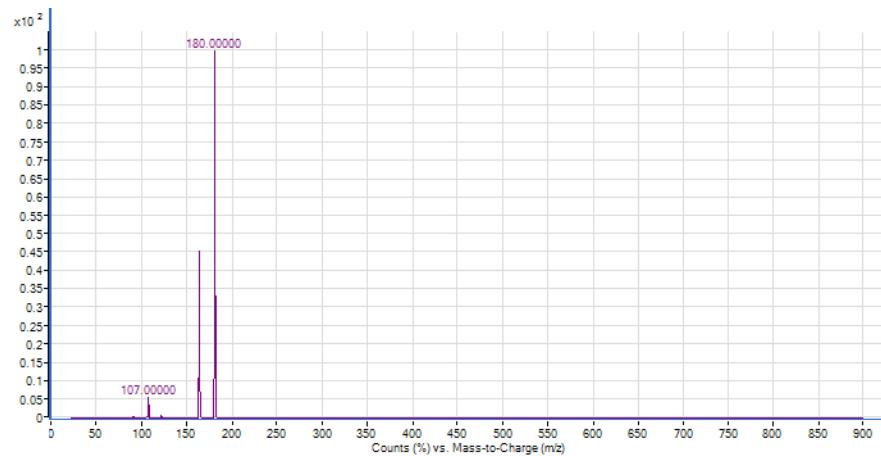
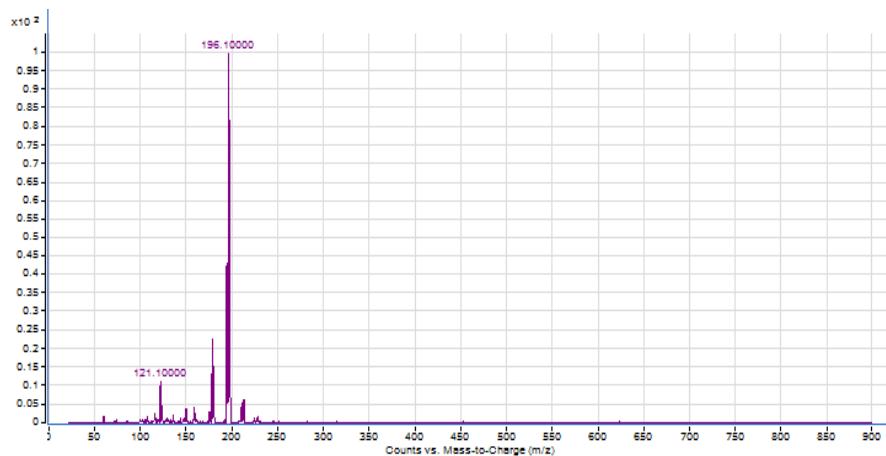


Supplementary material

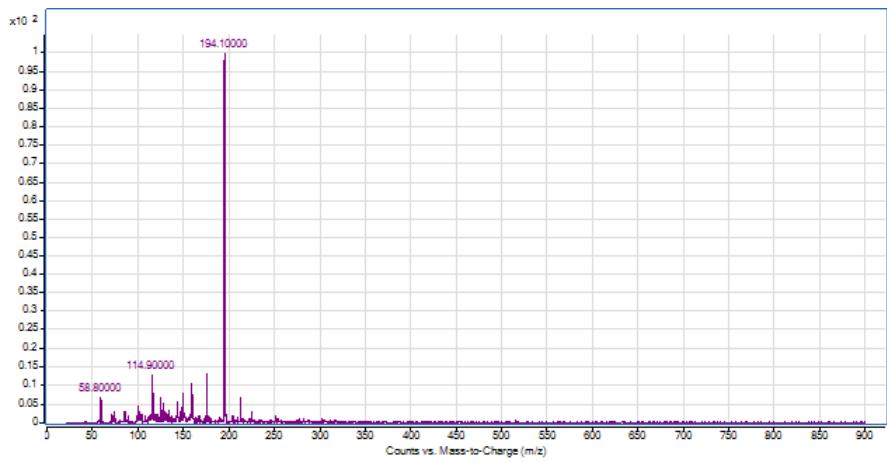
Memantine



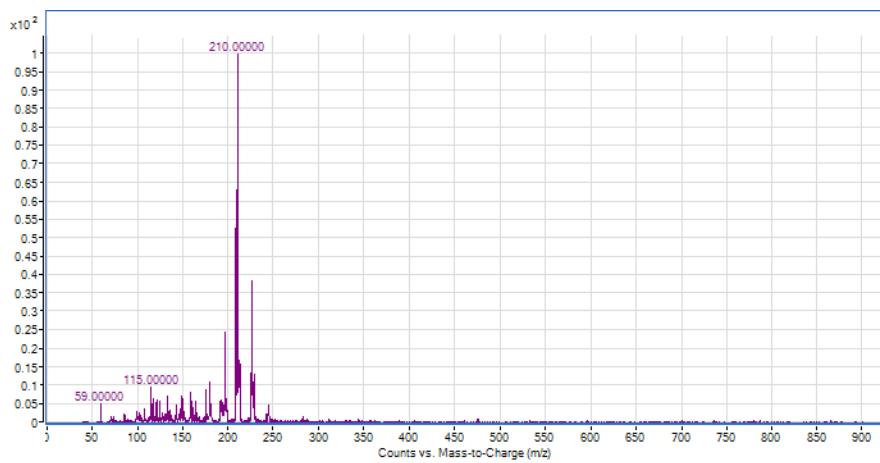
DP-1



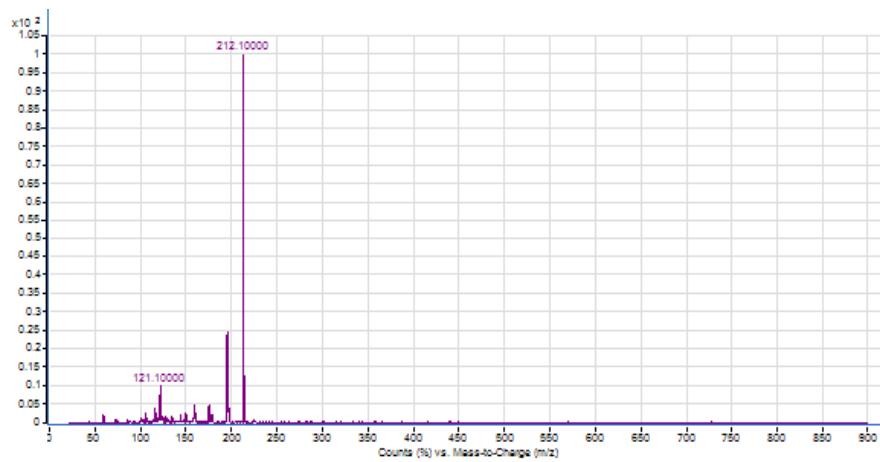
DP-2



DP-3



DP-4



DP-5

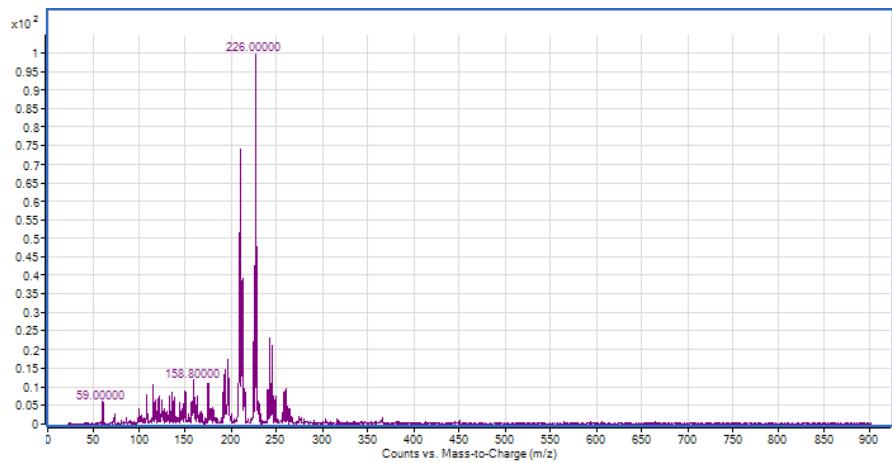


Figure S1. Mass spectra of memantine and its oxidation products

In silico prediction

Biodegradability and water solubility of memantine were predicted using EPISuite software (US EPA Estimation Programs Interface Suite™ for Microsoft® Windows, v 4.11 , 2017).

Table S1. Results of EPISuite biodegradability prediction for memantine

Memantine	
Water solubility at 25 °C (mg/L)	893.5
Ready biodegradability prediction	NO
Biowin 2 (Non-Linear Model)	0.0267
Biowin 3 (Ultimate Survey Model)	2.1910, months
Biowin 6 (MITI Non-Linear Model)	0.3990