

Table S1: XPS binding energies in electron volts for as-deposited and heated samples.

Sample	Ti2p _{3/2}	C1s	Mn2p _{3/2}	O1s
as-deposited	458.8	284.7	642.3	530.0
heated ^[a]	458.8	285.1	642.5	530.1

[a] heated at 873 K for 2 h

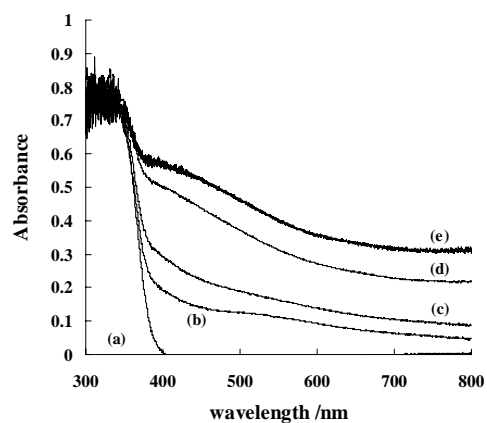


Figure S1. Electronic absorption spectra of β -MnO₂(n)/TiO₂: (a) $n = 0$; (b) $n = 1$; (c) $n = 2$; (d) $n = 3$; (e) $n = 5$.

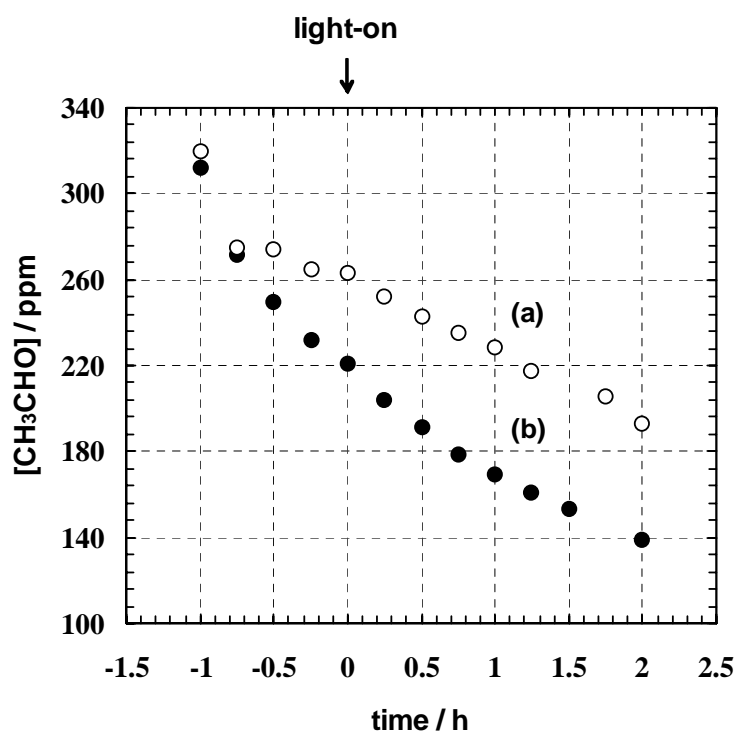


Figure S2. Time courses for the CH₃CHO decomposition in the dark and under irradiation: (a) TiO₂, (b) β -MnO₂/TiO₂.