Supporting Information

Electron-Transfer Oxidation Properties of Unsaturated Fatty Acids and Mechanistic Insight into Lipoxygenases

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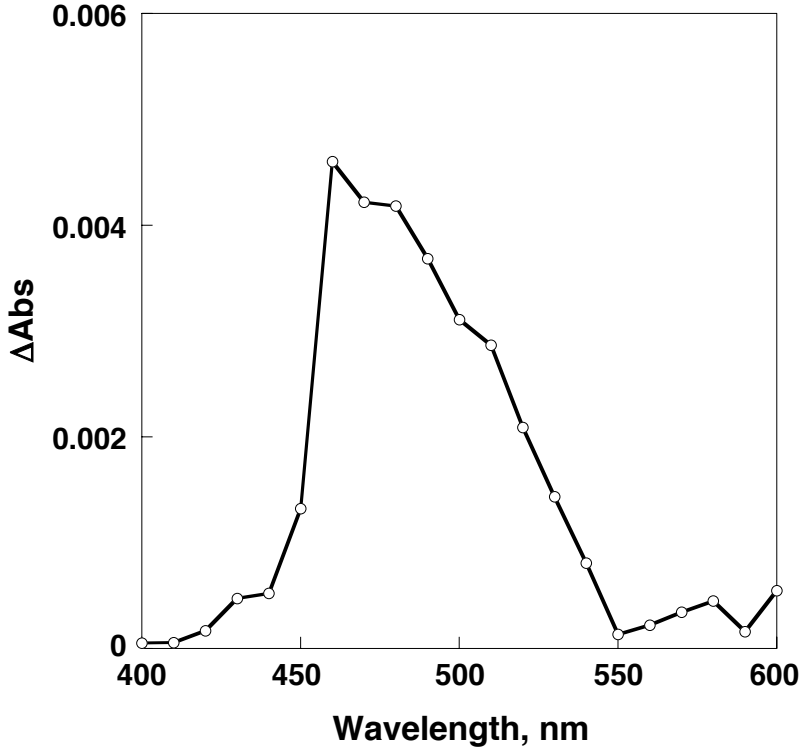

Figure S1. Difference transient absorption spectrum obtained by subtraction of the spectrum observed at 200 μs from the spectrum observed at 8 μs after laser excitation of deaerated MeCN solution of $AcrH^+$ (1.0×10^{-4} M) and linoleic acid (5.0×10^{-2} M) at 298 K.

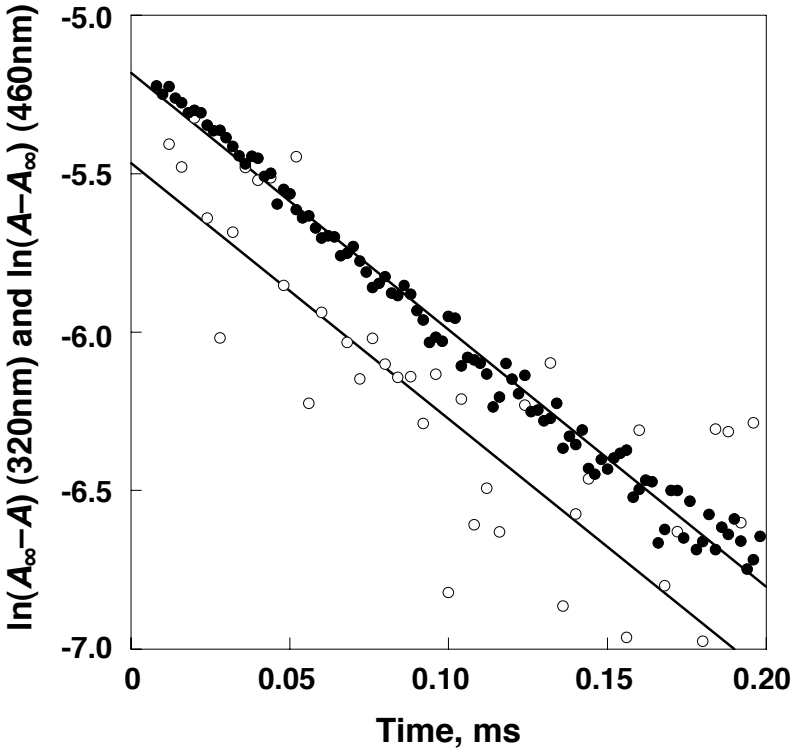

Figure S2. First-order plots based on the absorption changes at λ = 320 nm (○) and 460nm (●) observed in photoinduced electron transfer from linoleic acid (5.0 x 10^{-2} M) to the singlet excited state of $AcrH^+$ (1.0 x 10^{-4} M) in deaerated MeCN at 298 K observed after irradiation of laser pulse at λ = 355 nm with 64 mJ/pulse.

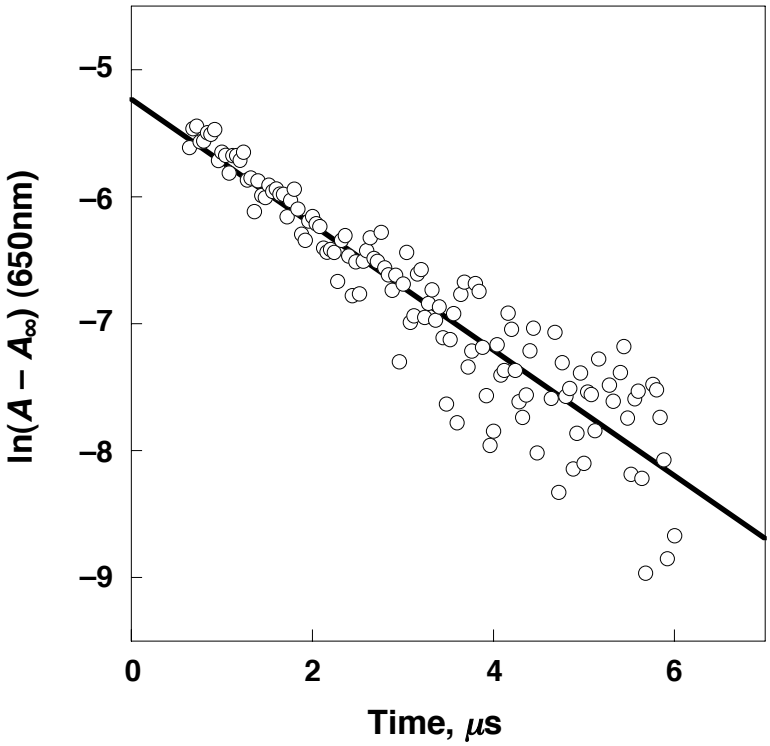

Figure S3. First-order plot based on the absorption change at λ = 650 nm observed in photoinduced electron transfer from oleic acid (5.0 x 10^{-2} M) to the singlet excited state of $AcrH^+$ (1.0 x 10^{-4} M) in deaerated MeCN at 298 K observed after irradiation of laser pulse at λ = 355 nm with 64 mJ/pulse.

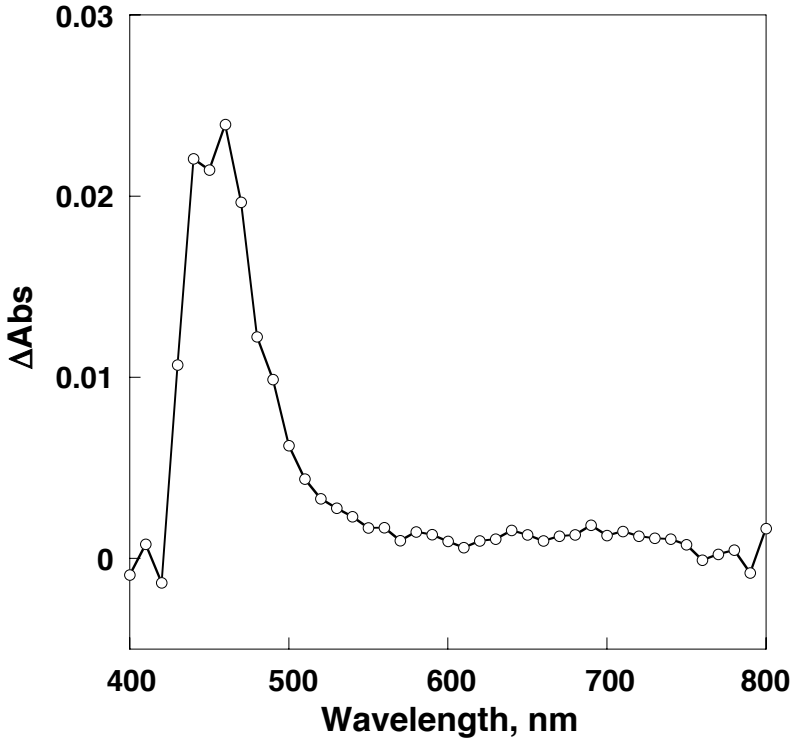

Figure S4. Transient absorption spectrum observed in photoinduced electron transfer from oleic acid (0.10 M) to the singlet excited state of DCA (2.7 x 10^{-4} M) in deaerated MeCN at 298 K observed at 8 μs after irradiation of laser pulse at λ = 355 nm with 64 mJ/pulse.