

Supporting Information for *Acta Phys. -Chim. Sin.* doi: 10.3866/PKU.WHXB201710271

Ag₇(MBISA)₆ Nanoclusters Conjugated with Quinacrine for FRET-enhanced Photodynamic Activity under Visible Light Irradiation

TOMINAGA C.¹, HIKOSOU D.¹, OSAKA I.², KAWASAK H.^{1,*}

¹ Department of Chemistry and Materials Engineering, Faculty of Chemistry, Materials and Bioengineering, Kansai University, Suita-shi, Osaka, 564-8680, Japan.

² Center for Nano Materials and Technology, Advanced Institute of Science and Technology, 1-1 Asahidai, Nomi-shi, Ishikawa, 923-1292, Japan.

* Corresponding author. Email: hkawa@kansai-u.ac.jp.

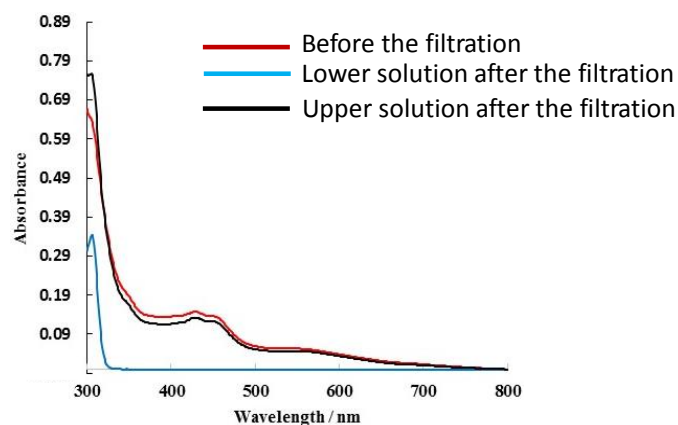


Fig.S1 UV-vis spectra of $\text{Ag}_7(\text{MBISA})_6\text{-QC}$ conjugate before and after the filtration.

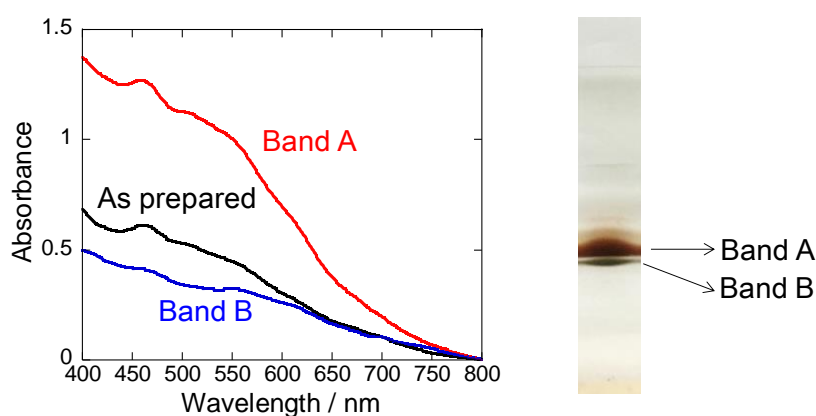


Fig.S2 UV-vis spectra of $\text{Ag}_7(\text{MBISA})_6$ NCs in an aqueous media for the as-prepared sample, band A, and band B after gel electrophoresis (shown on the right).

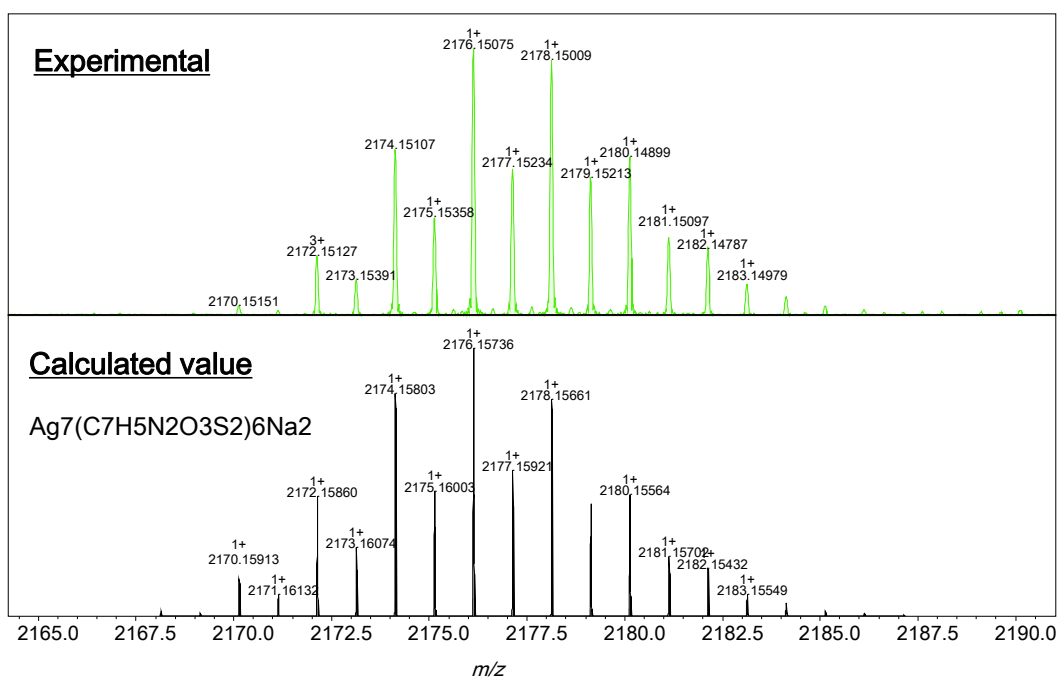


Fig.S3 ESI-mass spectra of $\text{Ag}_7(\text{MBISA})_6$ NCs.

Upper: experimental. Lower: calculated assuming the formula: $\text{Ag}_7(\text{C}_7\text{H}_5\text{N}_2\text{O}_3\text{S}_2)_6\text{Na}_2$.

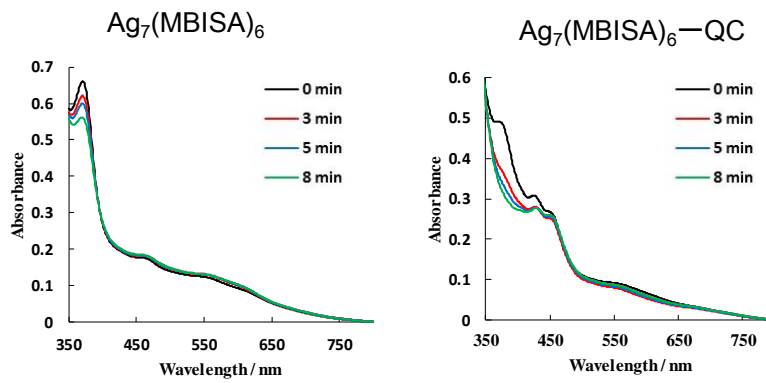


Fig.S4 UV-vis spectra of $\text{Ag}_7(\text{MBISA})_6$ NCs and $\text{Ag}_7(\text{MBISA})_6\text{-QC}$ conjugate during white LED light irradiation.

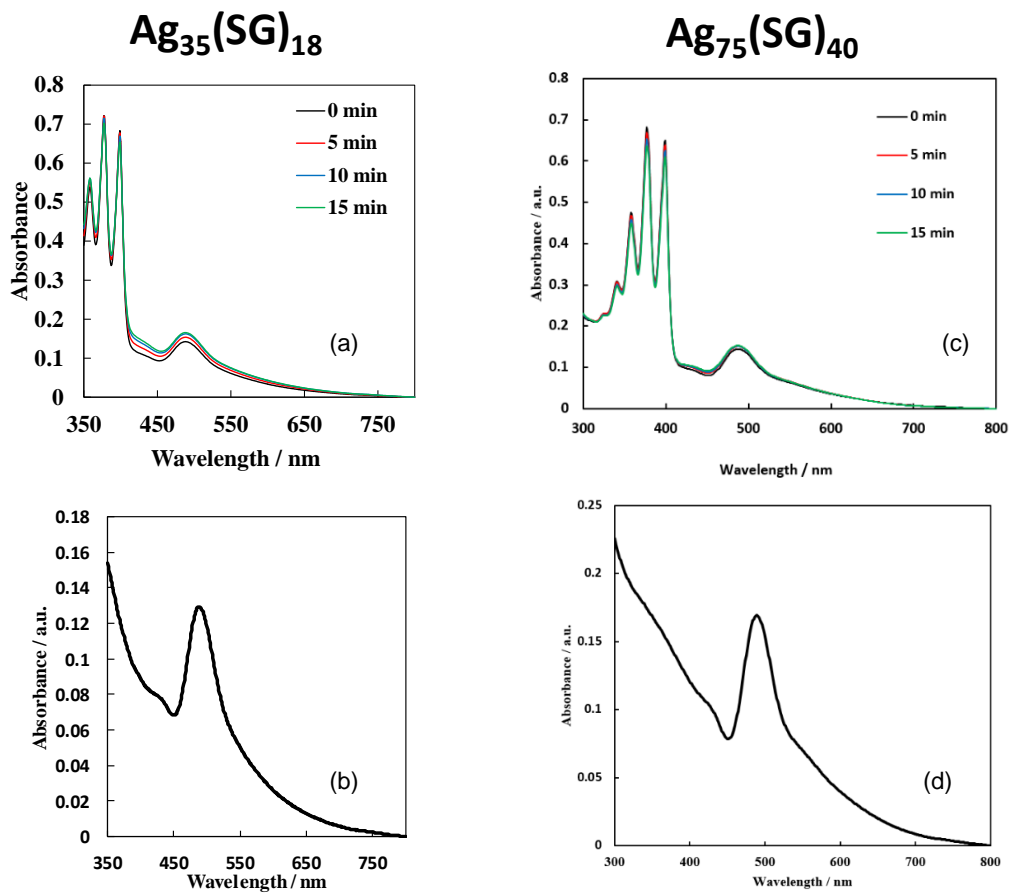


Fig.S5 (a, b) UV-vis spectra of ABDA in the presence of $\text{Ag}_{11}(\text{SG})_7$ NCs during white LED light irradiation and $\text{Ag}_{35}(\text{SG})_{18}$ NCs in an aqueous media; (c, d) UV-vis spectra of ABDA in the presence of $\text{Ag}_{75}(\text{SG})_{40}$ NCs during white LED light irradiation, and $\text{Ag}_{75}(\text{SG})_{40}$ NCs in an aqueous media.

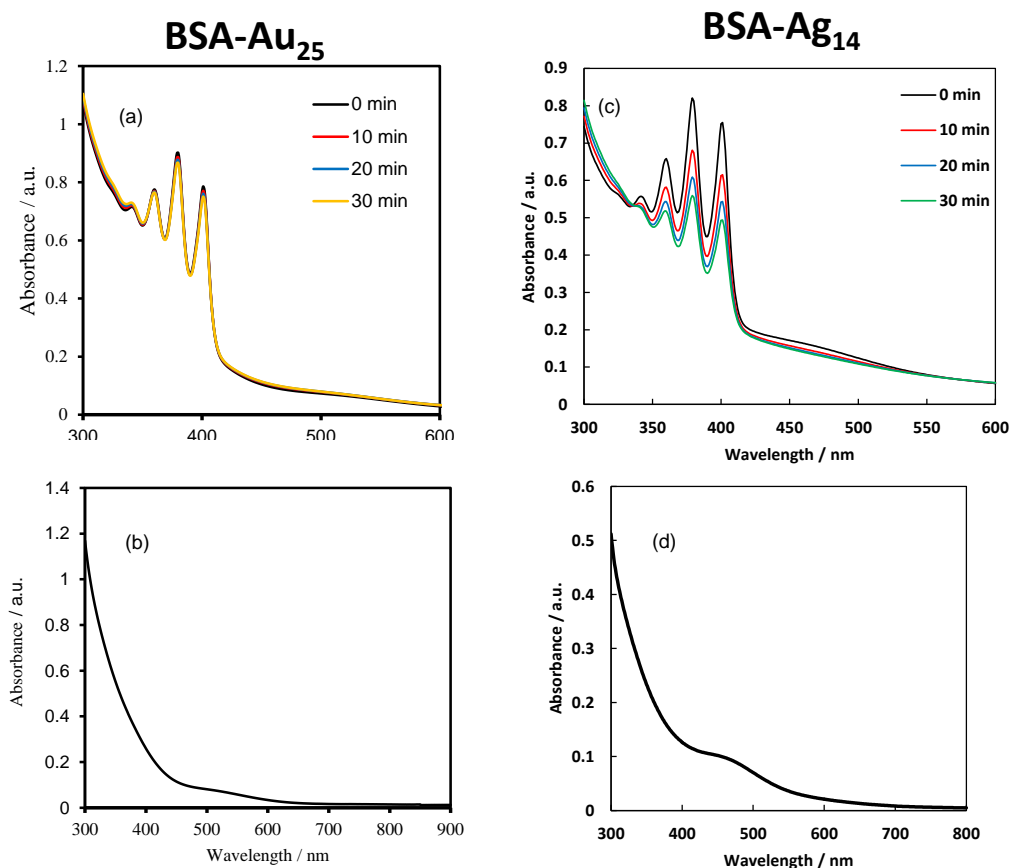


Fig.S6 (a, b) UV-vis spectra of ABDA in the presence of BSA-Au₂₅ NCs during white LED light irradiation and BSA-Au₂₅ NCs in an aqueous media; (c, d) UV-vis spectra of ABDA in the presence of BSA-Ag₁₄ NCs during white LED light irradiation and BSA-Ag₁₄ NCs in an aqueous media.

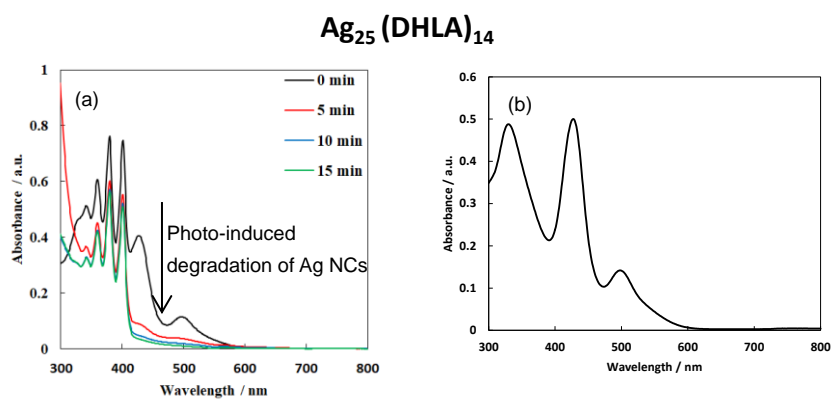


Fig.S7 (a, b) UV-vis spectra of ABDA in the presence of Ag₂₅(DHLA)₁₄ NCs during white LED light irradiation and Ag₂₅(DHLA)₁₄ NCs in an aqueous media.

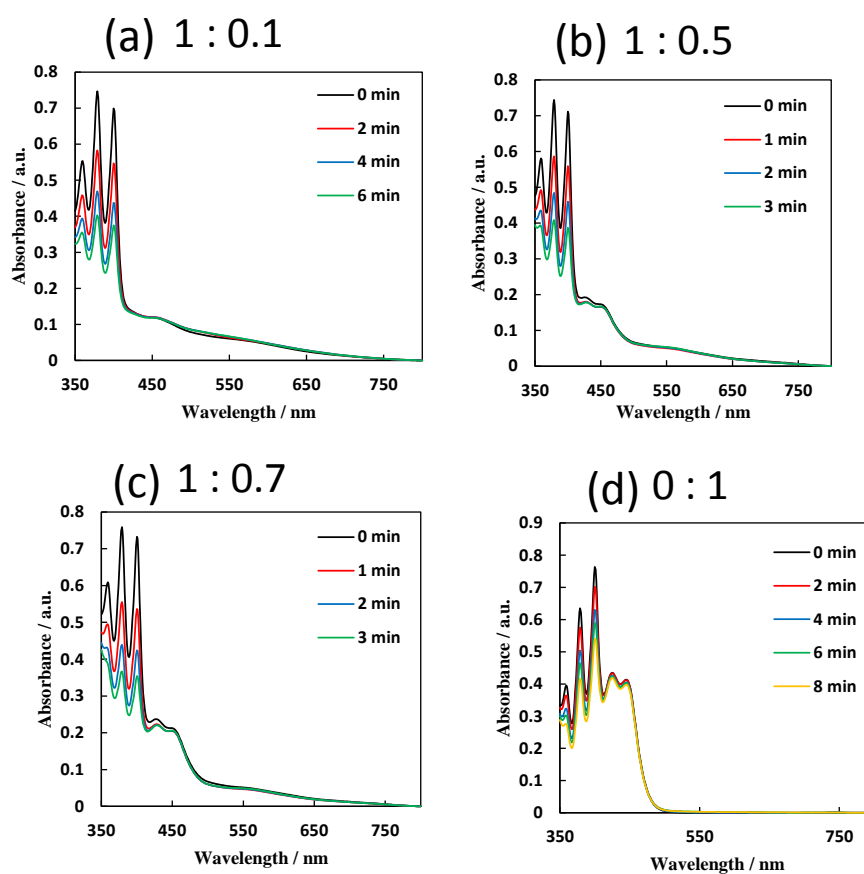


Fig.S8 UV-vis spectra of ABDA in the presence of $Ag_7(MBISA)_6$ -QC conjugates with different molar ratios of $Ag_7(MBISA)_6$ to QC or QC during white LED light irradiation.

The molar ratio of $Ag_7(MBISA)_6$ to QC is shown in the figure. (a) $Ag_7(MBISA)_6$: QC = 1: 0.1, (b) 1:0.5, (c) 1:0.7, and (d) 0:1. The ratio of 0:1 represents ABDA in the presence of only QC.

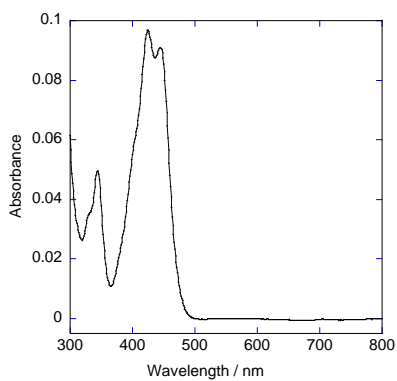


Fig.S9 UV-vis spectrum of aqueous quinacrine.