

Supplementary Materials: Photocatalytic Properties of g-C₃N₄–Supported on the SrAl₂O₄:Eu,Dy/SiO₂

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Table S1 and Table S2 show the raw data of rate constants with the error margins.

Table S1. Rate constants for UV-light photoactivity.

Photocatalyst	Intercept	Rate Constant	R-Square
SrAl ₂ O ₄ :Eu,Dy	0.0154 ± 0.012	0.00070 ± 0.0001	0.94861
g-C ₃ N ₄	−0.0092 ± 0.030	0.00273 ± 0.0002	0.97828
SrAl ₂ O ₄ :Eu,Dy/g-C ₃ N ₄	−0.1392 ± 0.115	0.01149 ± 0.0008	0.98159
SrAl ₂ O ₄ :Eu,Dy/0.005M SiO ₂ -g-C ₃ N ₄	−0.2882 ± 0.204	0.01242 ± 0.0014	0.95184
SrAl ₂ O ₄ :Eu,Dy/0.01M SiO ₂ -g-C ₃ N ₄	−0.2718 ± 0.241	0.01966 ± 0.0016	0.97278
SrAl ₂ O ₄ :Eu,Dy/0.02M SiO ₂ -g-C ₃ N ₄	−0.0944 ± 0.071	0.01036 ± 0.0005	0.99128
SrAl ₂ O ₄ :Eu,Dy /0.1M SiO ₂ -g-C ₃ N ₄	−0.0772 ± 0.076	0.01098 ± 0.0005	0.99116
SrAl ₂ O ₄ :Eu,Dy/0.2M SiO ₂ -g-C ₃ N ₄	−0.0160 ± 0.040	0.01134 ± 0.0003	0.99771

Table S2. Rate constants for visible light photoactivity.

Photocatalyst	Intercept	Rate Constant	R-Square
SrAl ₂ O ₄ :Eu,Dy	−0.0046 ± 0.007	0.00189 ± 0.0002	0.95914
g-C ₃ N ₄	0.0078 ± 0.020	0.01187 ± 0.0005	0.99199
SrAl ₂ O ₄ :Eu,Dy/g-C ₃ N ₄	−0.1122 ± 0.143	0.04039 ± 0.0039	0.96367
SrAl ₂ O ₄ :Eu,Dy/0.005M SiO ₂ -g-C ₃ N ₄	−0.0692 ± 0.090	0.03862 ± 0.0025	0.98409
SrAl ₂ O ₄ :Eu,Dy/0.01M SiO ₂ -g-C ₃ N ₄	−0.1657 ± 0.171	0.04721 ± 0.0047	0.9621
SrAl ₂ O ₄ :Eu,Dy/0.02M SiO ₂ -g-C ₃ N ₄	−0.0672 ± 0.076	0.02937 ± 0.0021	0.98055
SrAl ₂ O ₄ :Eu,Dy /0.1M SiO ₂ -g-C ₃ N ₄	−0.0514 ± 0.047	0.0288 ± 0.0013	0.99232
SrAl ₂ O ₄ :Eu,Dy/0.2M SiO ₂ -g-C ₃ N ₄	−0.1062 ± 0.094	0.02699 ± 0.0026	0.9649

Figure S1 shows the UV-light spectra utilized from the Sankyo Denki Co. Ltd catalogue (2013), Ultraviolet lamps.

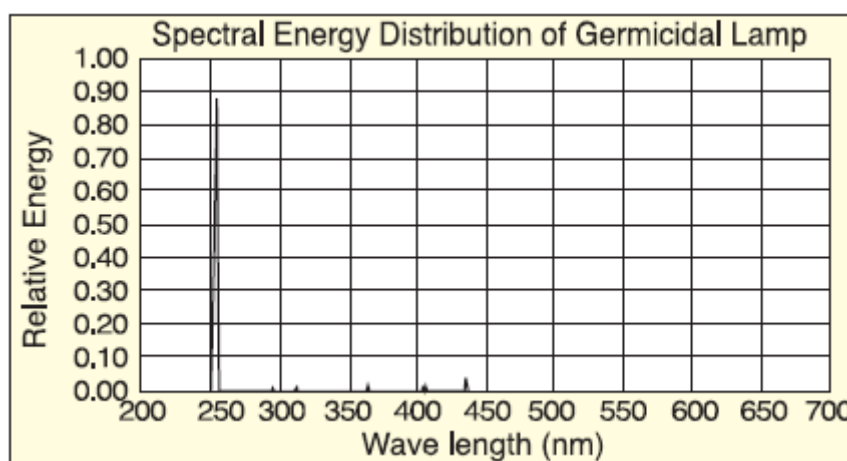


Figure S1. Spectra for UV-light.

Figure S2 shows the Xenon lamp spectra for Solsim 395.

Typical Calibrated Spectral Graph:

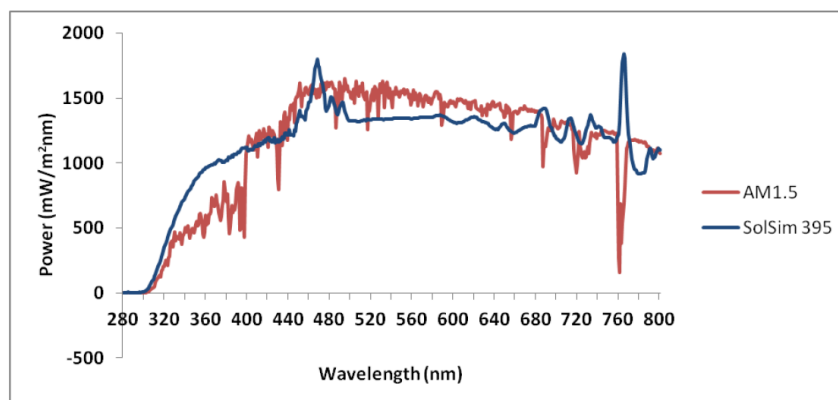


Figure S2. The Xe lamp spectra (Solsim 395).



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