Supporting Information

A Facile Method for Synthesis of Quaternary Ag-In-Zn-S Alloyed Nanorods

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	Ag	In	Zn	Ratio
Atomic%				
Sample				
Red	6.01	6.20	23.66	1:1.03:3.93
Orange	5.95	5.92	27.98	1:0.99:4.70
Yellow	5.90	5.85	33.74	1:0.99:5.72

S_Table 1. Elemental ratios of Ag-In-Zn-S straight nanorods with different emission wavelengths.



S_Figure 1. EDX data of the Ag-In-Zn-S straight nanorods.



S_Figure 2. (A) PL emission spectra of the AIZS nanorods versus the standard rhodamine 6G ethanol solution (QY=95%), (B) PL emission spectra of the AIZS nanorods versus the standard rhodamine 101 ethanol solution (QY=100%) and (C) PL emission spectra of the AIZS nanorods versus the standard rhodamine 101 ethanol solution (QY=100%). The quantum yields of the four alloy nanoparticles were 38%, 42% and 44%, respectively.



S_Figure 3. Magnified TEM image of the Ag-In-Zn-S intermittent nanorods (scale bar is 2 nm).



S_Figure 4. EDX data of the Ag-In-Zn-S nail-like nanorods.



S_Figure 5. XPS spectrum of (a) Zn 2p3,(b) In 3d,(c) Ag 3d, (c) and (d) S 2p,



S_Figure 6. XRD pattern of the Ag-In-Zn-S nail-like nanorods.