Supporting Information

Water-dispersible and stable fluorescent Maya Blue-like pigments

Yujie Zhang,^{*a,b*} Ling Fan,^{*a,c*} Junping Zhang,^{*a,c*} and Aiqin Wang^{*a,c*}

^a Center of Eco-material and Green Chemistry, Lanzhou Institute of Chemical Physics,

Chinese Academy of Sciences, Lanzhou, 730000, P. R. China.

^b Graduate University of the Chinese Academy of Sciences, 100049 Beijing, P. R.

China.

^c R&D Center of Xuyi Palygorskite Applied Technology, Lanzhou Institute of Chemical Physics, Chinese Academy of Science, Lanzhou 730000, China.



Fig. S1. The relationship between concentration of PR 31 in the aqueous suspension and the absorbance at 568 nm.

Table S1. Zeta potentials of LRD suspensions with different grinding time.

Grinding time / min	0	2	5	10	20	30
Zeta potentials / mV	-46.97	-47.70	-47.00	-46.33	-45.73	-45.37



Fig. S2. XRD patterns of LRD and LRD/PR 31. The mixture of 40 mg of PR 31 and

200 mg of LRD was ground for 10 min.



Fig. S3. Variation of concentration and percentage of dispersed PR 31 in aqueous suspension with amount of deionized water. The mixture of 40 mg of PR 31 and 200 mg of LRD was ground for 10 min and ultrasonicated for 30 min, and then centrifugated at 8000 rpm for 20 min.



Fig. S4. Digital images of the (a) LRD/PR 31 and (b) palygorskite/PR 31 aqueous dispersions after standing in ambient conditions for different time. The mixture of 500 mg of PR 31 and 500 mg of LRD (or palygorskite) was ground for 5 min. 100 mL of deionized water was added to the mixture in a flask to form a suspension. The suspension was mechanically stirred at 1000 rpm for 30 min before left for standing.

Movie S1. Wettability of the glass slides coated with PR 31 and LRD/PR 31. This video highlights the evident difference in wettability between PR 31 and LRD/PR 31.