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Finely regulated luminescent Ag-In-Ga-S quantum dots with dual emission for white light-emitting diodes

Zhi Wu, Leimeng Xu*, Jindi Wang and Jizhong Song*

¹Key Laboratory of Materials Physics of Ministry of Education, Laboratory of Zhongyuan Light, School of Physics, Zhengzhou University, Daxue Road 75, Zhengzhou 450052, China.

*Correspondence: LM Xu, E-mail: xuleimeng@zzu.edu.cn; JZ Song, E-mail: songjizhong@zzu.edu.cn

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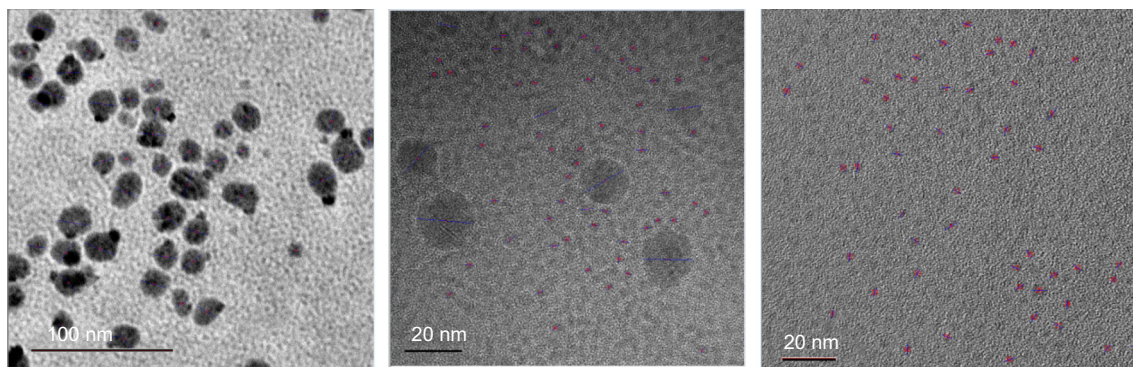


Fig. S1 | The size distribution of AIGS QDs synthesized at different temperature from selected TEM images.

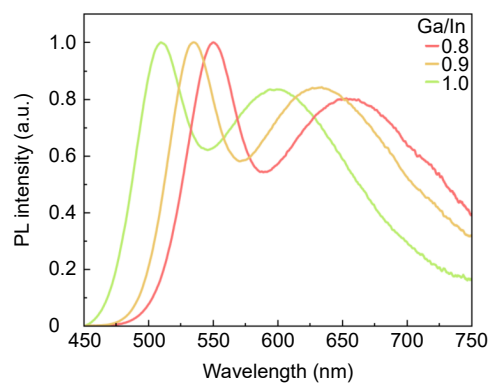


Fig. S2 | The PL spectra of AIGS QDs with different proportion of Ga/In.

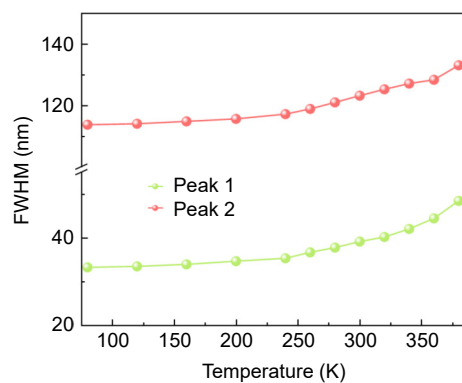


Fig. S3 | The FWHM of spectra versus temperature curves.

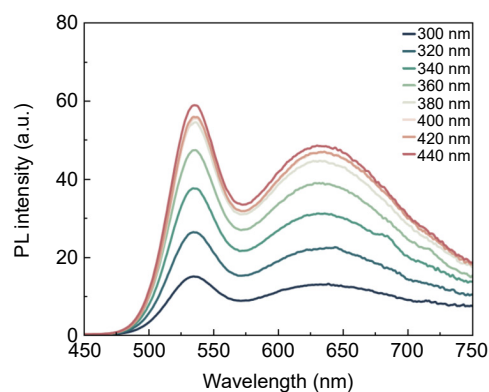


Fig. S4 | The PL spectra of AIGS QDs at different excitation wavelength.

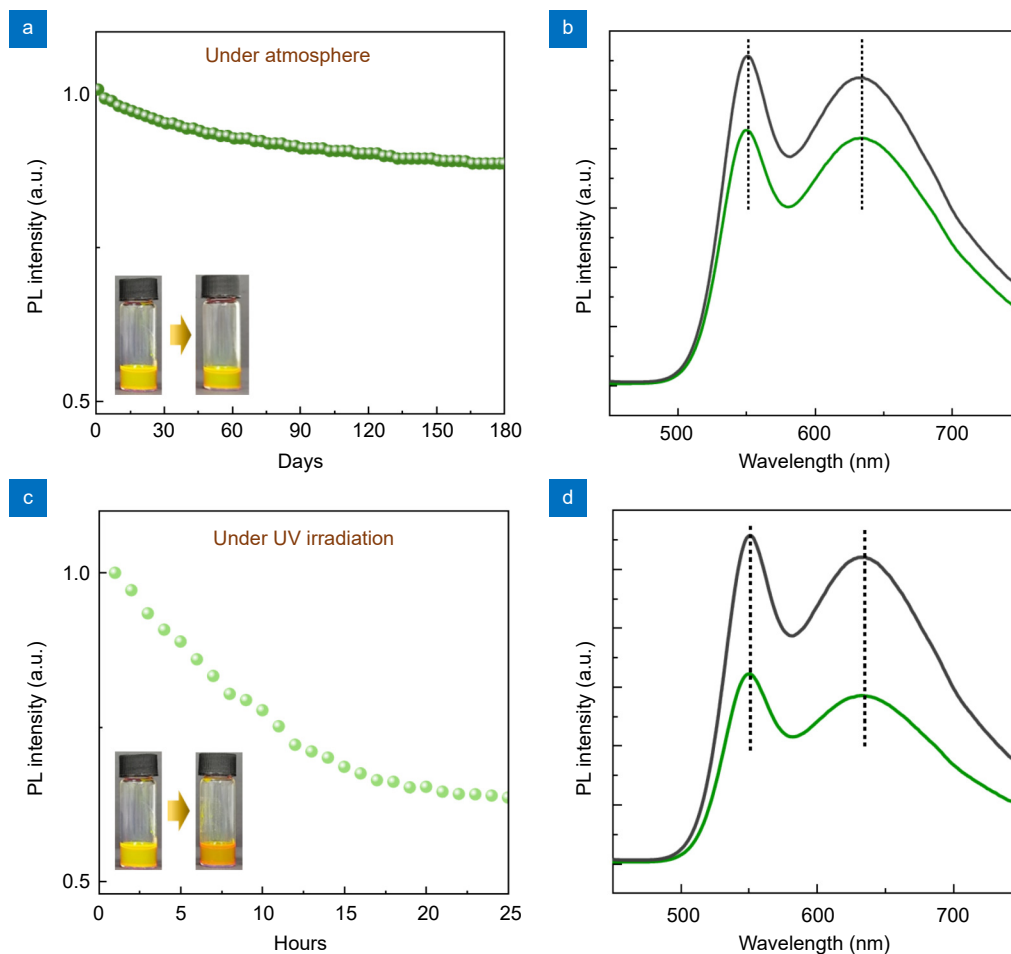


Fig. S5 | (a) PL attenuation of AIGS QDs at atmosphere and (b) corresponding PL spectra before and after six months. (c) PL attenuation of AIGS QDs under continuous UV (365 nm) irradiation and (d) corresponding PL spectra before and after 24 hours.

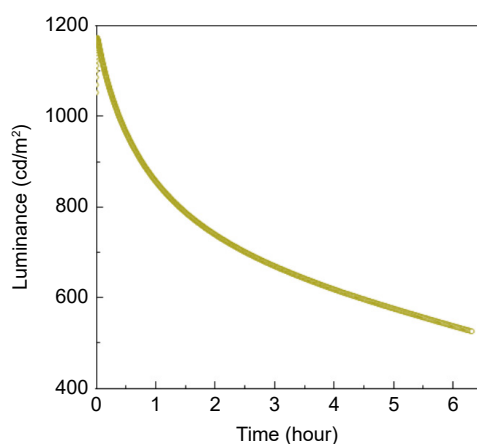


Fig. S6 | The lifetime of AIGS QD-based WLED at an initial luminance of 1200 cd/m².

Table S1 | The atomic ratios of AIGS QDs synthesized at different temperature from ICP-OES.

	1#(180 °C) mmol/L	2#(190 °C) mmol/L	3#(220 °C) mmol/L	4#(240 °C) mmol/L	5#(250 °C) mmol/L
Ag	39.6	28.3	25.3	36.1	22.9
In	58.5	31.7	32.8	38.4	29.5
Ga	46.4	23.2	28.7	39.2	27.2
S	28.9	65.0	48.7	130.7	51.1
Ratio	1:1.5:1.2:0.7	1:1.1:0.8:2.3	1:1.3:1.1:1.9	1:1.1:1.1:3.6	1:1.3:1.2:2.2