Supplementary Information

Novel optical temperature sensor based on emission in Pr$^{3+}$
doped ferroelectric Ba$_{0.7}$Sr$_{0.3}$TiO$_3$

Tang Wei,* Ni Haiyong, Zhang Qiuhong and Ding Jianhong

Guangdong Research Insitute of Rare-Metal, Guangdong Academy of Science,
Guangzhou 510650,China, Email:t4852065w@126.com.

* Correspondence should be addressed to t4852065w@126.com
Fig. S1 shows the intrinsic BST almost have no PL properties relative to BST:Pr$^{3+}$. It can be inferred that the PL of BST:Pr$^{3+}$ is derived from Pr$^{3+}$. 