

Table S1 Comparison between detection of lidocaine using different methods.

Material	Method	Linear range	Detection limit	References
		(μM)	(nM)	
luminol-SiNPs/GCE	ECL	0.5-100	92.5	33
SA-DLLME-FASS	CE	0.05–1	10	34
N-CDs	Fluorescent	185.0-1295.0	54000	35
HF-LLLME	HPLC	0.2-8.5	42.6	36
Fe ₃ O ₄ @SiO ₂ -C ₁₈ nanoparticles	HPLC	0.2-10.6	42.6	37
3D GPE	ECL	0.01-10 50-10000	7.8	38
VMSE/FTO	ECL	0.01-50	8	our work

luminol-SiNPs, luminol-doped silica nanoparticles; GCE, glassy carbon electrode; SA-DLLME-FASS, Surfactant-assisted-dispersive liquid-liquid microextraction-field-amplified sample stacking; CE, capillary electrophoresis; N-CDs, N doped carbon dots; HF-LLLME, hollow fiber liquid-liquid-liquid microextraction; HPLC, high-performance liquid chromatography; Fe₃O₄@SiO₂-C₁₈, C18-functionalized magnetic silica nanoparticles; 3D GPE, 3D graphene paper electrode.