

SUPPLEMENTARY INFORMATION

Fine-tunable white light source using novel dual-excitation design and efficient Sn-doped condensed borate glass phosphor

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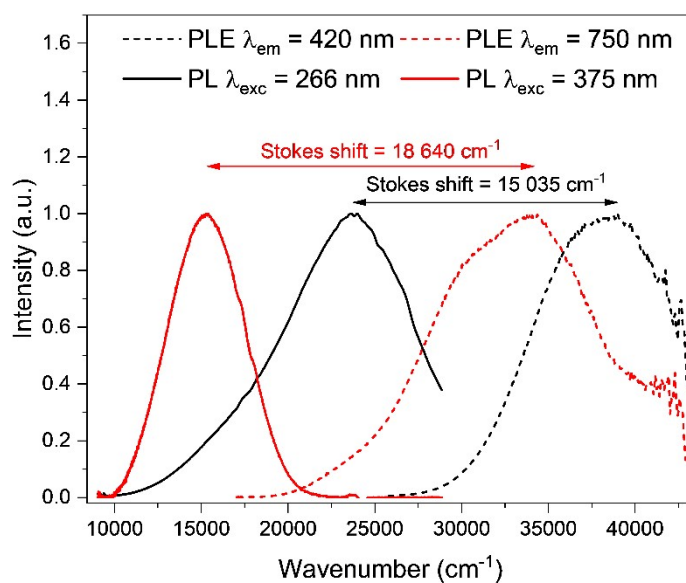


Fig. S1 PL and PLE of LaMBO:Sn with Stokes shift values.

The activation energies were derived from equation (S1)¹ and its linear reformulation (S2).

$$I = \frac{I_0}{1 + e^{-\Delta E/kT}} \quad (\text{S1})$$

$$\ln\left(\frac{I}{I_0}\right) = -\Delta E \cdot \frac{1}{kT} \quad (\text{S2})$$

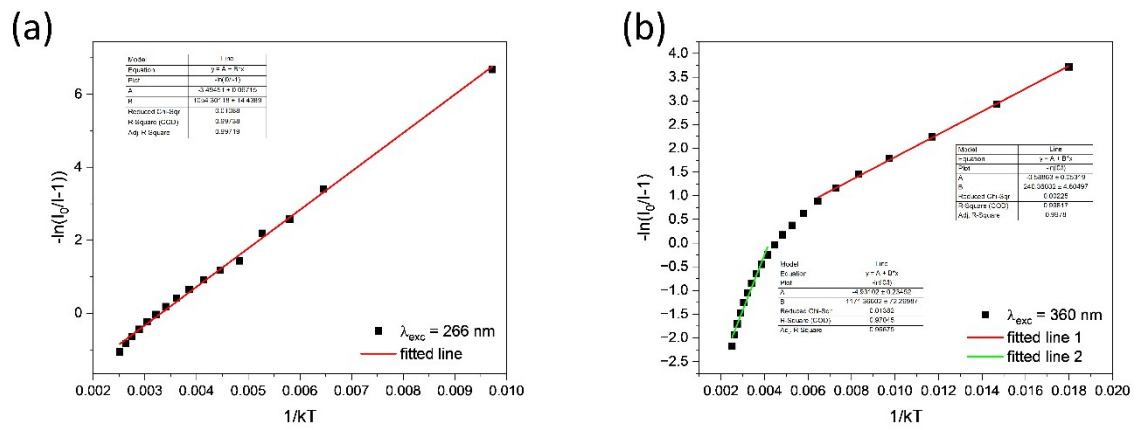


Fig. S2 Fitting of the Arrhenius equation to the thermal quenching curve of LaMBO:Sn blue (a) and red emission (b).

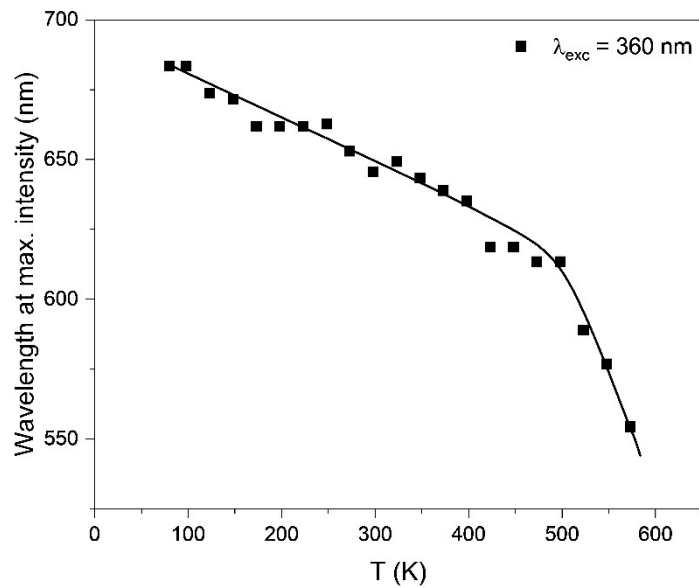


Fig. S3 Red band position in the emission spectrum in the function of temperature.

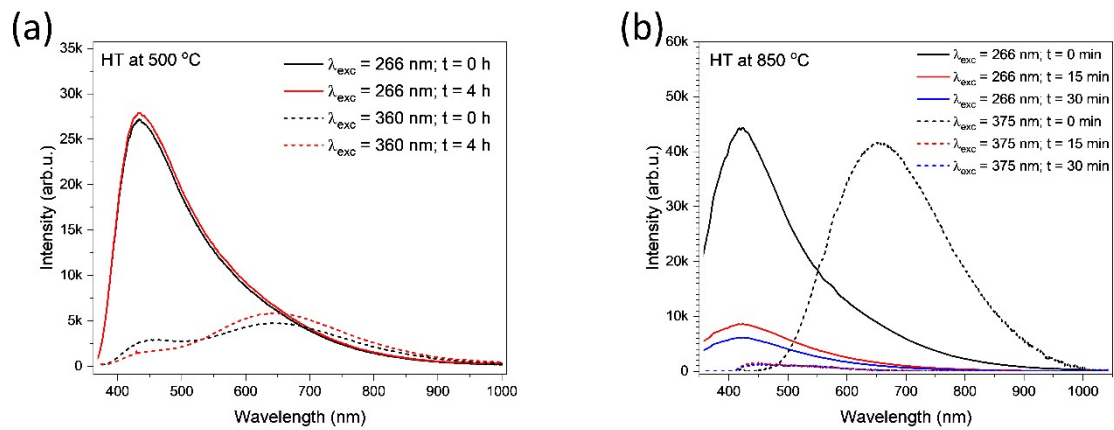
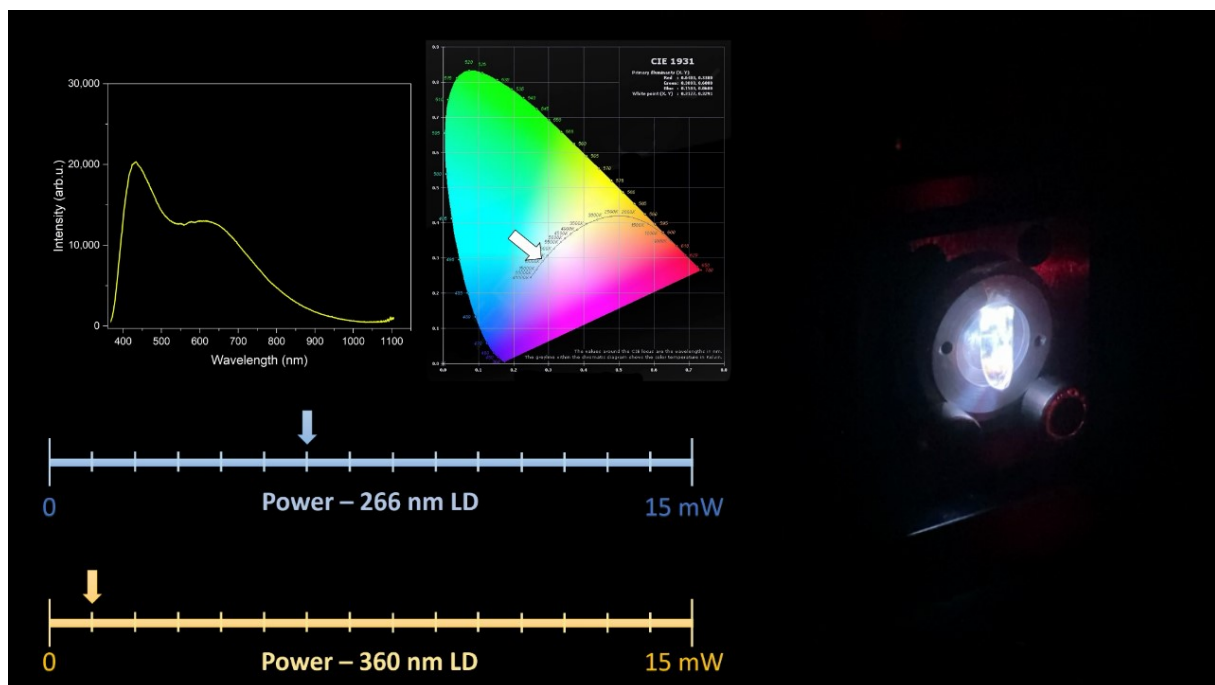


Fig. S4 Emission spectra of the samples heat treated at 500 °C (a) and 850 °C (b).



Vid. S1 Continuous tunability of the dual-excited emission.

References

- 1 P. Dorenbos, *Journal of Physics: Condensed Matter*, 2005, **17**, 8103–8111.