

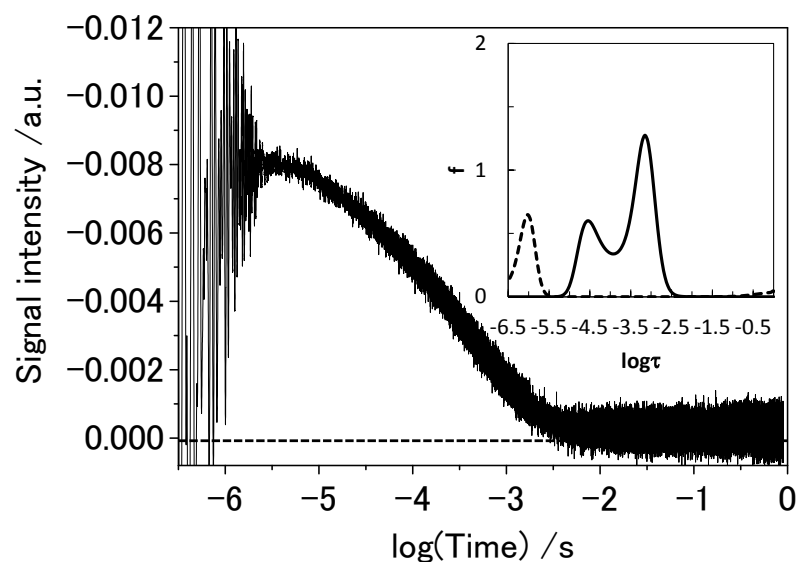
Photoexcited Charge Carrier Dynamics of Interconnected TiO₂ Nanoparticles: Evidence of Enhancement of Charge Separation at Anatase-Rutile Particle Interfaces

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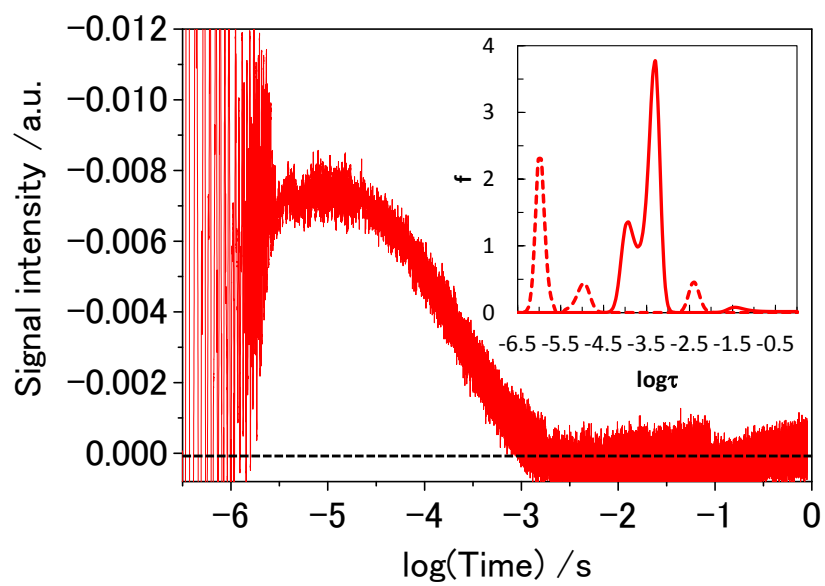
Supplementary Information (SI)

Heterodyne transient grating (HD-TG) responses of P25 films in acetonitrile, depending on the grating space dependence of (a) 65 μm , (b) 85 μm and (c) 105 μm , respectively (Figure S1) The time constant distributions were analyzed by the MEM analysis in the range of $10^{-6.5}$ to 1 s (inset).

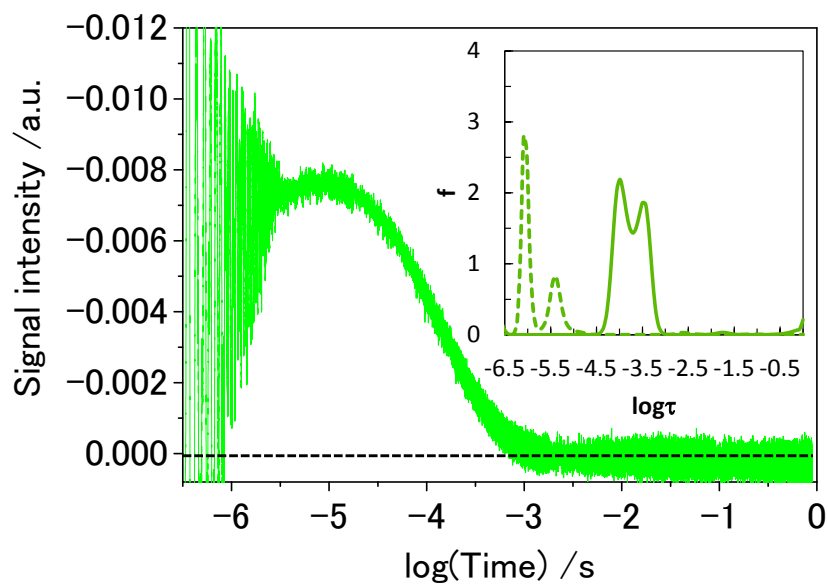
(a)



(b)

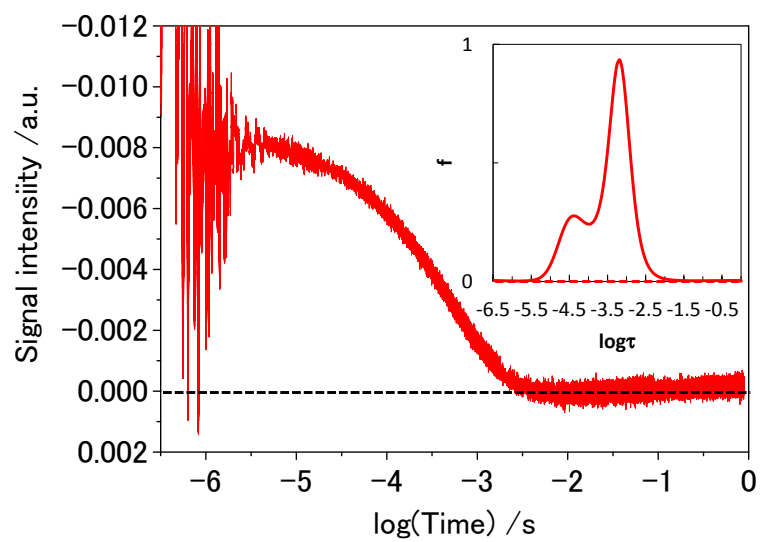


(c)

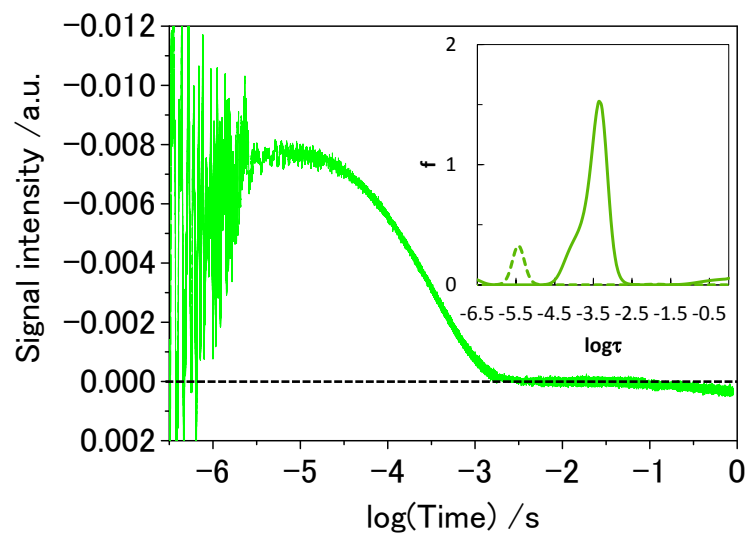


HD-TG responses of P25 (a) in acetonitrile with 0.1 M TEMPO and (b) in ethanol (Figure S2)

(a)



(b)



The time constants of the recombination dynamics of the surface trapped electrons (τ_1) , holes (τ_2) and thermal diffusion (τ_3) (Table S1)

Photocatalyst	Solvent	τ_1 / μ s	τ_2 / μ s	τ_3 / μ s
P25	TEMPO	-	29.6	601
P25	Ethanol	3.66	-	324