Electronic Supplementary Information

Stimulating bioplastic production with light energy by coupling *Ralstonia eutropha* with the photocatalyst graphitic carbon nitride

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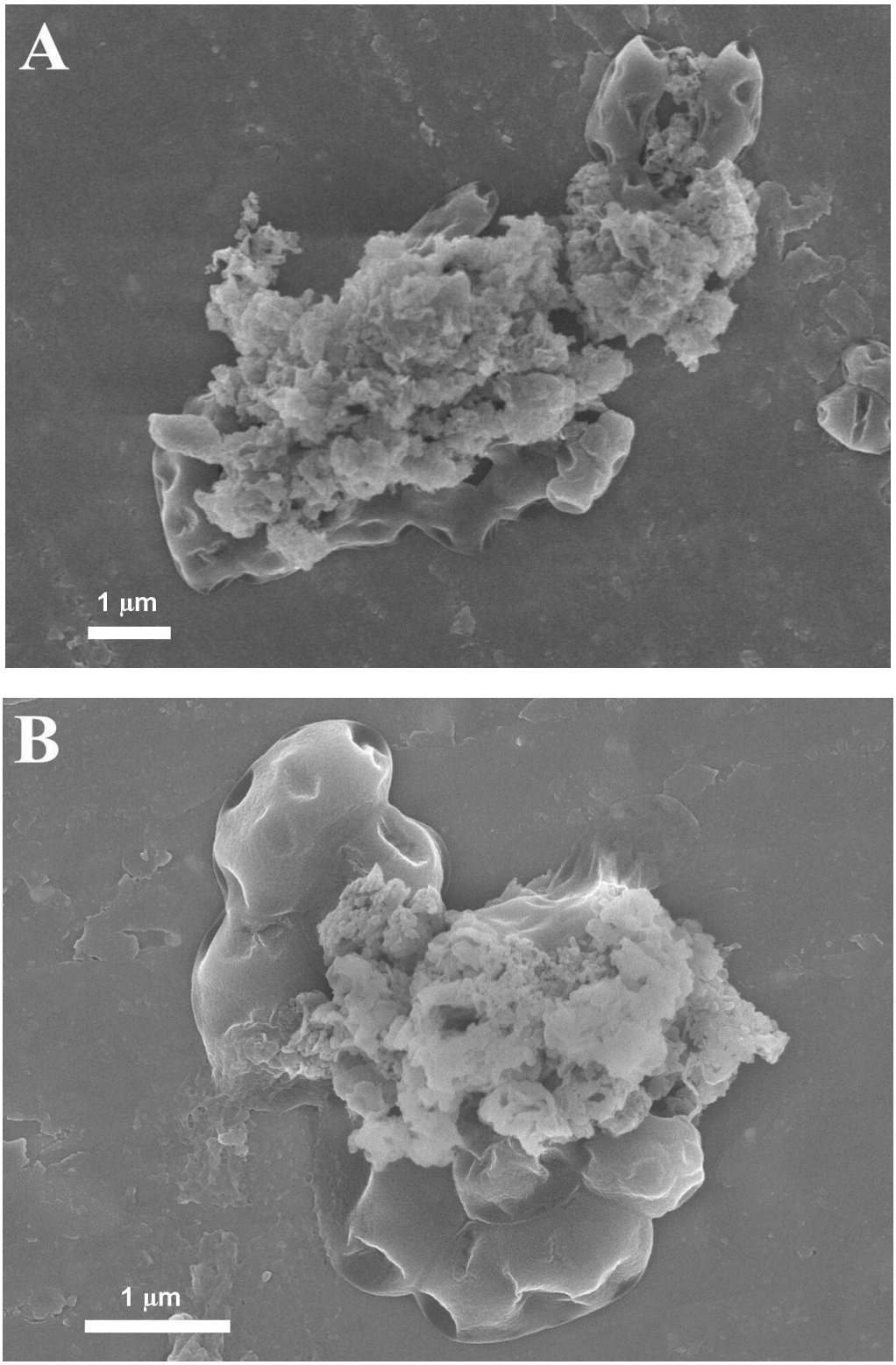

Figure S1. SEM images of aggregates formed after 24 hours when *R. eutropha* is grown under light in the presence of $^{0.5}$g-C_3N_4 and ^{5}TEOA.

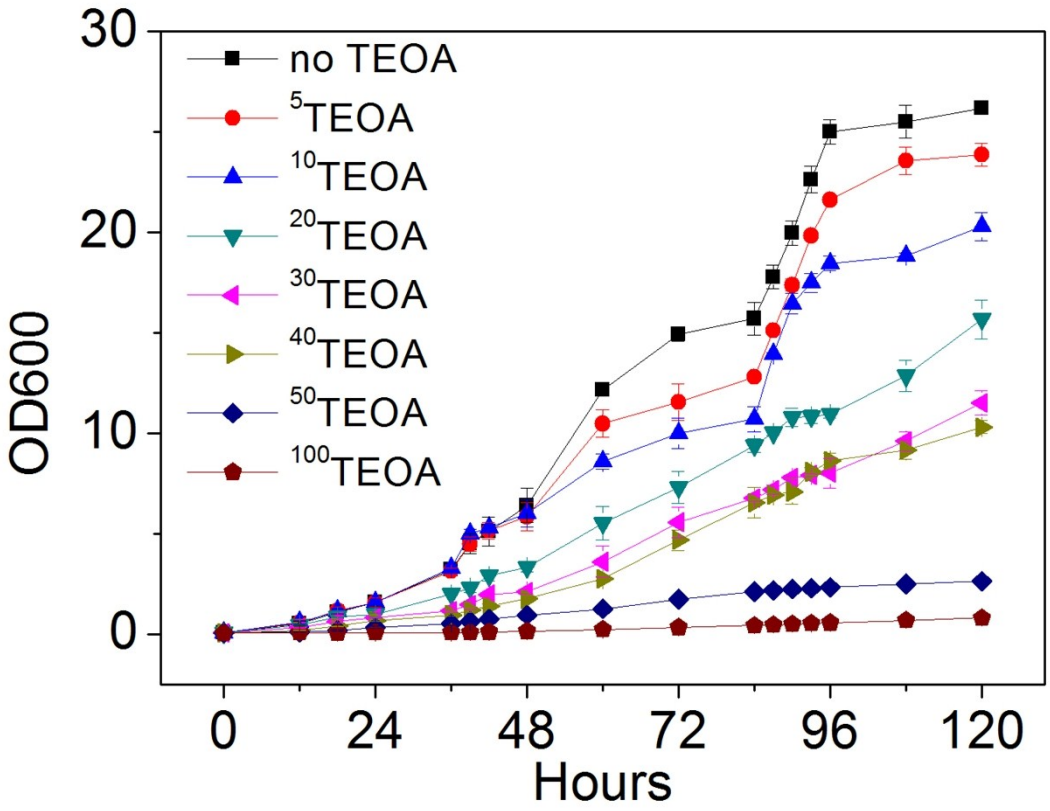

Figure S2. Growth of *R. eutropha* in the presence of different concentration of TEOA. Each curve is the mean and standard deviation of three replicates. OD600 represents the optical density at 600 nm of *R. eutropha* cultures, which is a measure of the concentration of bacterial cells in suspension.

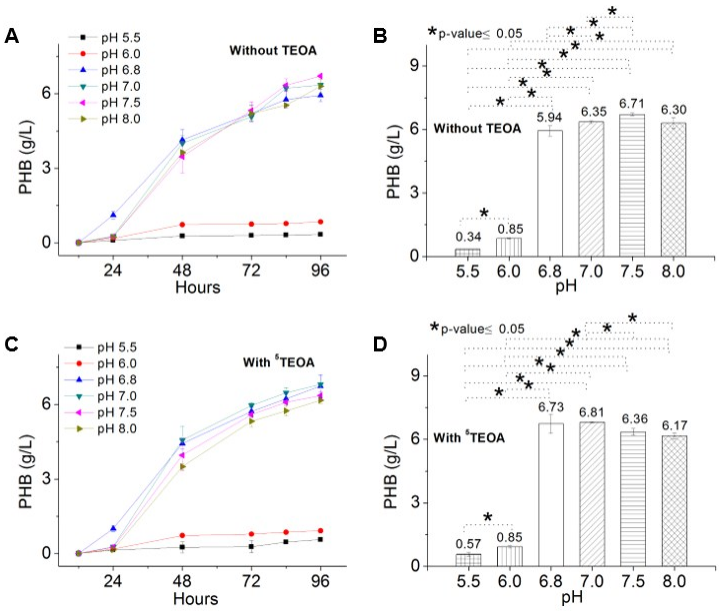

Figure S3. Impact of growth medium's pH on light-driven PHB production by *R. eutropha* from fructose with g-C_3N_4. (A) PHB production over time and (B) PHB production at 96 hours by *R. eutropha* and $^{0.5}$g-C_3N_4 without TEOA under illumination at pH ranging from 5.5 to 8.0. (C) PHB production over time and (D) PHB production at 96 hours by *R. eutropha* and $^{0.5}$g-C_3N_4 with ^{5}TEOA under illumination at pH ranging from 5.5 to 8.0. Each curve and bar are the mean and standard deviation of three replicates. * indicates that *p*-value is below 0.05.

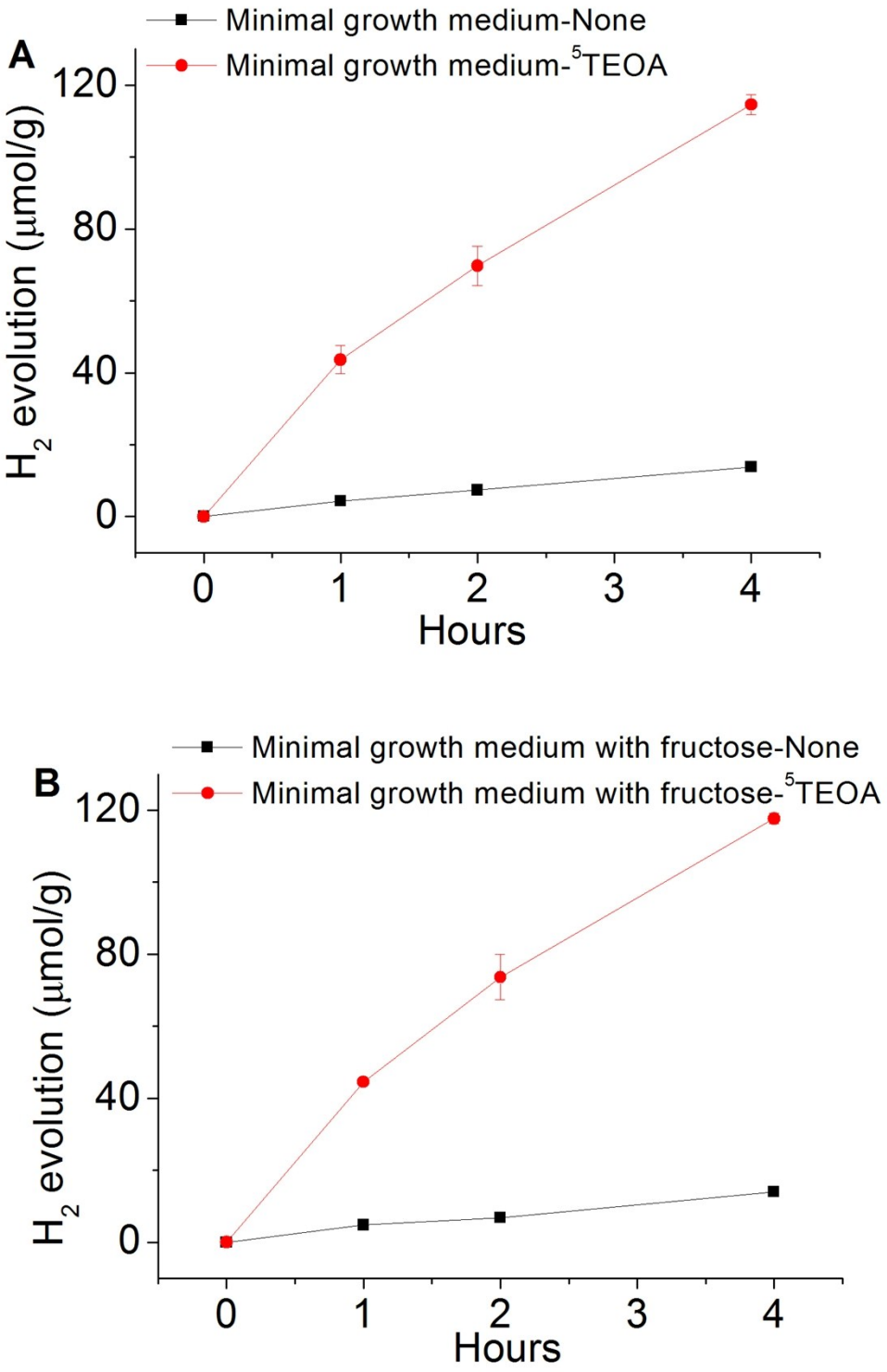

Figure S4. Photocatalytic H_2 evolution with $^{0.5}C_3N_4$ in the presence or not of ^{5}TEOA in (A) minimal growth medium and in (B) minimal growth medium with fructose. Each curve is the mean and standard deviation of three replicates.