Electronic Supplementary Material (ESI) for Nanoscale.

An all-carbon microporous graphitic photocatalyst promotes CO_2 reduction to CO in the absence of metals or dopant elements.

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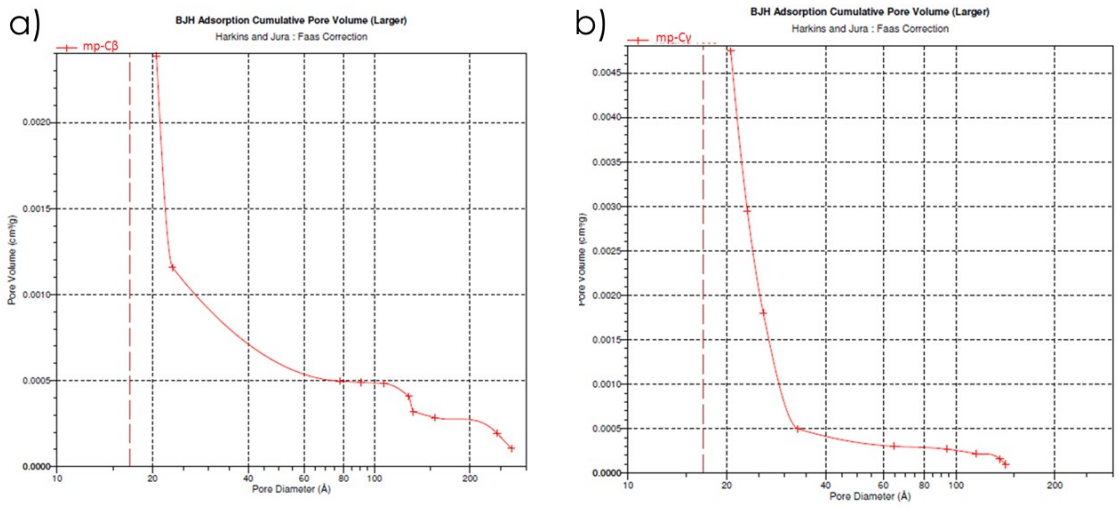

Fig. S1. Pore size distribution for mp-Cb and mp-Cg measured from isothermal N2 desorption branch.

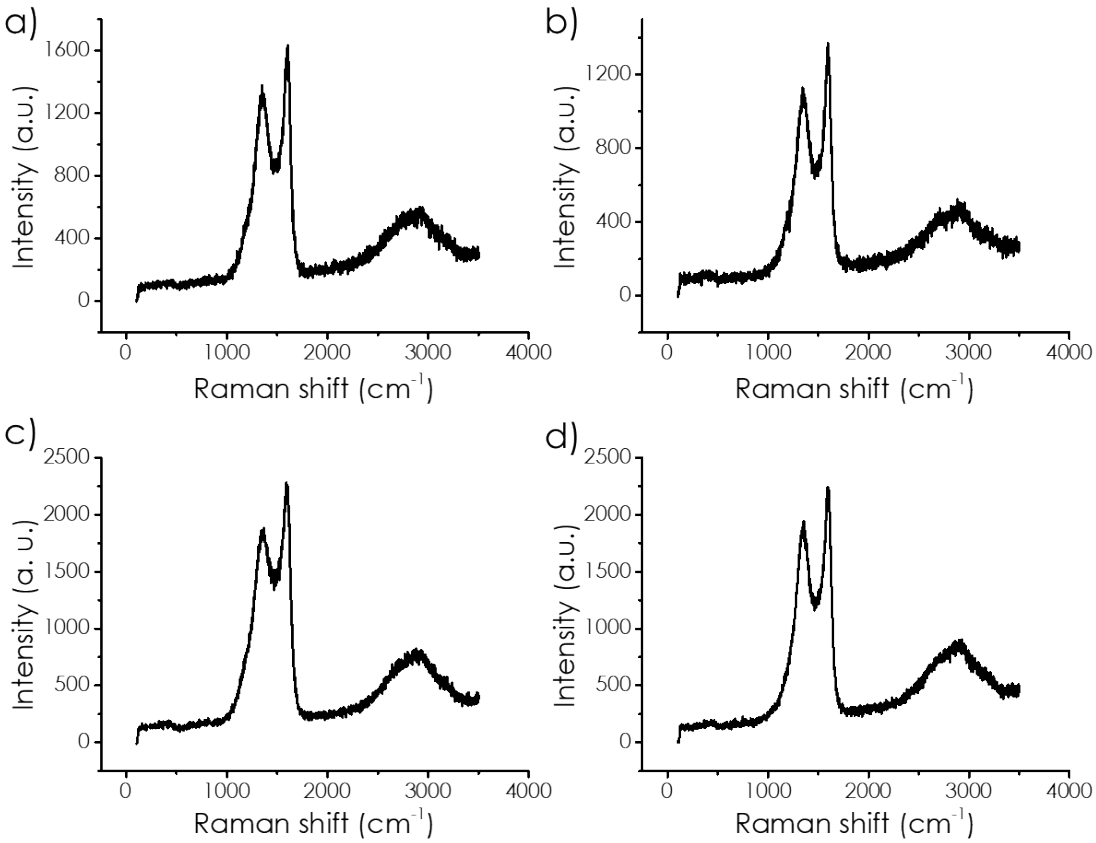

Fig. S2. Raman spectra of a) mp-C_β, b) mp-C_γ , c) mp(N)-C_α y d) mp(P)-C_α.

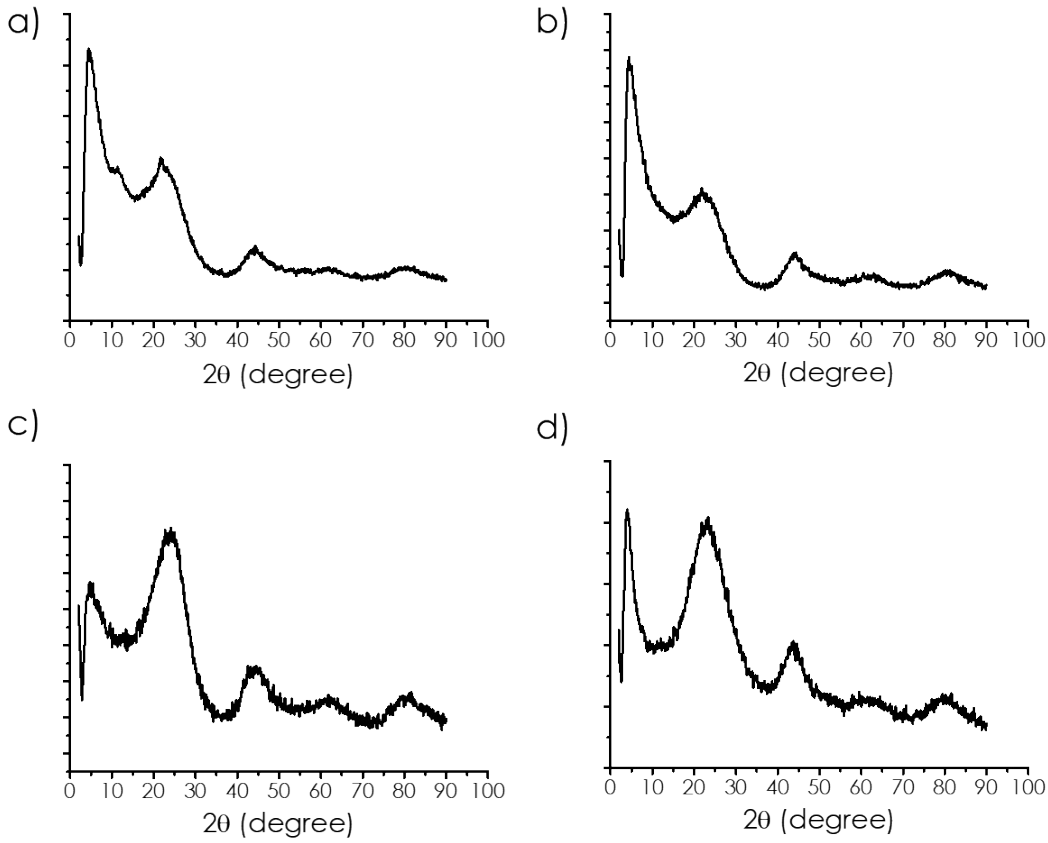

Figure S3. XRD spectra of the samples a) mp-C_β, b) mp-C_γ , c) mp(N)-C_α y d) mp(P)-C_α.

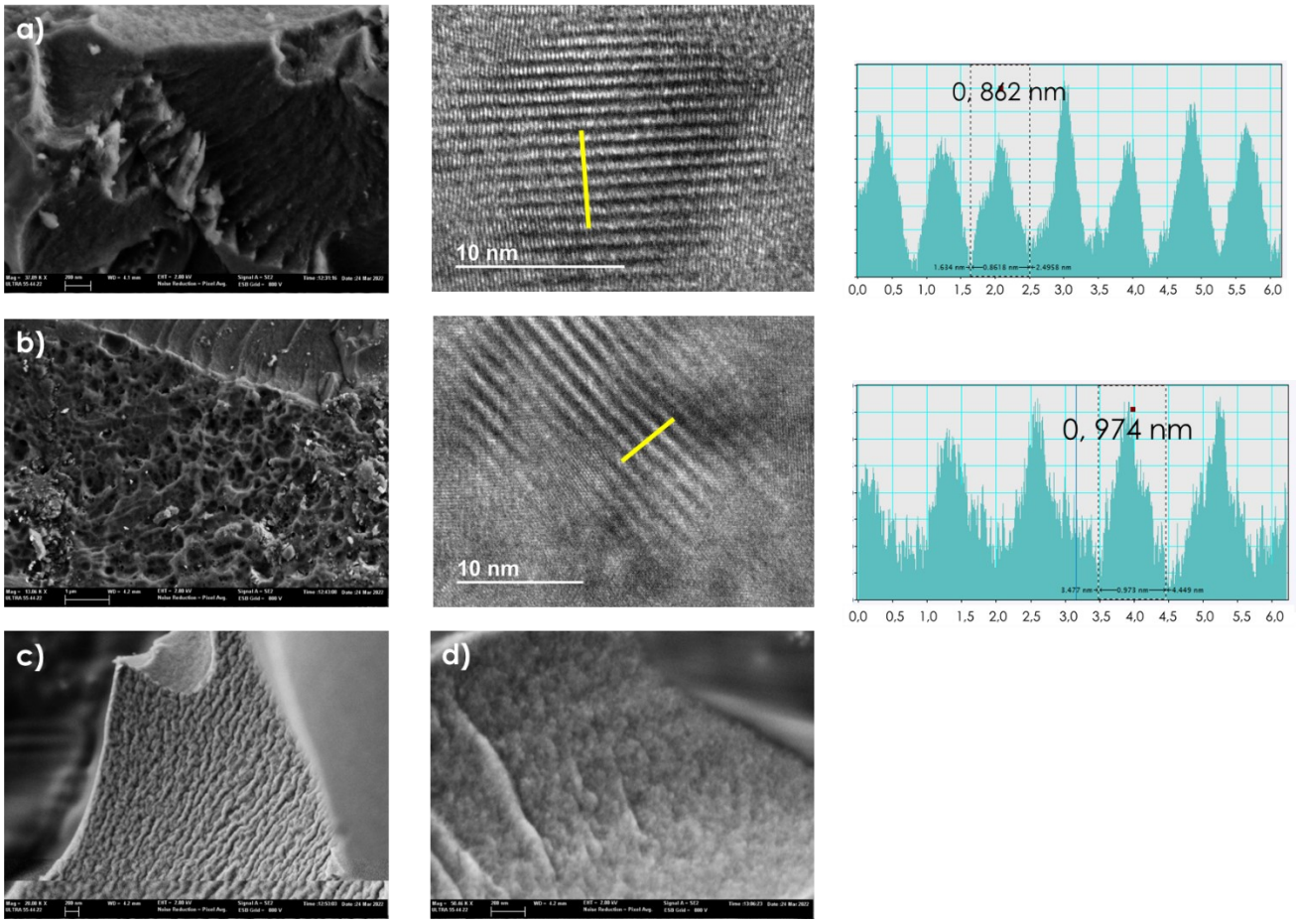

Figure S4. FESEM and TEM images of the samples a) mp-C_{β}, b) mp-C_{γ} , c) mp(N)-C_{α} y d) mp(P)-C_{α}.

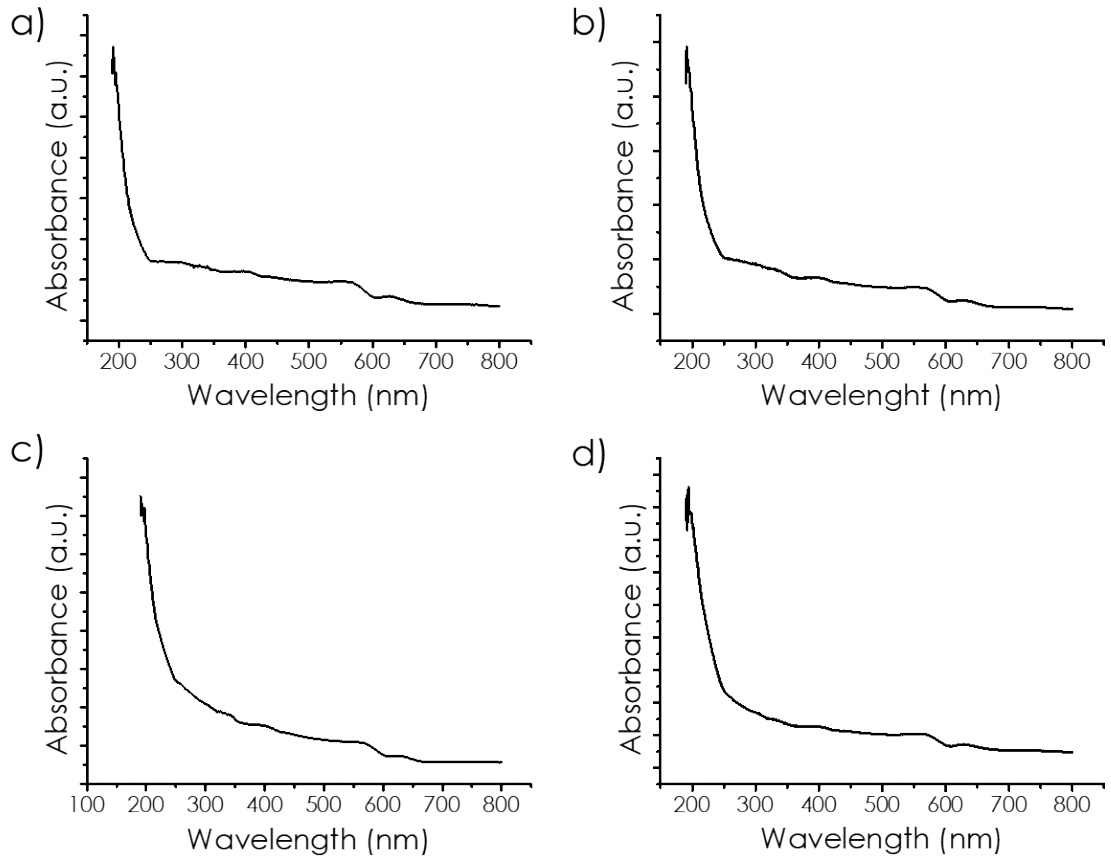

Figure S5. DR-UV-Vis spectra of all the studied samples: a) mp-C_β, b) mp-C_γ, c) mp(N)-C_α y d) mp(P)-C_α.

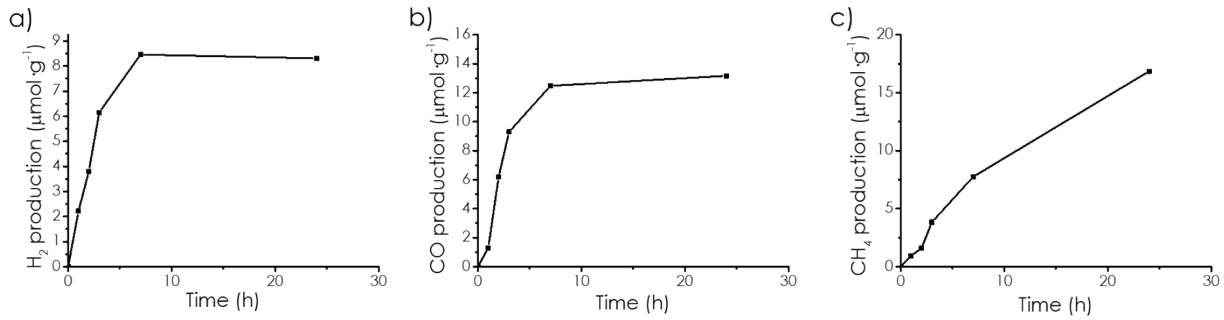

Figure S6. Gas production of the sample mp-C_α using the solar simulator a) H_2; b) CO; c) CH_4.

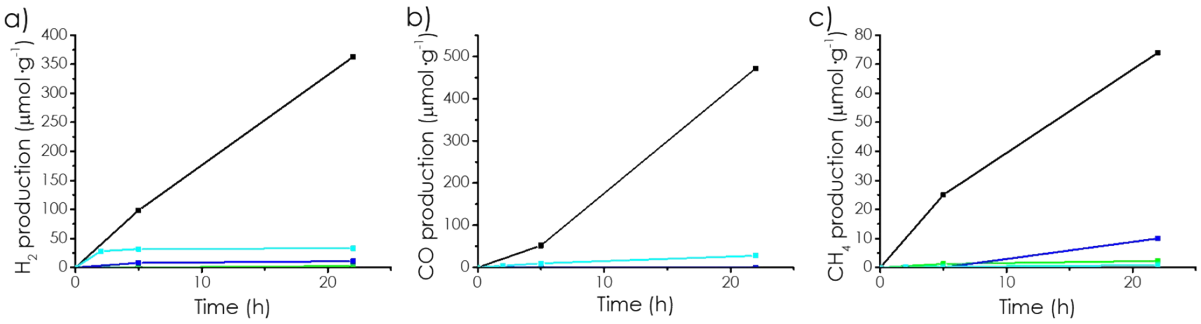

Figure S7. Blank reactions gas production a) H_2; b) CO; c) CH_4 at the reactions mp-C_α (black), with no light (red), no mp-C_α (green), no CO_2 (blue) and no TEOA (cyan).

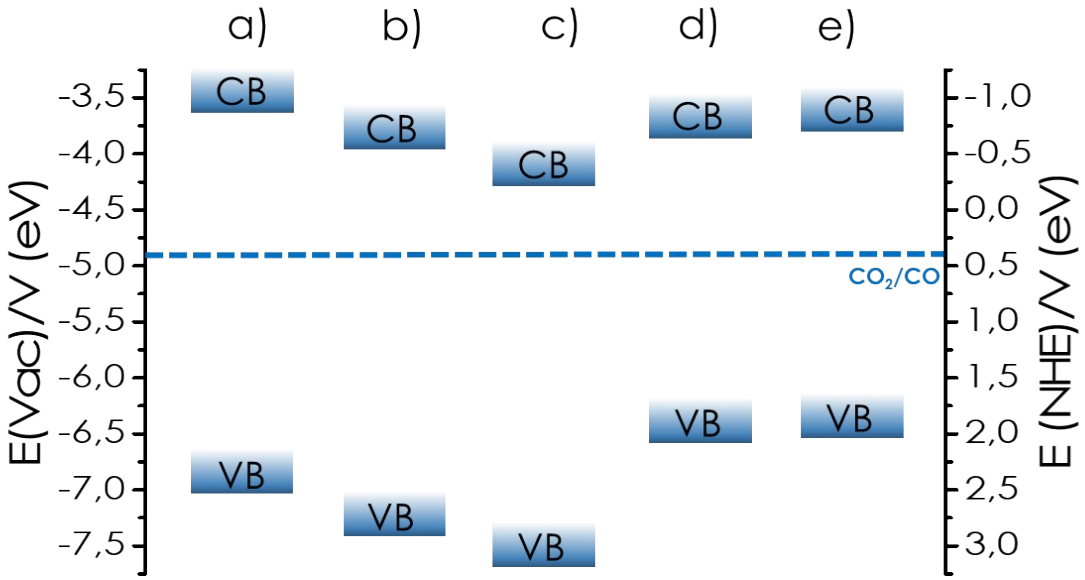

Fig S8. Positioning of the valence band (VB) and conduction band (CB) of the materials a) mp-C_α, b) mp-C_β, a) mp-C_γ, a) mp(N)-C_α, a) mp(P)-C_α.

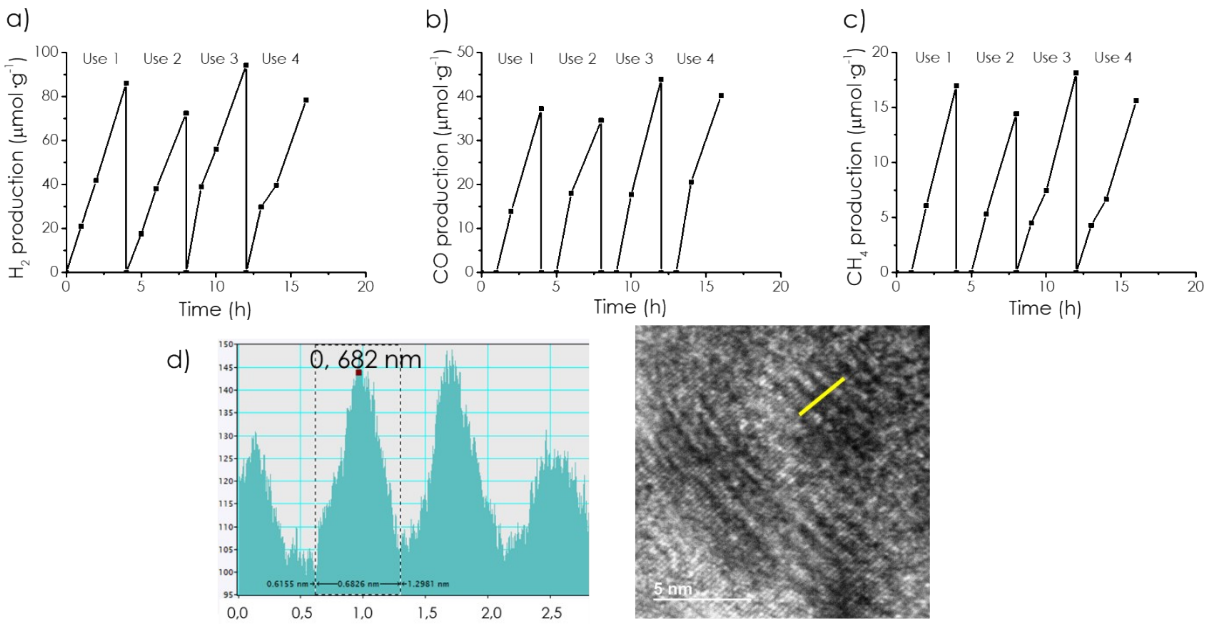

Figure S9. Temporal evolution profiles for a) H_2, b) CO and c) CH_4 in four consecutive uses of the sample mp-C_α and d) TEM image after these uses.

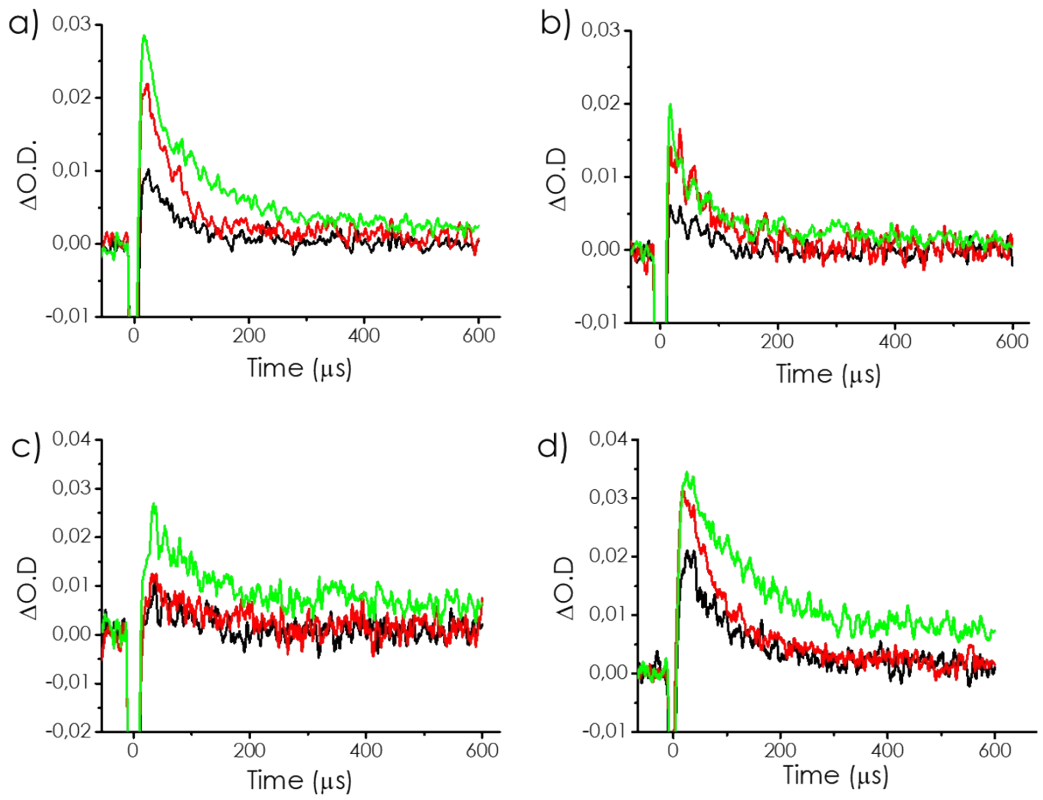

Figure S10. Transient signal decay monitored at 400 nm for a) mp-C_β, b) mp-C_γ, c) mp(N)-C_α, and d) mp(P)-C_α in the N_2 atmosphere in the absence of any quencher (black) or in the presence of CH_3OH (red, quenching holes) or O_2 (green, quenching electrons)