## Supporting Information

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## Dip coated rapeseed meal composite as a green carrier for

## light induced controlled release of pesticide

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Figure S1.The Pxd loading capacity of RSM, Pre-RSM, RSM-PODS, and RSMPODS/AAB at different times.


Figure S2.The statistical evaluations of weeding rate of Pxd-loaded RSM-PODS/AAB with different light. (A) RSM-PODS/AAB (UV-vis), (B) RSM-PODS/AAB (sunlight), (C) RSM-PODS/AAB (without light), (D) Pxd, (E) (UV-vis) and (F) sunlight.

Table S1. Atomic concentrations from XPS survey scans.

| Sample | RSM | Pre-RSM | RSM-PODS | RSM-PODS/AAB |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| C1s | 77.87 | 77.16 | 76.93 | 77.97 |
| N1s | 3.1 | 3.5 | 3.51 | 3.27 |
| O1s | 19.03 | 19.34 | 18.37 | 17.56 |

Table S2. DSS of RSM-PODS and RSM-PODS/AAB calculated from $\%$ Si.

| Sample | $\%$ Si | DSS |
| :---: | :---: | :---: |
| RSM-PODS | 1.19 | 0.079 |
| RSM-PODS/AAB | 1.20 | 0.078 |

