

Supplementary Information:

**Evaluation of Organic Matter Contribution Using
Absorbance and Chromatographic Parameters in Lake
Paldang, Republic of Korea**

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Table S1 Correlation coefficients for water Quality factor, absorbance and chromatographic parameters in PD

PD	BOD	TOC	DOC	Chl-a	BOD/TOC	E2/E3	E2/E4	SR	UV ₂₅₄	BP	HS	BB	LMWN	SUVA
TOC	0.421*													
DOC	0.138	0.872**												
Chl-a	0.784**	0.625**	0.331											
BOD/TOC	0.854**	-0.081	-0.311	0.480*										
E2/E3	-0.034	-0.400	-0.376	-0.194	0.221									
E2/E4	0.133	0.100	-0.011	0.197	0.091	0.548**								
SR	0.011	-0.358	-0.217	-0.195	0.194	-0.309	-0.410							
UV ₂₅₄	-0.053	0.759**	0.765**	0.329	-0.444	-0.496	-0.084	-0.186						
BP	0.272	-0.293	-0.207	-0.176	0.485**	0.088	-0.156	0.575**	-0.448					
HS	0.172	0.763**	0.816**	0.316	-0.187	-0.445	-0.106	-0.024	0.800**	0.017				
BB	0.295	0.795**	0.762**	0.485**	-0.088	-0.347	-0.008	-0.227	0.810**	-0.076	0.816**			
LMWN	0.046	0.711**	0.645**	0.447**	-0.372	-0.374	0.109	-0.469	0.827**	-0.557	0.607**	0.775**		
SUVA	-0.077	0.686**	0.568**	0.304	-0.459	-0.240	0.052	-0.665	0.770**	-0.718	0.458**	0.607**	0.806*	

p*-value<0.05, *p*-value<0.01

Table S2 Correlation coefficients for water Quality factor, absorbance and chromatographic parameters in SB

SB	BOD	TOC	DOC	Chl-a	BOD/TOC	E2/E3	E2/E4	SR	UV ₂₅₄	BP	HS	BB	LMWN	SUVA
TOC	0.604**													
DOC	0.215	0.786**												
Chl-a	0.585**	0.678**	0.549**											
BOD/TOC	0.690**	-0.144	-0.383	0.126										
E2/E3	-0.058	-0.475	-0.613	-0.195	0.340									
E2/E4	-0.246	-0.113	-0.126	-0.141	-0.219	0.524**								
SR	0.270	0.213	0.154	0.075	0.152	-0.677	-0.475							
UV ₂₅₄	-0.131	0.455*	0.821**	0.244	-0.508	-0.578	-0.191	-0.064						
BP	0.638**	0.104	-0.217	0.012	0.691**	-0.086	-0.285	0.630**	-0.520					
HS	0.475*	0.727**	0.768**	0.446*	-0.007	-0.632	-0.416	0.390*	0.592**	0.132				
BB	0.127	0.459*	0.691**	0.334	-0.181	-0.261	-0.109	-0.170	0.756**	-0.259	0.503*			
LMWN	-0.242	0.382	0.618**	0.336	-0.640	-0.205	0.053	-0.275	0.712**	-0.683	0.262	0.635**		
SUVA	-0.430	0.112	0.495**	0.078	-0.608	-0.070	0.144	-0.598	0.741**	-0.840	0.143	0.483*	0.701**	

p-value*<0.05, *p-value*<0.01

Table S3 Correlation coefficients for water Quality factor, absorbance and chromatographic parameters in GS

GS	BOD	TOC	DOC	Chl-a	BOD/TOC	E2/E3	E2/E4	SR	UV ₂₅₄	BP	HS	BB	LMWN	SUVA
TOC	0.064													
DOC	-0.110	0.889**												
Chl-a	0.851**	0.065	-0.182											
BOD/TOC	0.926**	-0.286	-0.415	0.747**										
E2/E3	0.344	-0.569	-0.599	0.374	0.521**									
E2/E4	-0.073	-0.261	-0.244	0.027	-0.011	0.652**								
SR	0.299	-0.104	-0.052	0.152	0.333	-0.311	-0.516							
UV ₂₅₄	-0.429	0.690**	0.745**	-0.490	-0.614	-0.717	-0.268	-0.249						
BP	0.782**	-0.039	-0.130	0.614**	0.757**	0.204	-0.155	0.583**	-0.473					
HS	-0.019	0.781**	0.815**	-0.194	-0.259	-0.552	-0.272	0.038	0.785**	-0.046				
BB	-0.129	0.588**	0.630**	-0.265	-0.274	-0.479	-0.166	-0.219	0.842**	-0.163	0.680**			
LMWN	-0.507	0.392*	0.476*	-0.519	-0.595	-0.403	-0.012	-0.539	0.826**	-0.656	0.481*	0.774**		
SUVA	-0.619	0.539**	0.539**	-0.580	-0.757	-0.622	-0.180	-0.447	0.846**	-0.684	0.456*	0.597**	0.759**	

p*-value<0.05, *p*-value<0.01

Table S4 Correlation coefficients for water Quality factor, absorbance and chromatographic parameters in KK

KK	BOD	TOC	DOC	Chl-a	BOD/TOC	E2/E3	E2/E4	SR	UV ₂₅₄	BP	HS	BB	LMWN	SUVA
TOC	0.668**													
DOC	0.285	0.829**												
Chl-a	0.827**	0.597**	0.284											
BOD/TOC	0.952**	0.443*	0.041	0.788**										
E2/E3	0.001	-0.370	-0.406	0.026	0.068									
E2/E4	0.542**	0.040	-0.185	0.562**	0.555**	0.873**								
SR	0.064	0.491**	0.602**	0.050	-0.047	-0.776	-0.587							
UV ₂₅₄	0.058	0.370	0.280	0.067	-0.005	-0.611	-0.448	0.471*						
BP	0.562**	0.751**	0.736**	0.376*	0.407*	-0.299	0.053	0.546**	0.090					
HS	0.427*	0.811**	0.907**	0.360	0.221	-0.417	-0.102	0.652**	0.280	0.882**				
BB	0.356	0.808**	0.871**	0.326	0.137	-0.521	-0.226	0.660**	0.375*	0.771**	0.878**			
LMWN	0.187	0.582**	0.563**	0.353	0.032	-0.361	-0.159	0.331	0.685**	0.225	0.424*	0.606**		
SUVA	-0.202	-0.015	-0.029	-0.295	-0.245	-0.405	-0.401	0.050	0.487**	-0.336	-0.098	-0.037	0.178	

p*-value<0.05, *p*-value<0.01