

Supplementary Materials: Reduced Graphene Oxide-Metalloporphyrin Sensors for Human Breath Screening

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Figure S1: Dimensions of the interdigitated electrode

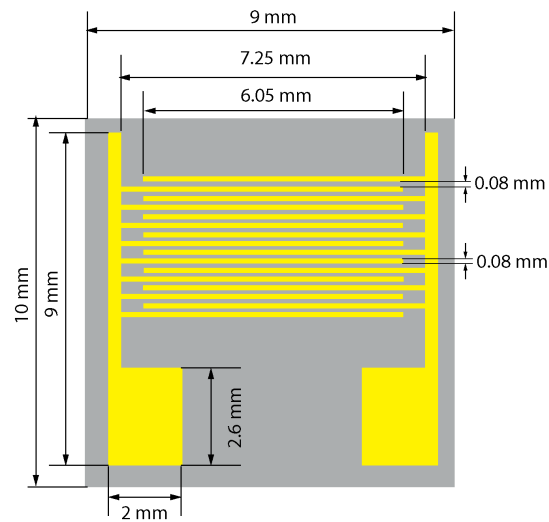


Table S1: PCA weights

	PC1	PC2	PC3
R _{norm} (MnTPP)	0.3658	0.0625	0.0292
R _{norm} (ZnTPP)	0.3616	-0.2565	0.3614
R _{norm} (FeTPP)	0.3448	0.4887	-0.0246
R _{norm} (CoTPP)	0.3433	-0.4938	-0.2439
Area (MnTPP)	0.3633	0.2234	-0.2394
Area (ZnTPP)	0.3545	-0.1787	0.6808
Area (FeTPP)	0.3445	0.4998	-0.0483
Area (CoTPP)	0.3499	-0.3404	-0.5341

Figure S2: F1-score results of bootstrapped samples for (a) acetone, (b) isopropanol, (c) ammonia, and (d) carbon monoxide classification

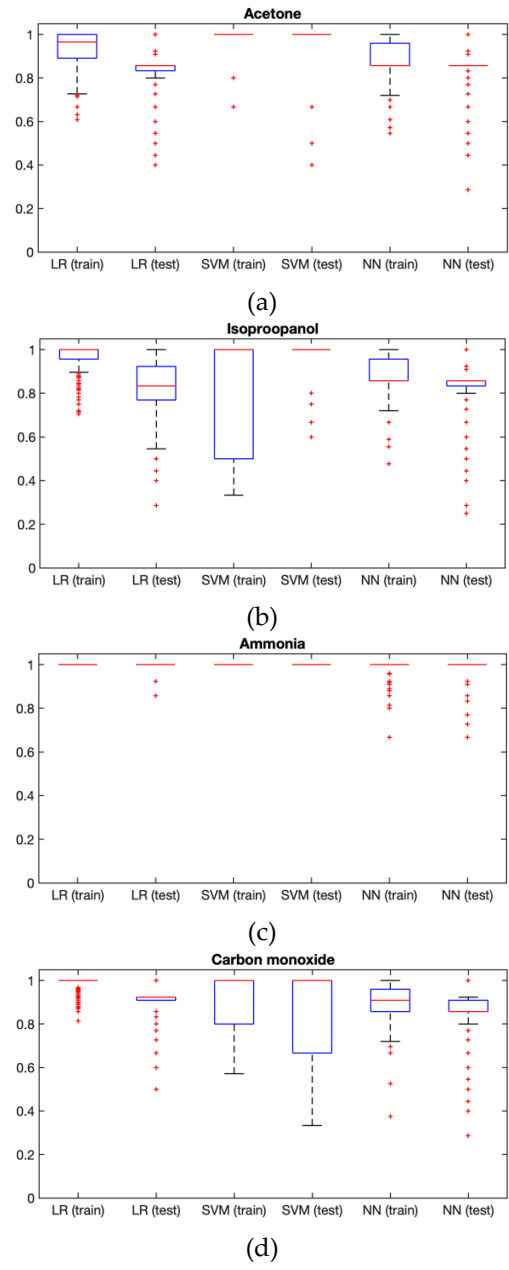


Table S2: R_{norm} [%] of four different RGO-metalloporphyrin films at different ammonia concentrations

Ammonia concentration [ppm]	MnTPP	ZnTPP	FeTPP	CoTPP
0	0.000294	0.00993	0.00809	0.0172
0	0.00197	0.00257	0.00384	0.000598
0	-0.000681	0.00538	0.0148	0.0175
0	0.00807	0.00472	0.0102	0.00726
0	0.0124	0.000461	0.00653	0.00292
0	0.0188	0.00599	0.00383	0.00362
1	0.0568	0.0399	0.102	0.137
1	0.128	0.0647	0.155	0.0770
1	0.129	0.0479	0.153	0.119
5	0.244	0.268	0.372	0.235
5	0.331	0.233	0.635	0.205
5	0.273	0.242	0.535	0.124
5	0.419	0.403	0.506	0.306
5	0.314	0.413	0.272	0.364
5	0.305	0.350	0.464	0.214
10	0.509	0.666	0.806	0.416
10	0.516	0.653	0.767	0.305
10	0.385	0.488	0.670	0.306