

Electronic Supplementary Information

Luminescence properties and site occupancy of Ce³⁺ in Ba₂SiO₄: a combined experimental and ab initio study

Litian Lin,^a Xiaoxiao Huang,^b Rui Shi,^a Weijie Zhou,^a Yan Huang,^c Jiuping Zhong,^a
Ye Tao,^c Jun Chen,^d Lixin Ning^{*,b} and Hongbin Liang^{*,a}

^a MOE Key Laboratory of Bioinorganic and Synthetic Chemistry, KLGHEI of Environment and Energy Chemistry, School of Chemistry, Sun Yat-sen University, Guangzhou 510275, China

^b Anhui Province Key Laboratory of Optoelectric Materials Science and Technology, Department of Physics, Anhui Normal University, Wuhu, Anhui 241000, China

^c Beijing Synchrotron Radiation Facility, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100039, China

^d School of Electronics and Information Technology, Sun Yat-sen University, Guangzhou 510275, China

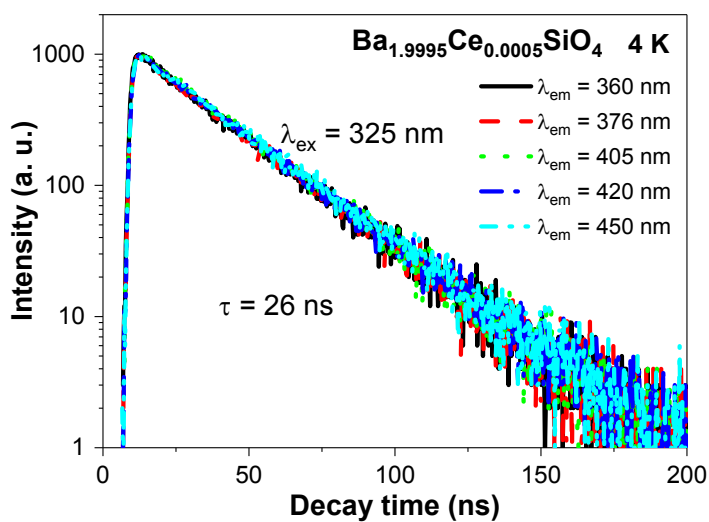
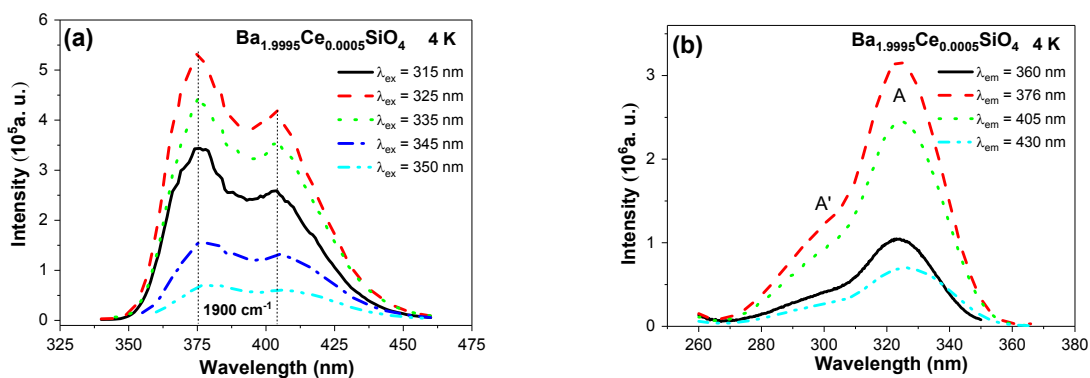


Fig. S2 Luminescence decay curves ($\lambda_{\text{ex}} = 325$ nm; $\lambda_{\text{em}} = 360, 376, 405, 420,$ and 450 nm) of $\text{Ba}_{1.9995}\text{Ce}_{0.0005}\text{SiO}_4$ at 4 K.