

## **Supporting Information**

### **Laser-Induced Fluorescence Coupled with Solid-Phase Microextraction for *In-situ* Determination of Bioavailable PAHs in Sediment Pore Water**

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Seven pages.

Six figures.

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Figure S1: Relative distribution of individual PAHs in sediment samples at the five sites.

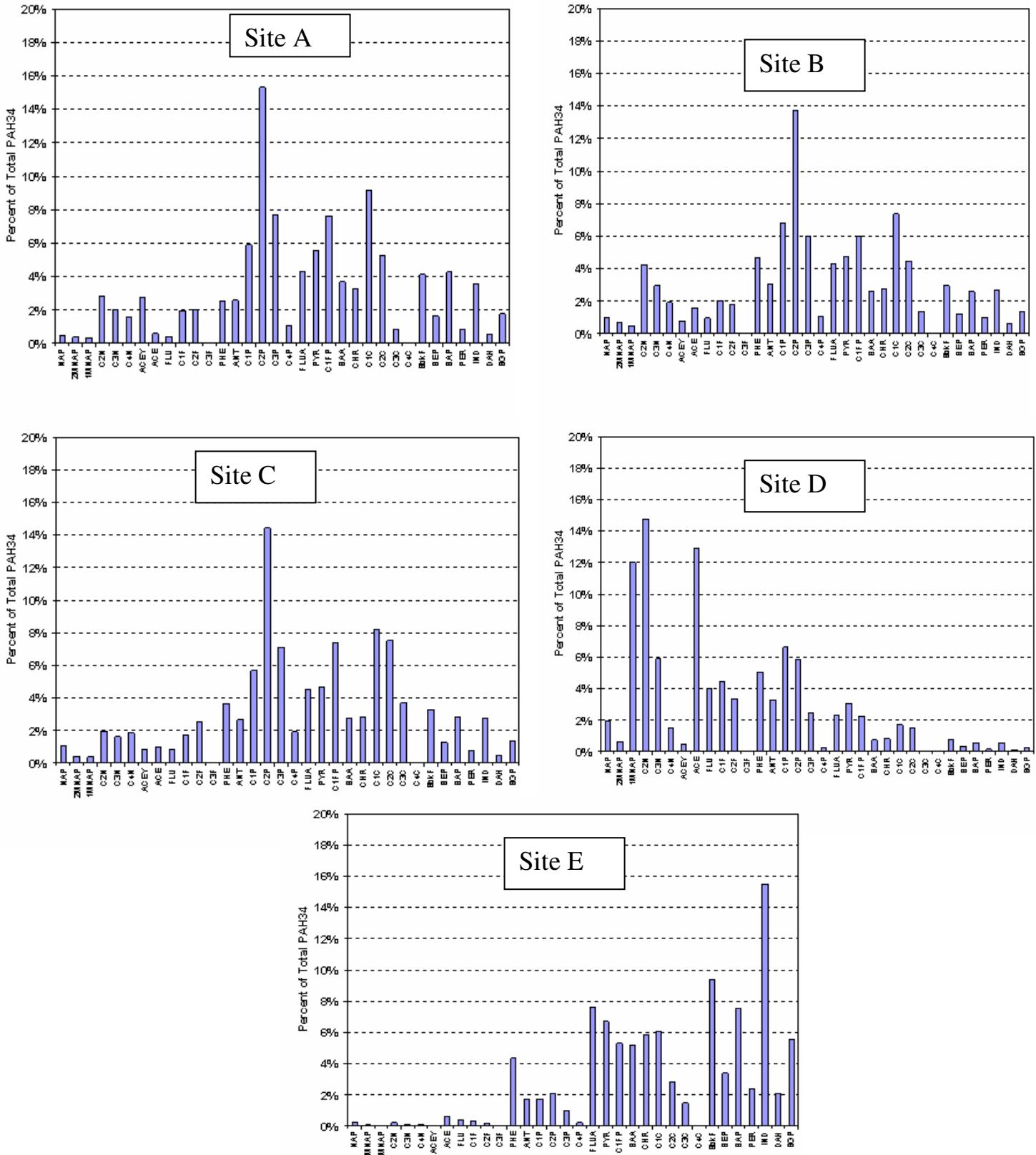


Figure S2: Effect of sample volume on SPME-LIF response after 18 and 48 hours.

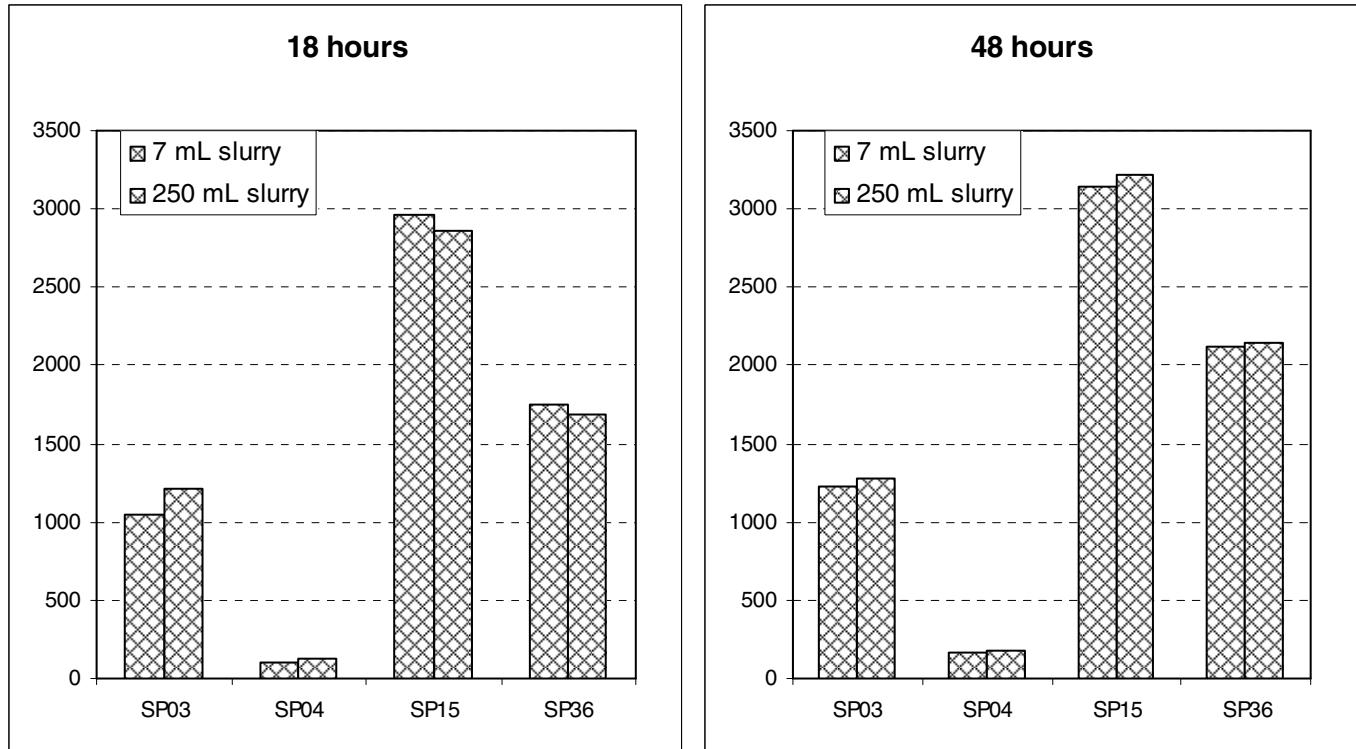


Figure S3: Direct LIF response for pure water (A) and water with 9 mg/L of fulvic acid (B) compared to the SPME-LIF response (18 hour) for pure water (C) and 9 mg/L fulvic acid (D).

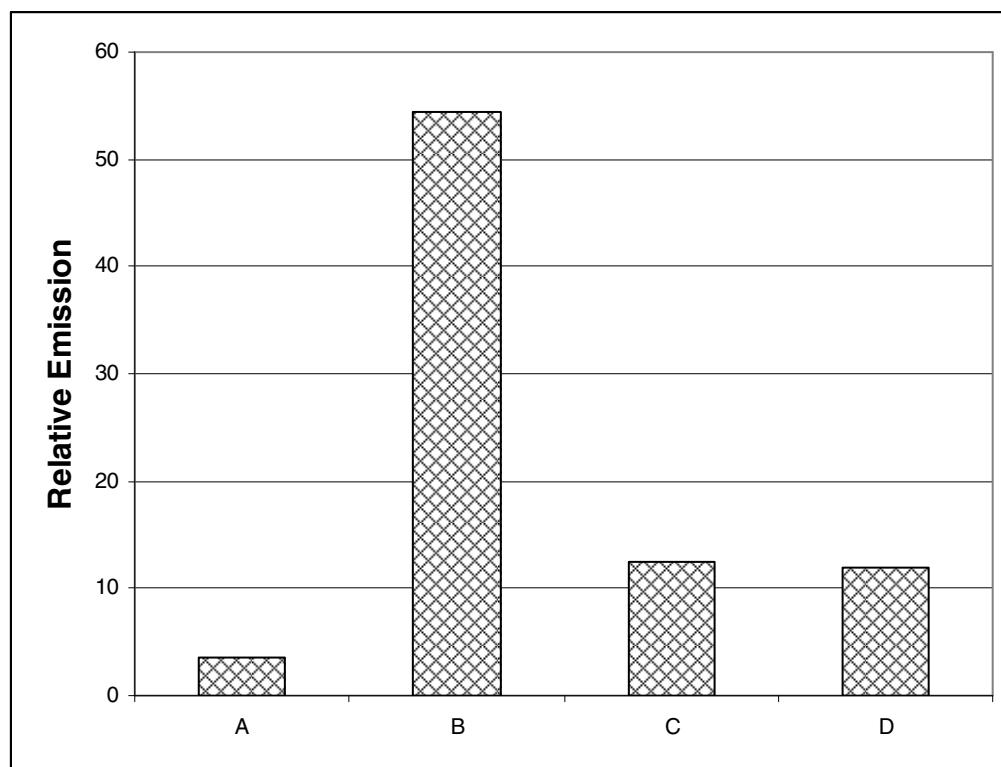


Figure S4: Spearman rank correlations for SPME-LIF responses compared to total pore water toxic units (top), total pore water PAH-34 concentrations (middle), and total sediment PAH-34 concentrations (Sites A, B, C, and E).

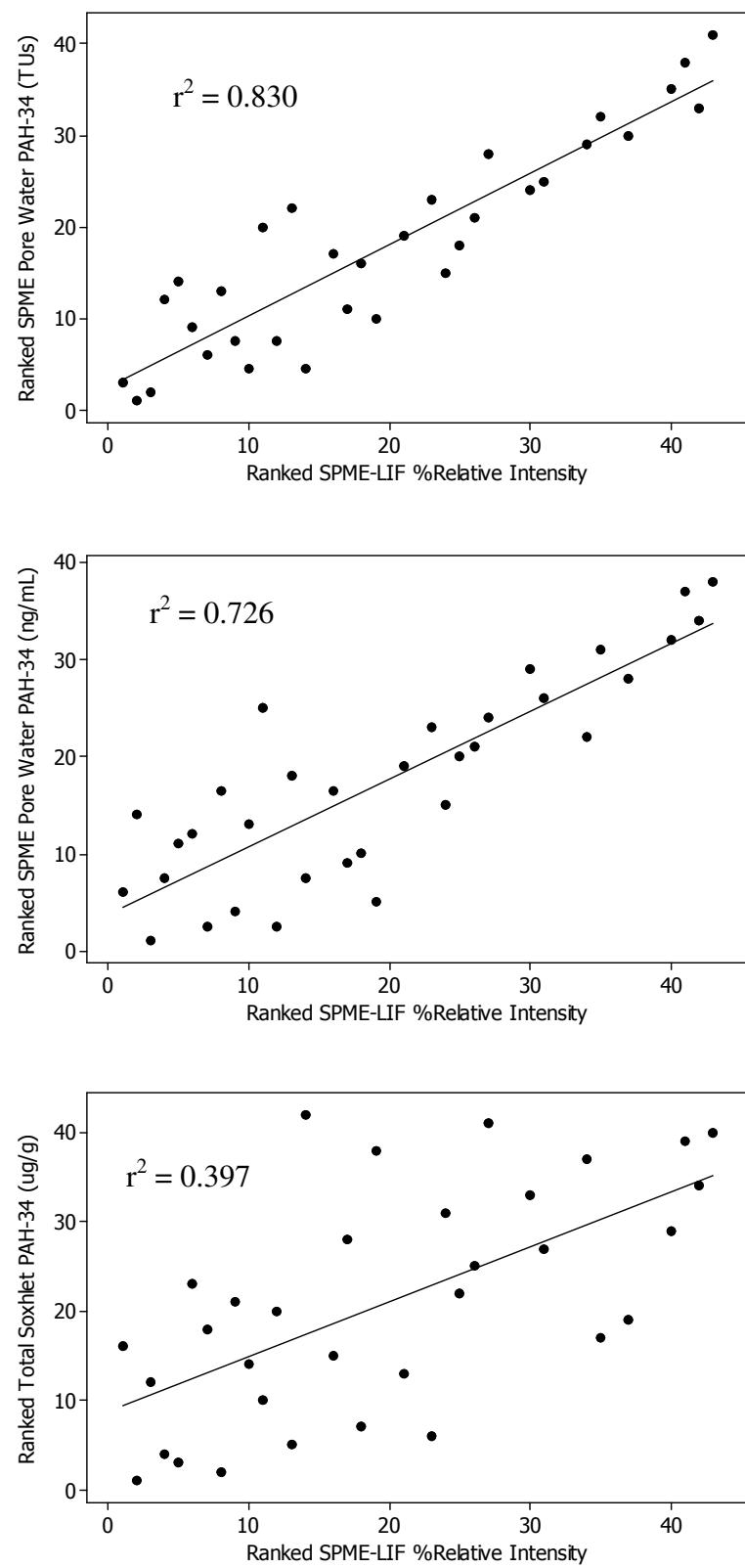


Figure S5: Comparison of SPME-LIF response with total pore water PAH-34 toxic units (top) and total pore water PAH-34 concentrations (bottom) for the 32 sediments from sites A, B, C, and E, and the 11 sediments from site D.

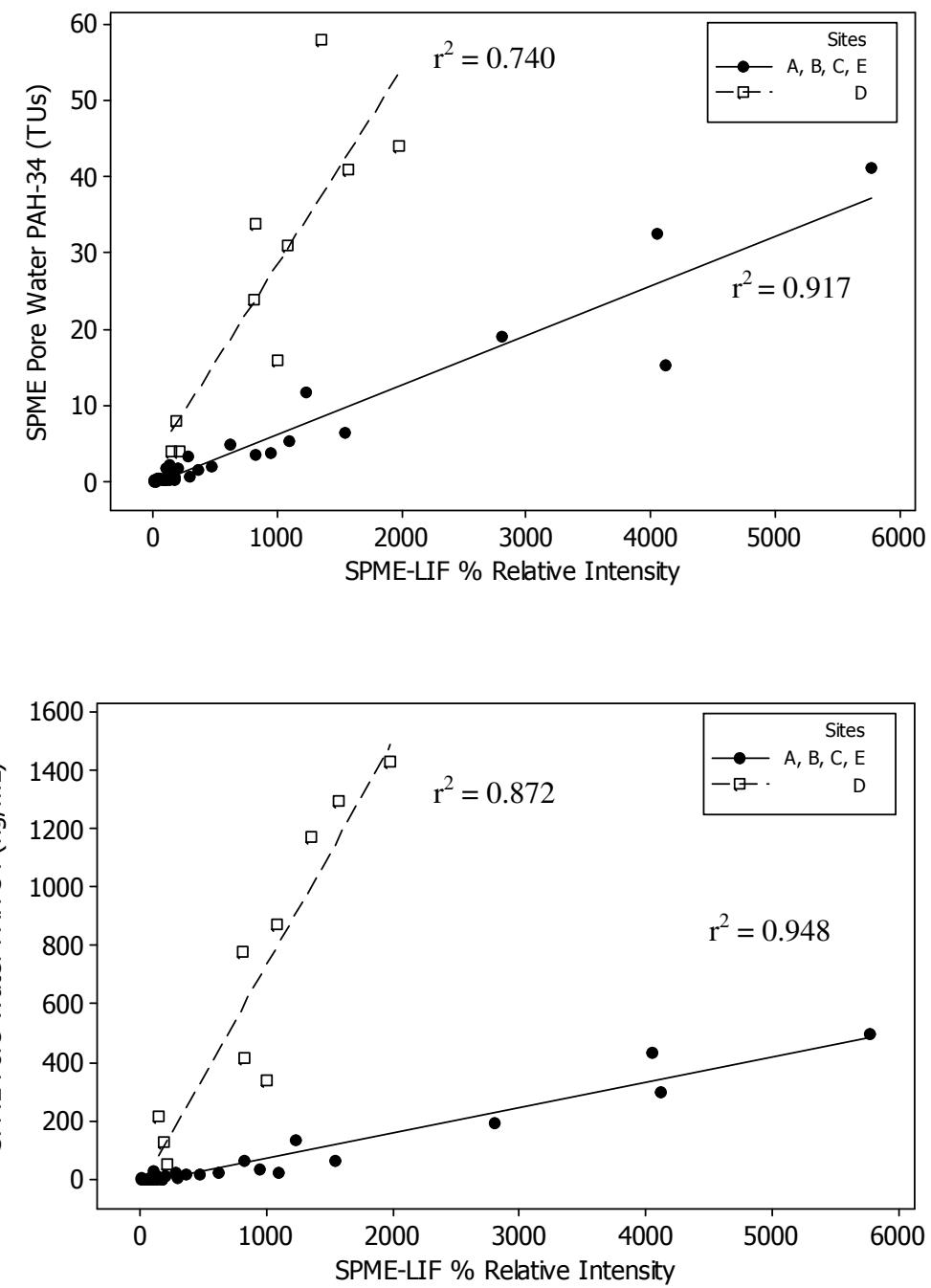


Figure S6: Comparison of SPME-LIF emission at 350 nm to the total PAH-34 pore water toxic units (top) and total pore water PAH-34 concentrations (bottom) for all sites (43 sediments).

