Supporting Information for *Reaction Chemistry & Engineering*

Continuous flow synthesis of the iodination agent 1,3-diiodo-5,5-dimethyl-imidazolidine-2,4-dione telescoped with semi-continuous product isolation

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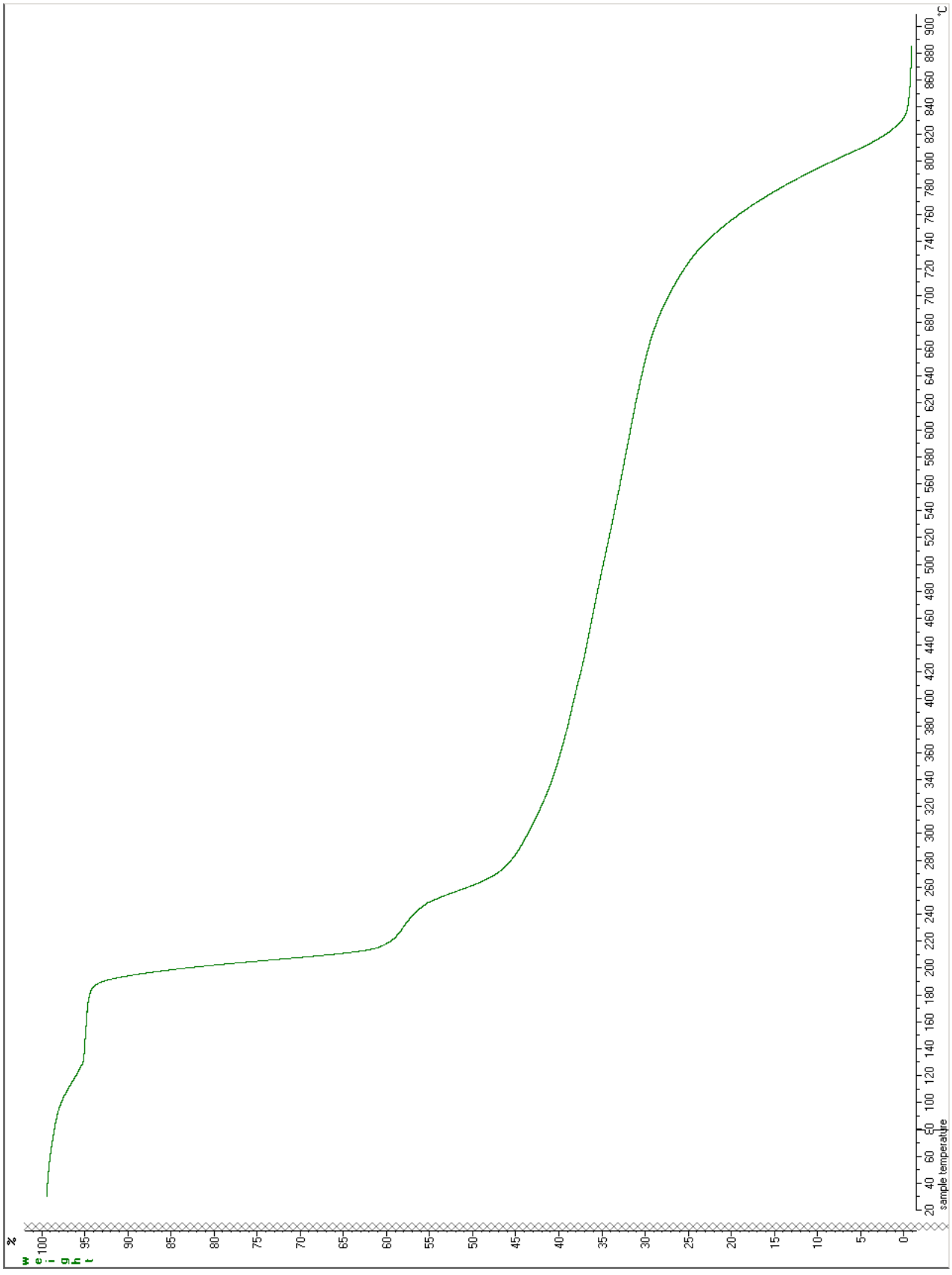
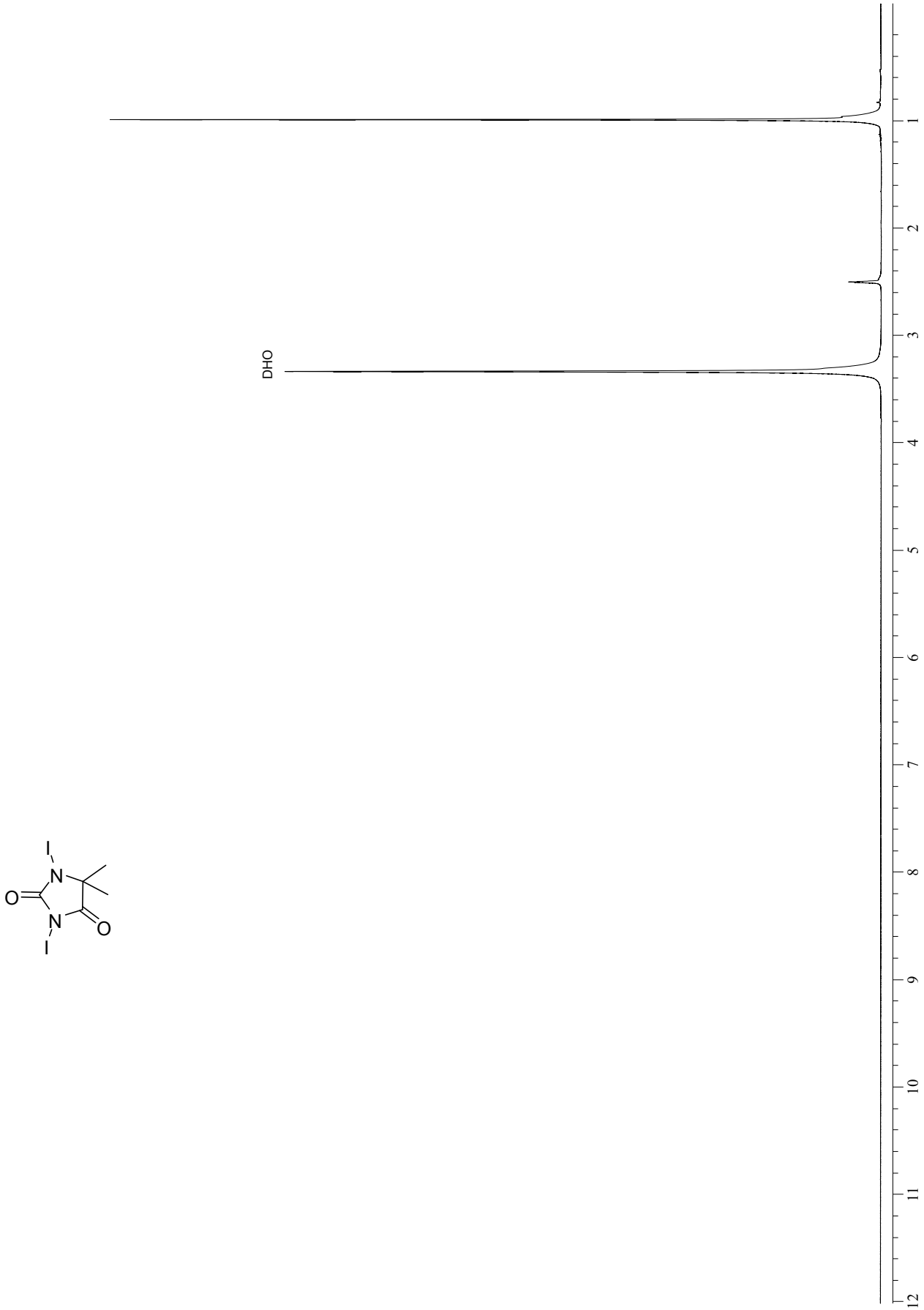
TGA of 1,3-Diiodo-5,5-dimethylimidazolidine-2,4-dione

Thass TGA XP-10, Gravimetric Sensitivity: 4700.4 units/mg
Method: 2 steps.
1: Iso at 27.9°C for 10 min, Sample period: 0.5s
2: Scan from 27.9 to 900°C at 5°C/min, Sample period: 0.5s
(These data are given in the "Information" menu of the TGA file editor)



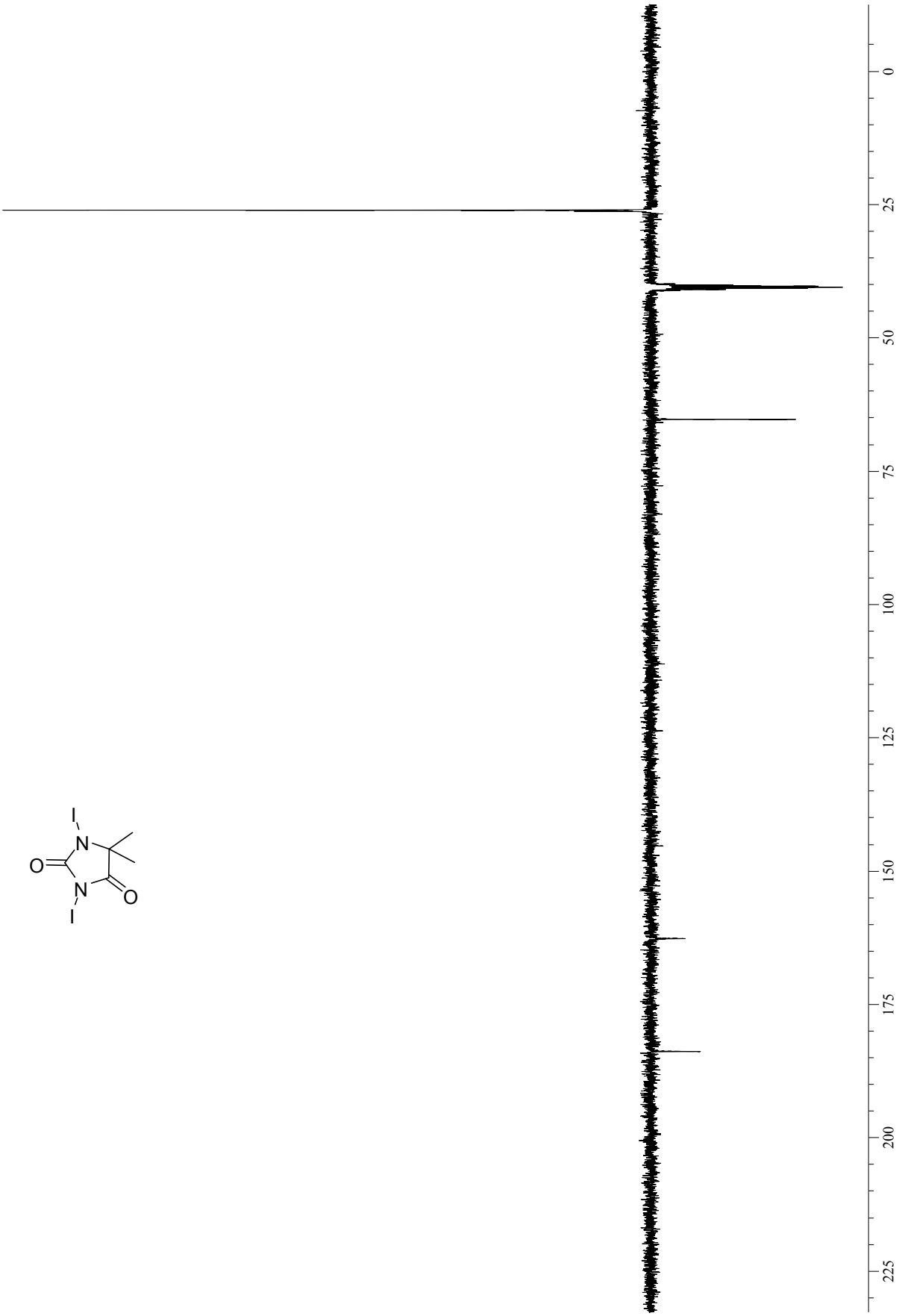
^{1}H-NMR of 1,3-Diiodo-5,5-dimethylimidazolidine-2,4-dione

Bruker AV 400 (400 MHz) equipped with a 5 mm multinuclear probe with reverse detection was used to record ^{1}H-NMR spectra. 32 scans were acquired with an acquiring time of 5 seconds.
Solvent DMSO-d6; δ = 0.99 ppm



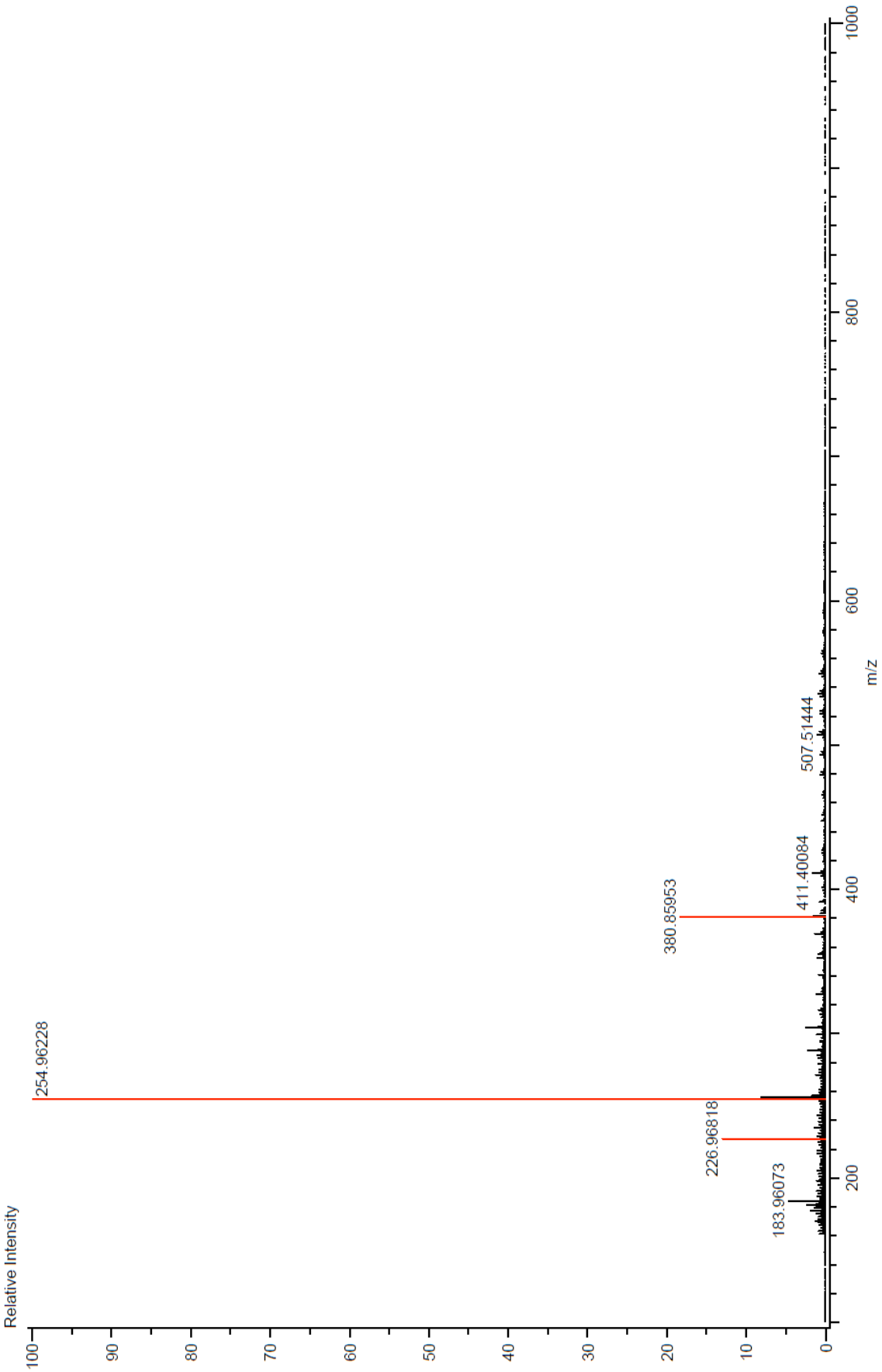
^{13}C-NMR of 1,3-Diiodo-5,5-dimethylimidazolidine-2,4-dione

Bruker AV 400 (100 MHz for ^{13}C) equipped with a 5 mm multinuclear probe with reverse detection was used to record ^{13}C-NMR spectra. 256 scans were acquired with an acquiring time of 5 seconds.
Solvent DMSO-d6; δ = 183.8, 162.6, 65.2, 26.0 ppm



ESI-MS of 1,3-Diiodo-5,5-dimethylimidazolidine-2,4-dione

Internal Sample Id:
Ionization Mode: ESI+
MS Calibration Name: PEG_ESI+_1000
Orifice1 Volt Sweep: 40V
Acquired m/z Range: 100.0..1000.0
Spec. Record Interval: 0.8[s]
Ring Lens Volt: 20[V]
Time of Maximum: 0.192[min]
Reduction History: Determine m/z[Peak Detect[Centroid,50,Area];Correct Base[5.0%]];Average(MS[1] 0.187..0.210)-1.0*Average(MS[1] 0.090..0.133);Correct Base[5.0%]



FT-IR of 1,3-Diiodo-5,5-dimethylimidazolidine-2,4-dione

Thermo Scientific Nicolet™ iS™50 FT-IR Spectrometer – ATR module