Supporting Information

A Novel Liquid Chromatography Detector based Dielectric Barrier Discharge Molecular Emission Spectrometer with Online Microwave-Assisted Hydrolysis for Determination of Dithiocarbamates

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1. Emission spectra of the different discharge gas.

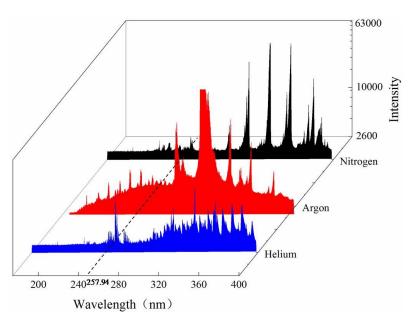


Figure S1. Emission spectra of the different discharge gas. Experimental conditions: discharge voltage, 2.6 kV; discharge gas flow rate, 300 mL min⁻¹.

2. Hydrolysis efficiency of CS_2 conversion from five kinds of DTCs.

Table S1. Hydrolysis efficiency of CS_2 conversion from five kinds of DTCs (n = 3).

Fungicide	Added (mg)	Found (mg)	Measured yield (%)	Theoretical yield (%)	Hydrolysis efficiency (%)
mancozeb	1.00	0.483±0.027	48.3±2.7	56.2	85.9 ±4.8
thiram	1.00	0.528±0.048	52.8±4.8	63.2	83.5 ± 7.6
zineb	1.00	0.491±0.045	49.1±4.5	55.0	89.3 ±8.2
propineb	1.00	0.545±0.036	54.5±3.6	52.5	104±6.9
metriam	1.00	0.525±0.039	52.5±3.9	55.9	93.9 ± 7.0

3. Analytical Characteristics of the Proposed Method with Direct Injection.

Table S2. Analytical Characteristics of the Proposed Method with Direct Injection

analyte	range (μg mL ⁻¹) ^a	\mathbb{R}^2	RSD(%, n=6)	LOD (µg mL ⁻¹)
mancozeb	1 - 180	0.997	3.2	0.10
thiram	2 - 150	0.990	4.7	0.20
zineb	1 - 180	0.991	1.8	0.05
propineb	0.5 - 200	0.994	2.7	0.02
metriam	1 - 150	0.993	4.1	0.30