Supporting Information for:

Determination of alizarin red S based on layered double hydroxides improved chemiluminescence from hydrogen peroxide and luminol

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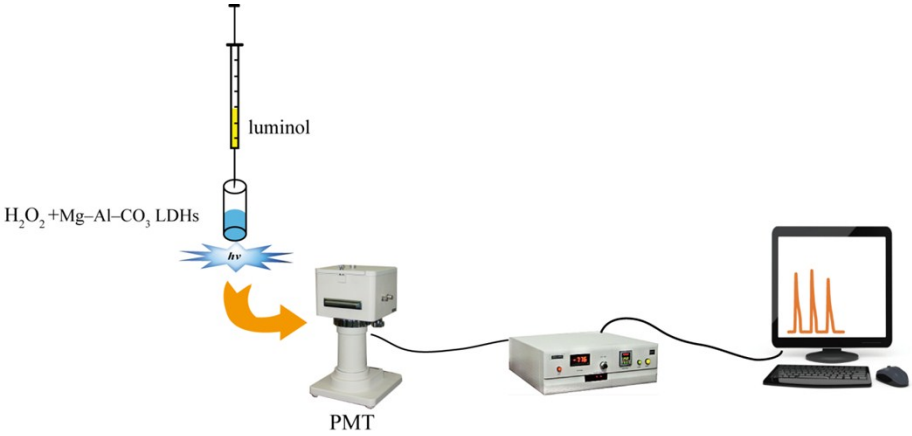

Fig. S1. Schematic diagram of CL detection coupled with static injection system.

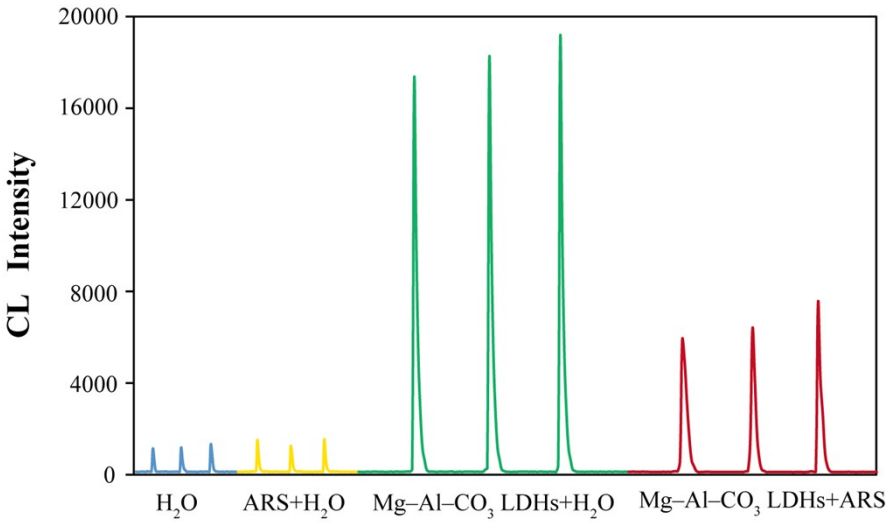

Fig. S2. CL signals of the H_2O_2-luminol system without or with addition of ARS, Mg-Al-CO_3 LDHs or Mg-Al-CO_3 LDHs + ARS. The concentration of ARS was 10 μM.

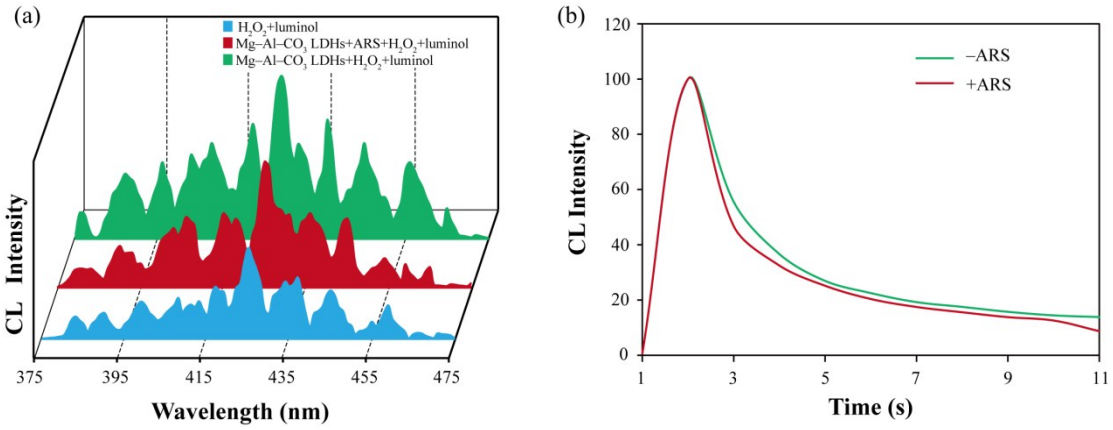

Fig. S3. (a) CL spectra of H_2O_2-luminol system without or with addition of Mg–Al–CO_3 LDHs or Mg–Al–CO_3 LDHs + ARS. (b) CL kinetics of LDH-H_2O_2-luminol system in the absence (green line) and presence of ARS (red line).

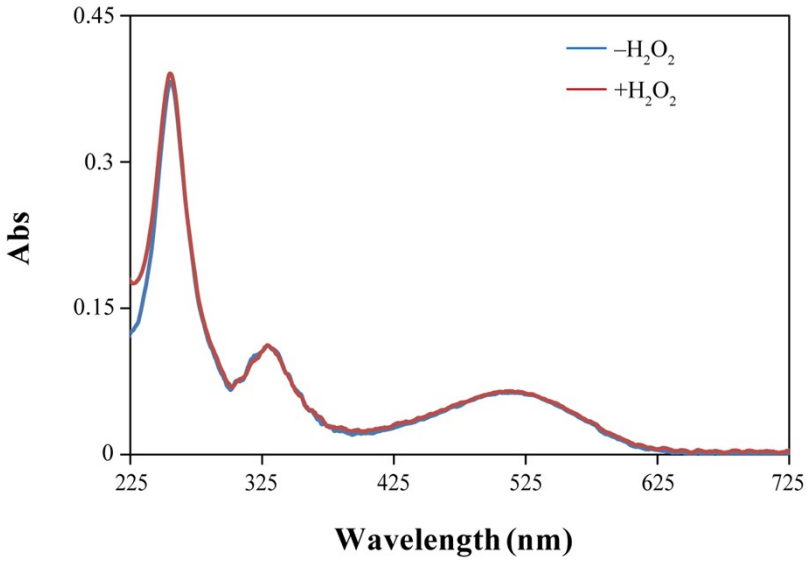

Fig. S4. UV-Vis absorption spectra of ARS solution (20 μM) in the absence (blue line) and presence (red line) of 750 μM H_2O_2.

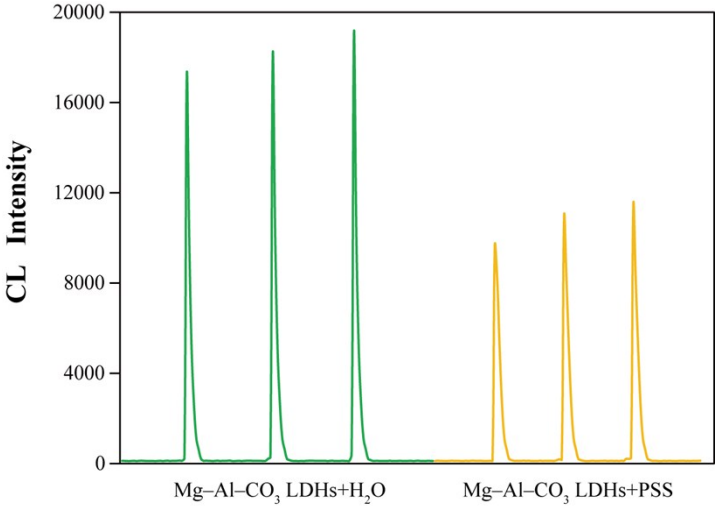

Fig. S5. CL signals of the H_2O_2-luminol system in the absence and presence of PSS (sulfonic group concentration, 120 μM).

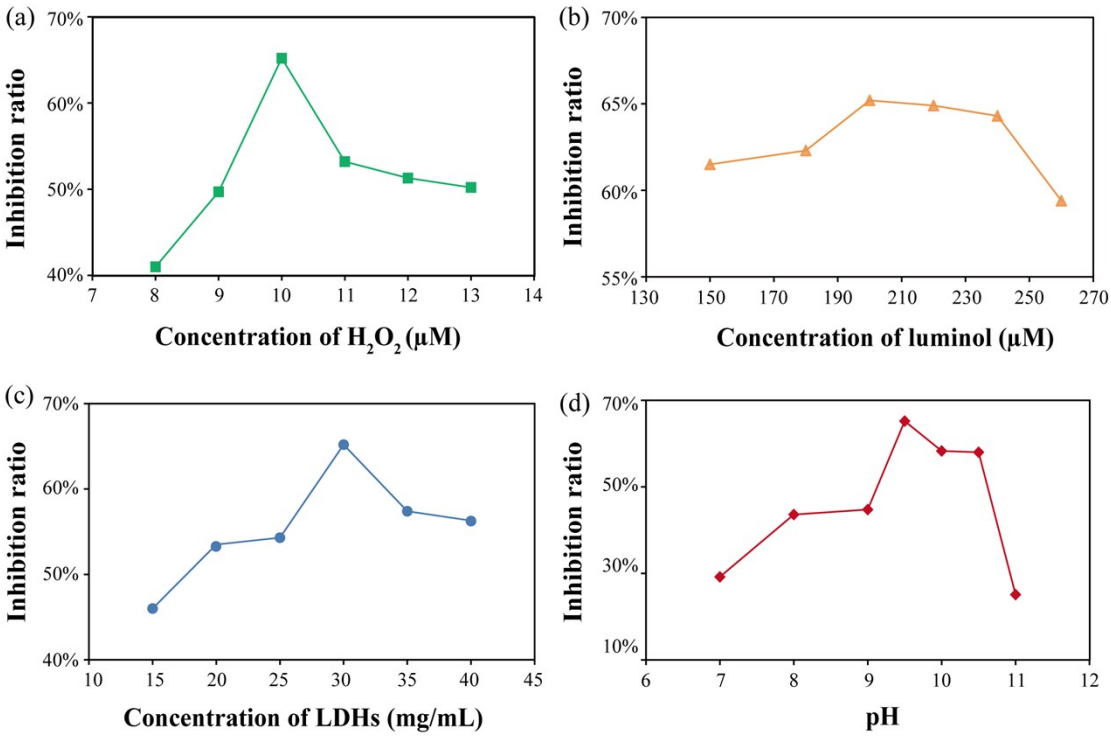

Fig. S6. CL inhibition ratio caused by ARS under different H_2O_2 concentration (a), luminol concentration (b), LDHs concentration (c) and pH (d).

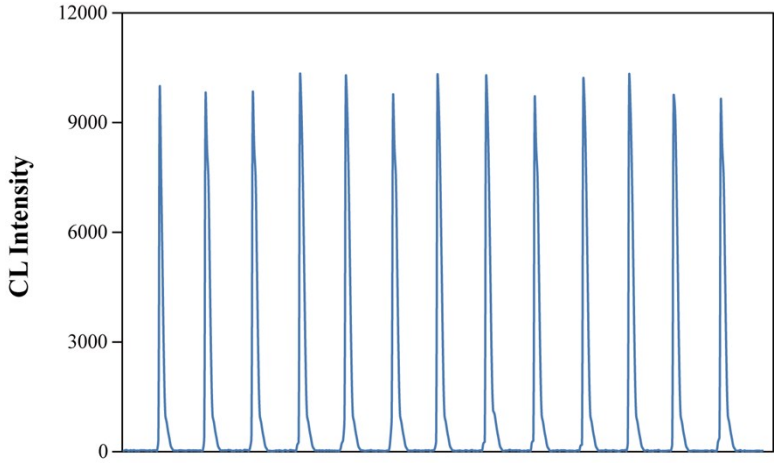

Fig. S7. CL signals of LDH-H_2O_2-luminol system for 13 repeated measurements in the presence of ARS (1 μM).

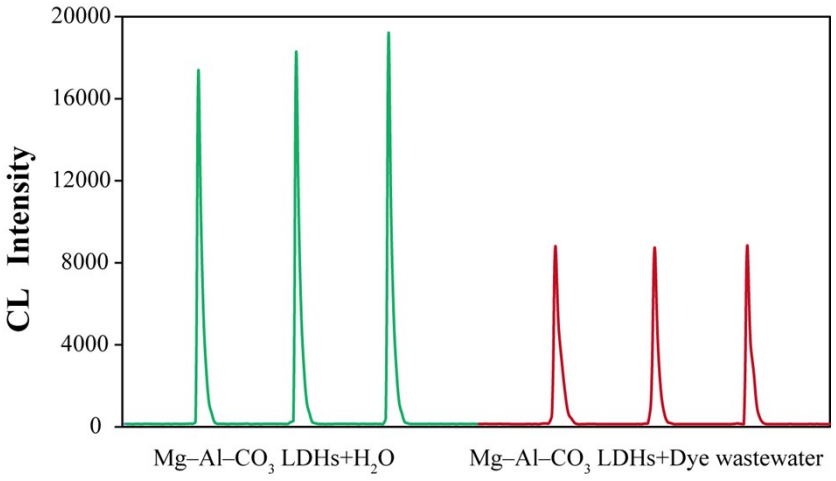

Fig. S8. CL signals of LDH-H_2O_2-luminol system without (green line) and with (orange line) the addition of dye wastewater.

Sample	Present Methods/μM	Added/μM	Founded/μM	Recovery (%)
Dye wastewater	7.68 ± 0.15	4	4.22 ± 0.18	105.5 ± 4.50
		5	4.83 ± 0.17	96.6 ± 3.46

Table S1. Detection of ARS in dye wastewater samples.