

Supplementary information

Nd³⁺, Yb³⁺:YF₃ optical temperature nanosensors operating in the biological windows

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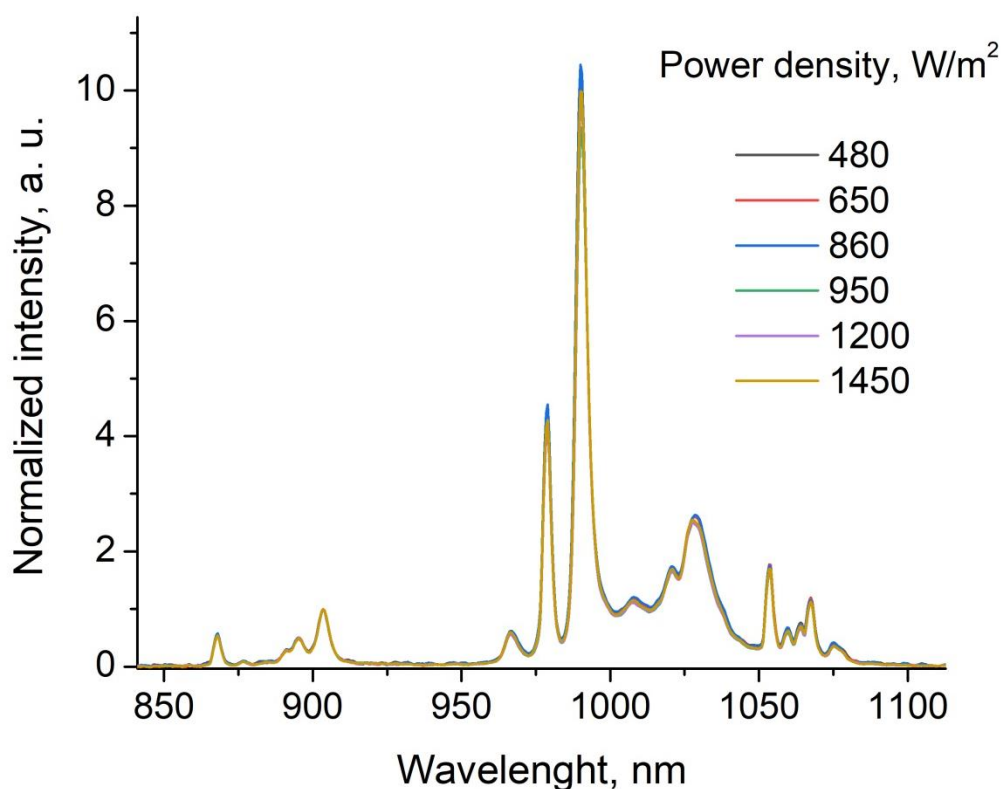


Figure S1. The luminescence spectra recorded at different values of power density of the laser irradiation. It can be seen, that the shape of the spectra are independent of the power density. It can be related to the lack of heating. We used the maximum power values around 300 mV that corresponds to ~ 1300 W/m². These values are comparable to our previous work “<https://doi.org/10.1016/j.optmat.2021.111328>”.

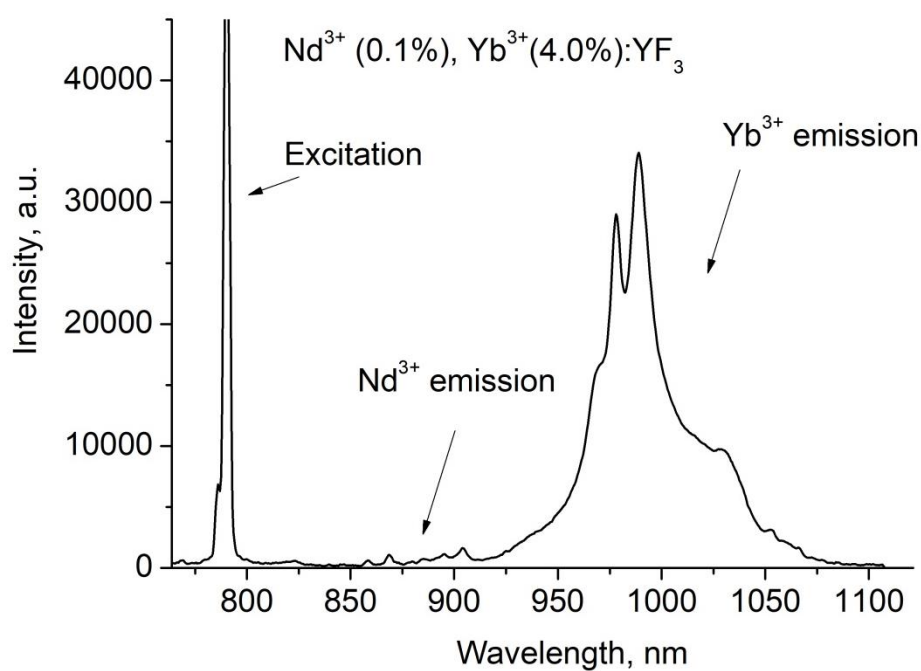


Figure S2. Room temperature luminescence spectrum of Nd^{3+} (0.1%), Yb^{3+} (3.0%): YF_3 . It can be seen, that the integrated intensity of Yb^{3+} much higher compared to Nd^{3+} one. This peculiarity leads to deterioration of the performances.