*Supplementary Materials*

# A Novel Fluorescent-Material-Based Simple Method for Sunscreen Evaluation

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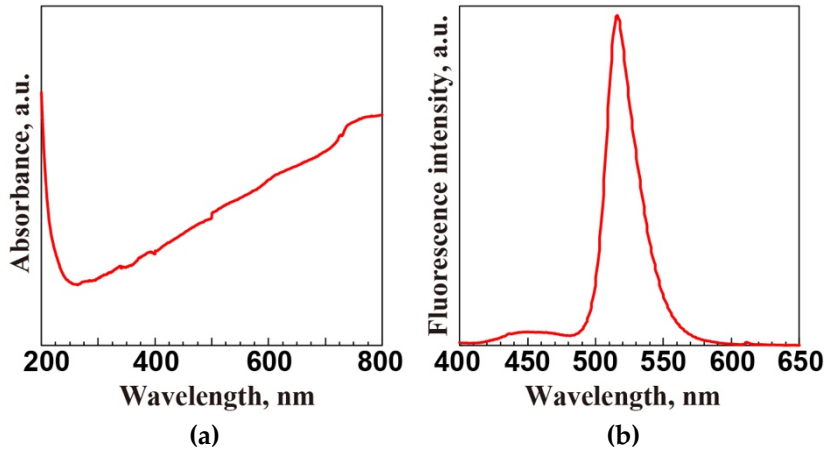



**Figure S1. (a)** Absorption spectrum of the UV-G fluorescent material obtained using a spectrophotometer. UV-G was dispersed in water at 0.2 wt% and measured through a 10 mm size quartz cell. V-630BIO (JASCO Corporation, Tokyo, Japan) was used for the measurement. **(b)** Emission spectrum of the fluorescent material UV-G at an excitation radiation of 375 nm obtained by absolute PL quantum yield measurement using a C9920-02 (Hamamatsu Photonics, Shizuoka, Japan) with air as the reference signal.

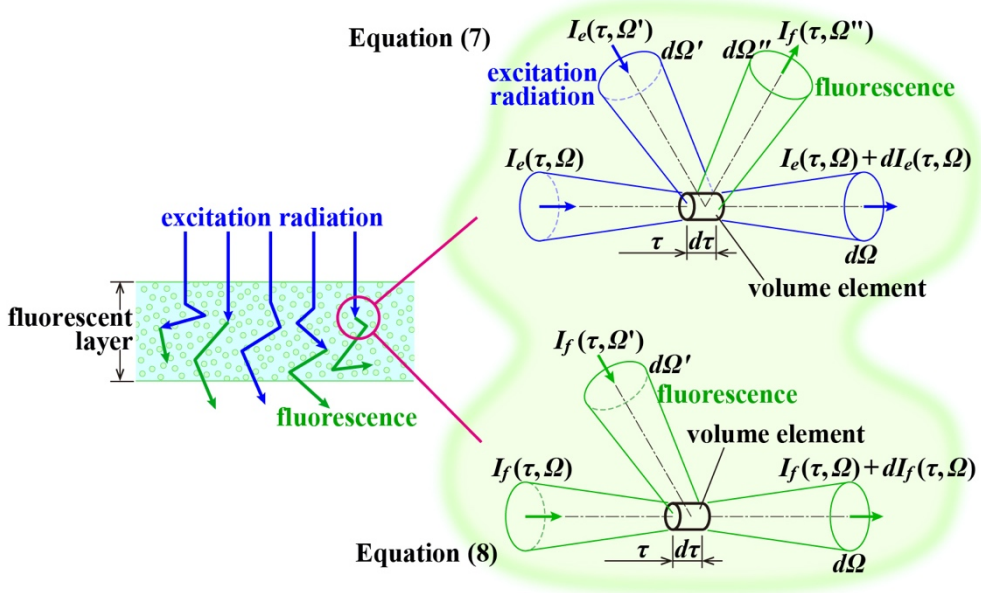



**Figure S2.** Graphical description of (7) and (8). Radiation scattering, absorption, and fluorescence emission of the fluorescent layer. These equations and figures illustrate the conservation of radiative energy for a small volume in a medium.