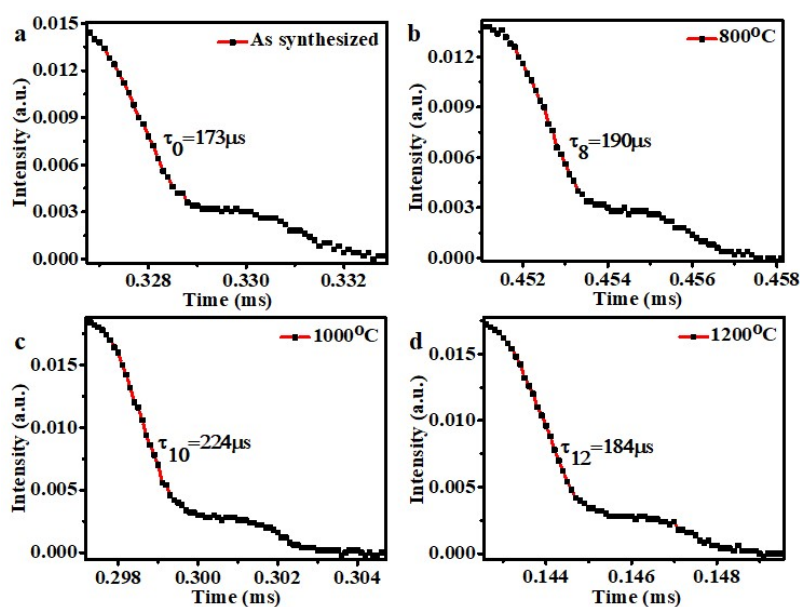


Fig. S3 luminescence decay curve of the sample for the bands ($^5S_2 \rightarrow ^5I_8$) at 551 nm (a) as synthesized, (b) annealed at 800 °C, (c) annealed at 1000 °C, and (d) annealed at 1200 °C.