

Perovskite nanocrystals doped all-inorganic glass for X-ray scintillator

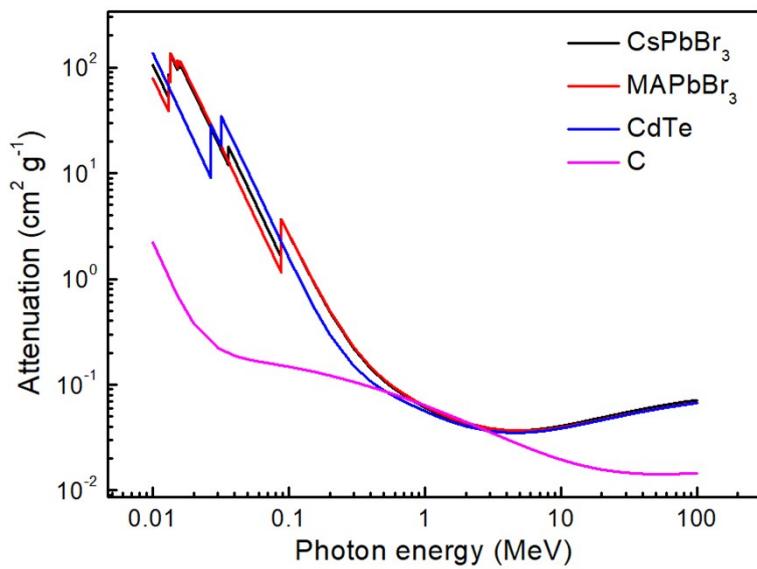
Yinsheng Xu,<sup>a</sup> Xudong Zhao,<sup>a</sup> Mengling Xia<sup>\*b</sup> and Xianghua Zhang<sup>a,c</sup>

<sup>a</sup>State Key Laboratory of Silicate Materials for Architectures, Wuhan University of  
Technology, Wuhan, Hubei 430074, China

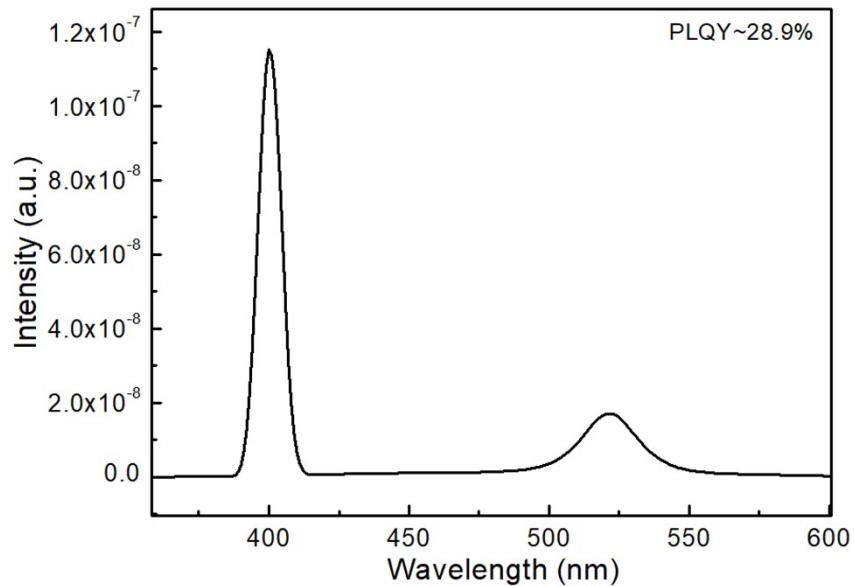
<sup>b</sup>Wuhan National Laboratory for Optoelectronics (WNLO), Huazhong University of  
Science and Technology (HUST), Wuhan, Hubei 430074, China

<sup>c</sup>Laboratoire des Verres et Céramiques, UMR-CNRS 6226, Sciences chimiques de  
Rennes, Université de Rennes 1, Rennes, 35042, France

E-mail: xiamengling@hust.edu.cn



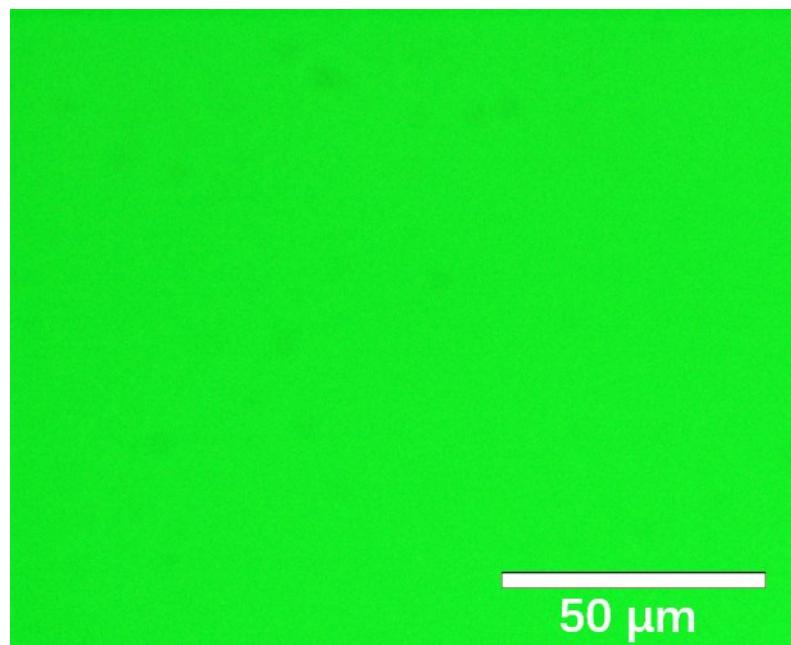
**Fig. S1** Attenuation coefficient for some perovskites and traditional semiconductors towards high-energy photons.



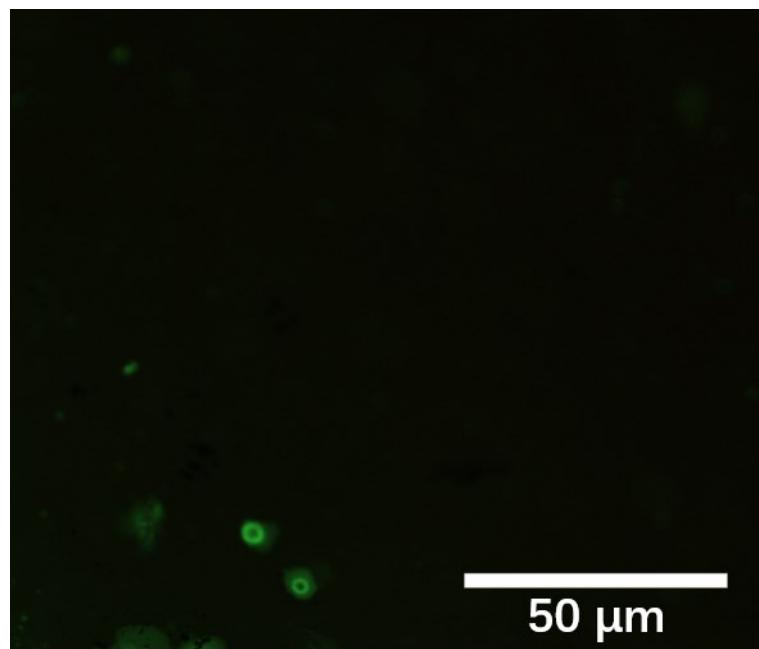
**Fig. S2** PLQY result of PNC glass-ceramic heat-treated at 470 °C for 10 h.

**Table S1** Fitting data of the photoluminescence decay curves of PNC glass-ceramic

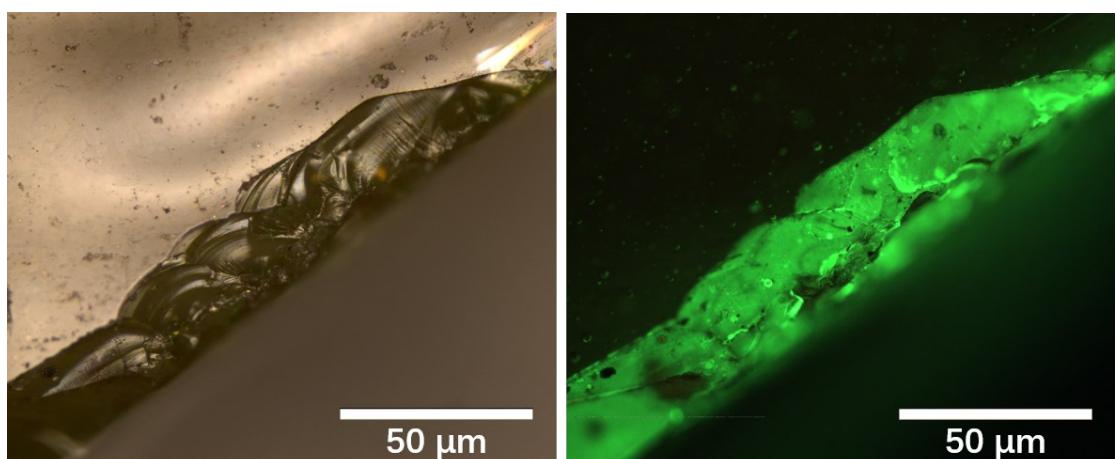
HT condition	$\tau_1$ (ns)	$\tau_2$ (ns)	R-square
450 °C/10h	1.3	11.4	98.4%
470 °C/10h	2.6	13.0	99.9%
490 °C/10h	2.6	13.1	99.8%



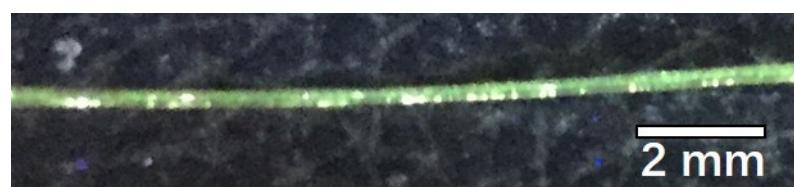
**Fig. S3** Surface PL mapping of PNC glass-ceramic after immersing in water for 2 weeks.



**Fig. S4** Surface PL mapping of PNC-film on glass after immersing in water for 2 hours.



**Fig. S5** Surface PL mapping of PNC glass-ceramic focusing on the side face.



**Fig. S6** A PNC glass-ceramic fiber.