

Supporting Information: Application of a Solid Ceramic Membrane for Monitoring Volatile Organic Compounds in Industrial Wastewater

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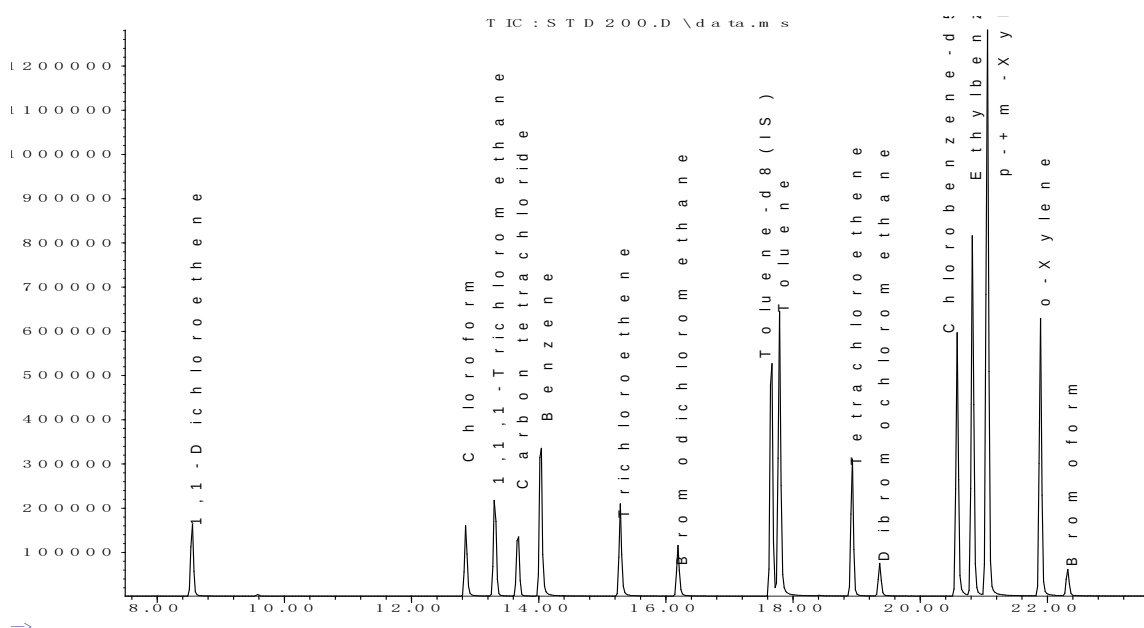


Figure S1. HS-GC/MS total ion chromatogram of VOCs at 200 µg/L.

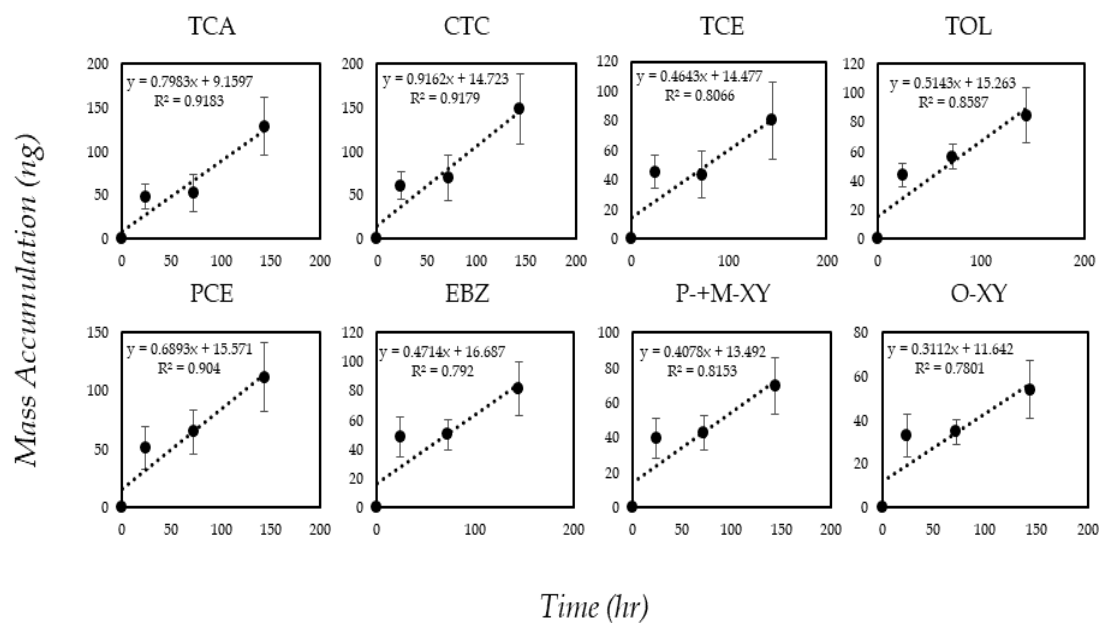


Figure S2. The mass accumulation of VOCs with time, representing the linear kinetics of the solid ceramic dosimeter at a VOC concentration of $2.53 (\pm 0.69) \mu\text{g/L}$.

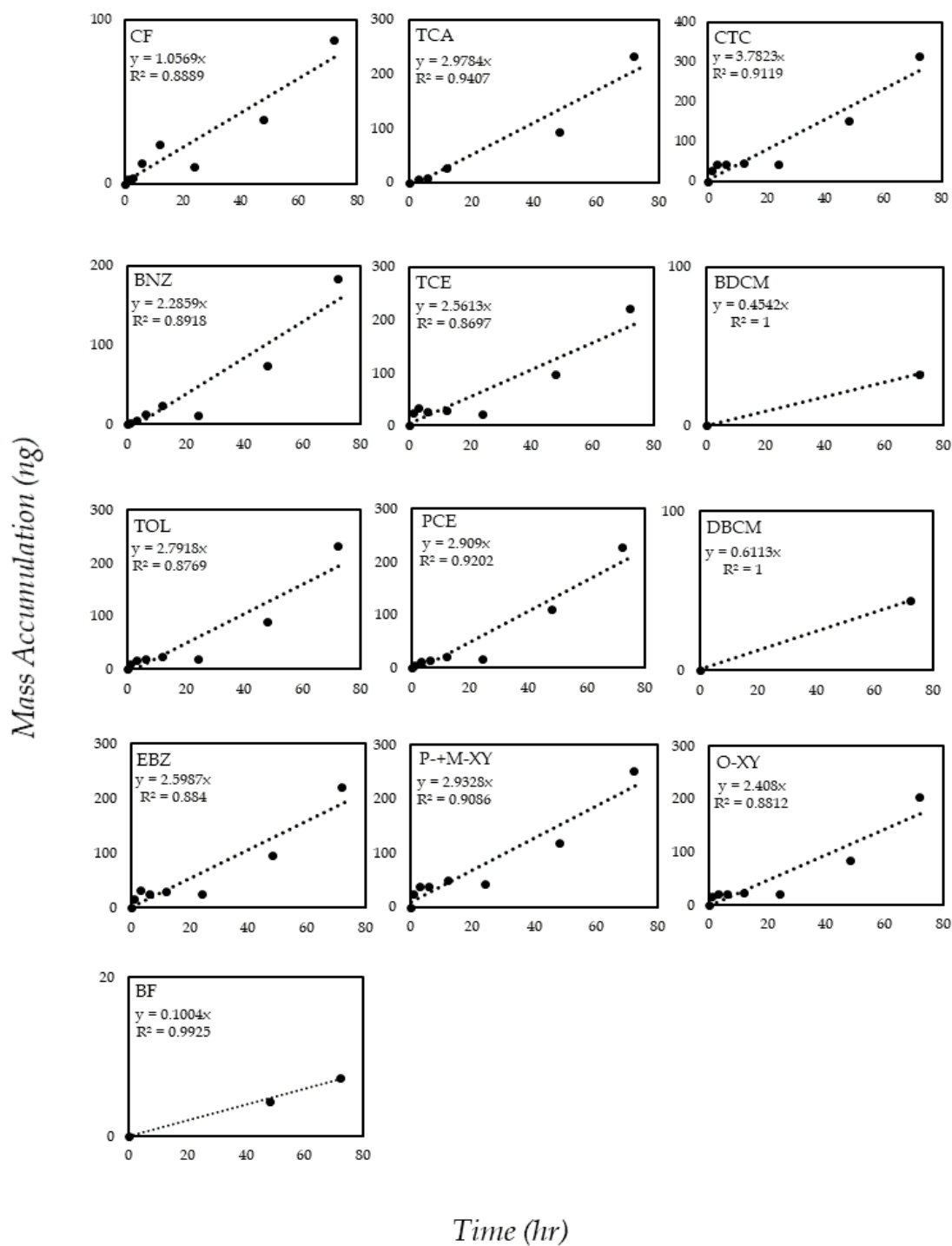


Figure S3. The mass accumulation of VOCs with time, representing the linear kinetics of the solid ceramic dosimeter at a VOC concentration of $8.21 (\pm 1.13) \mu\text{g/L}$.

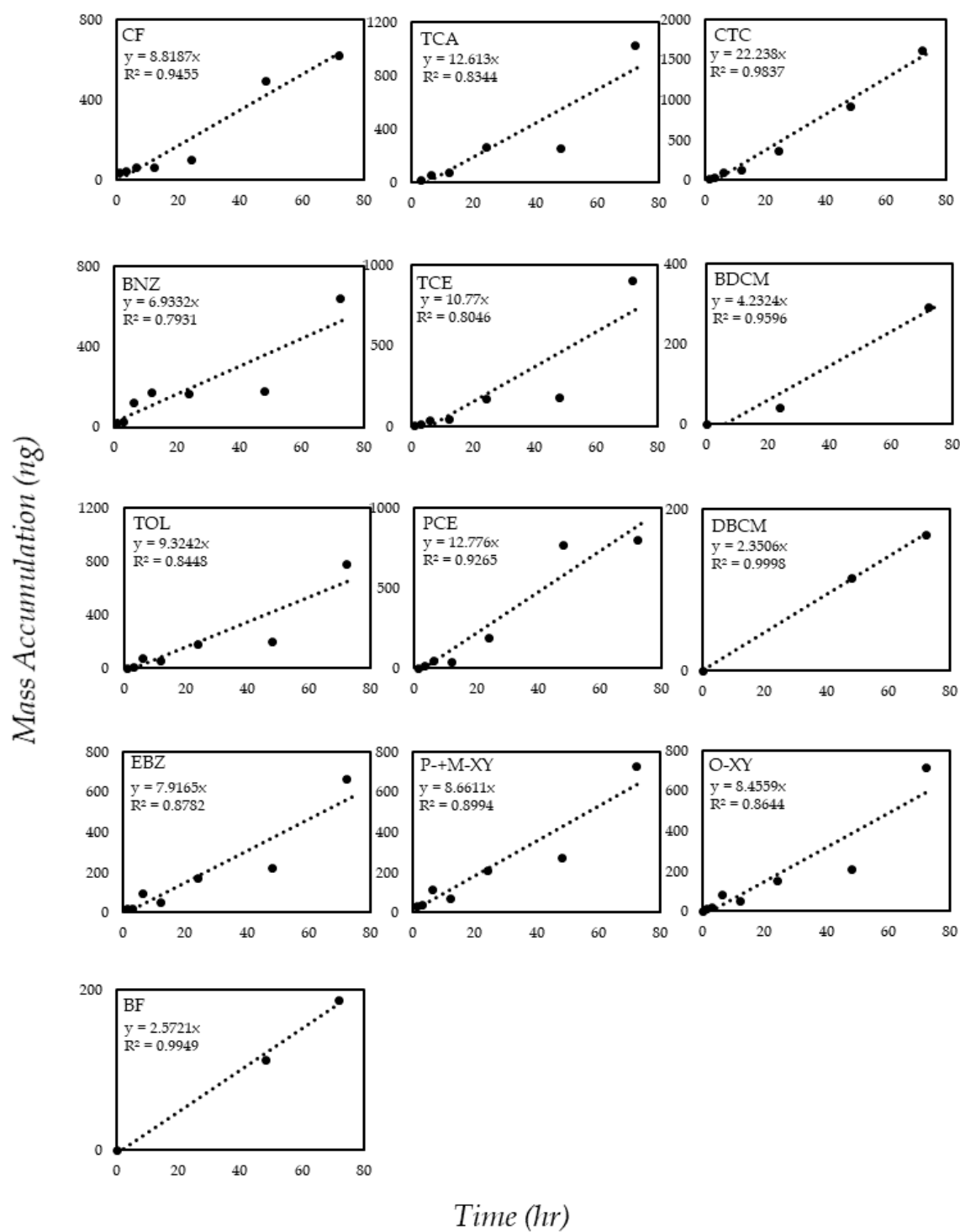


Figure S4. The mass accumulation of VOCs with time, representing the linear kinetics of the solid ceramic dosimeter at a VOC concentration of 43.11 (± 6.72) $\mu\text{g/L}$.

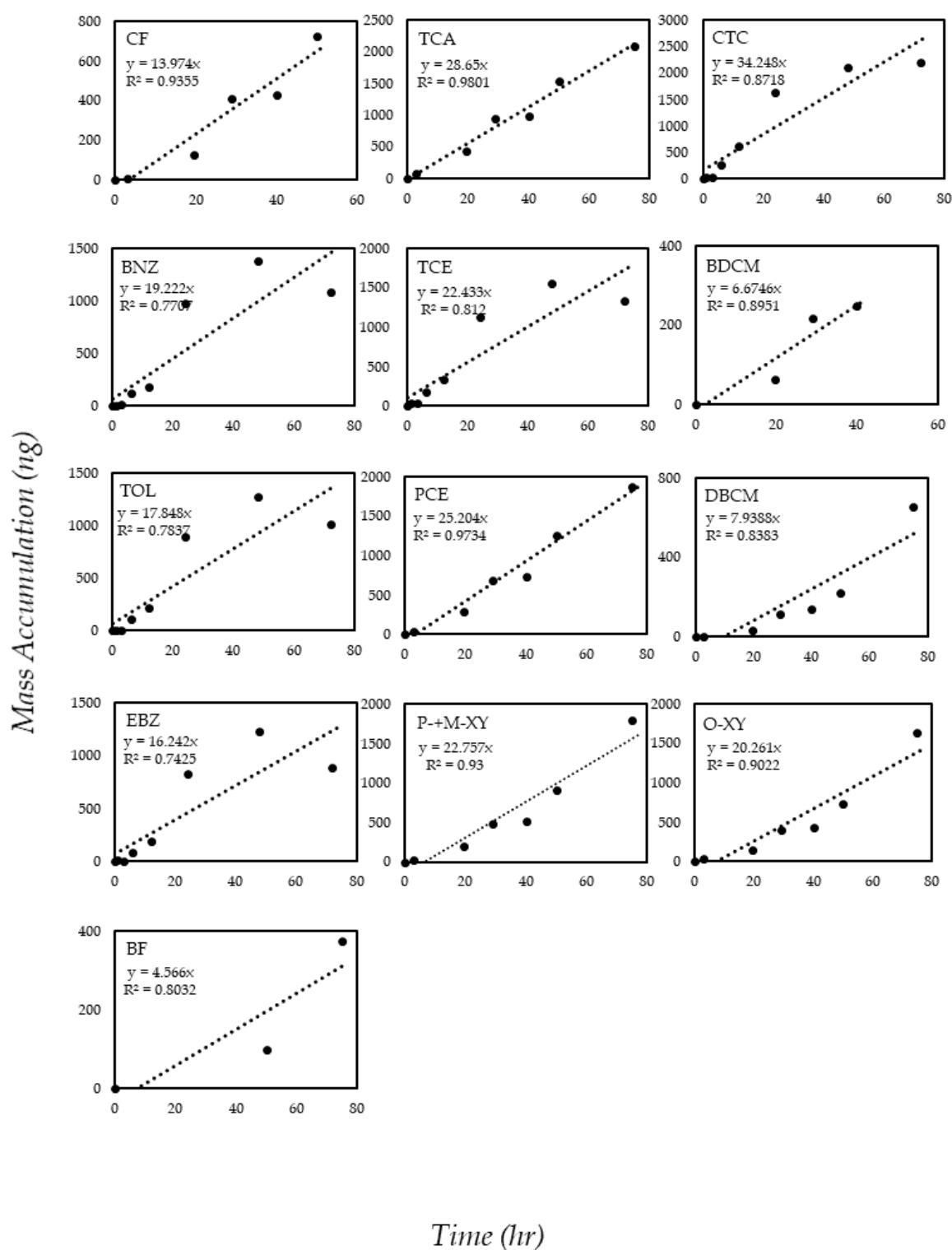


Figure S5. The mass accumulation of VOCs with time, representing the linear kinetics of $81.36 (\pm 15.36)$ $\mu\text{g/L}$.

Table S1. Retention time (RT) and SRM transition for VOCs, GC-MS.

Compound	RT (min)	Primary Ion (Da)	GC-MS				
			Spiking Level (ug/L)	MDL (ug/L)	LOQ (ug/L)	RSD (%)	Recovery (%)
CF	12.9	83	100	84.17	267.81	25.43	105.32
TCA	13.36	97	20	8.9	28.3	13.49	104.89
CTC	13.71	117	100	13.27	42.22	4.85	87.07
BNZ	14.07	78	50	23.79	75.71	13.35	113.43
TCE	15.32	95	100	19.27	61.31	6.43	95.28
BDCM	16.42	83	20	9.41	29.93	14.98	99.87
TOL	17.83	92	20	8.33	26.5	12.52	105.87
PCE	18.98	164	20	9.61	30.59	15.37	99.5
DBCM	19.42	129	20	8.78	27.95	14.54	96.1
EBZ	20.87	91	20	5.88	18.72	9.36	99.96
PXY &MXY	21.12	91	20	5.43	17.28	8.58	100.67
OXY	21.94	91	20	7.15	22.75	11.51	98.82
BF	22.39	173	20	8.06	25.65	13.37	95.94



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