

Figure S1. Collision breakdown curves obtained from PIS analysis reporting collision energy CE (V) versus percentage abundance. CE values for 5-Fluorouracil and 5-Chlorouracil are to be considered as negative. The listed values reported in each spectra legend are respectively precursor and product ions.

Table S1. Data results for matrix effect (ME).

Compound	ME
5-Azacytidine	86%
Dacarbazine	41%
Gemcitabine	455%
Mitoxantrone	168%

Cisplatin	101%
Cytarabine	120%
Carboplatin	98%
Oxaliplatin	87%
5-Fluorouracil	63%

Table S2. Data results of precision and accuracy for the three CQI levels.

Interday						
	Low		Medium		High	
	Precision (RSD %)	Accuracy (ratio %)	Precision (RSD %)	Accuracy (ratio %)	Precision (RSD %)	Accuracy (ratio %)
5-Azacytidine	10.6%	95.5%	6.7%	95.0%	6.5%	97.0%
Dacarbazine	11.1%	104.4%	6.5%	103.1%	7.5%	96.8%
Gemcitabine	11.5%	98.4%	8.4%	97.6%	9.4%	96.1%
Mitoxantrone	-	-	-	-	-	-
Cisplatin	9.3%	100.5%	5.4%	100.4%	6.3%	108.5%
Cytarabine	12.8%	88.7%	11.1%	94.8%	14.0%	102.8%
Carboplatin	7.4%	96.6%	5.1%	96.9%	5.3%	95.8%
Oxaliplatin	8.6%	96.2%	6.0%	98.0%	5.6%	96.7%
5-Fluorouracil	6.9%	99.8%	3.6%	100.3%	6.0%	98.1%
Intraday						
5-Azacytidine	10.1%	95.8%	8.1%	95.2%	8.1%	95.5%
Dacarbazine	11.2%	105.2%	10.9%	104.4%	12.1%	98.9%
Gemcitabine	11.3%	97.3%	11.9%	97.8%	13.0%	95.7%
Mitoxantrone	-	-	-	-	-	-
Cisplatin	7.2%	97.9%	7.2%	99.7%	7.9%	107.6%
Cytarabine	15.9%	90.1%	14.5%	96.3%	15.1%	101.0%
Carboplatin	8.0%	93.6%	7.4%	94.4%	6.7%	94.9%
Oxaliplatin	7.1%	94%	6.6%	98%	5.3%	96%
5-Fluorouracil	5.7%	100.8%	4.4%	100.3%	4.1%	97.5%

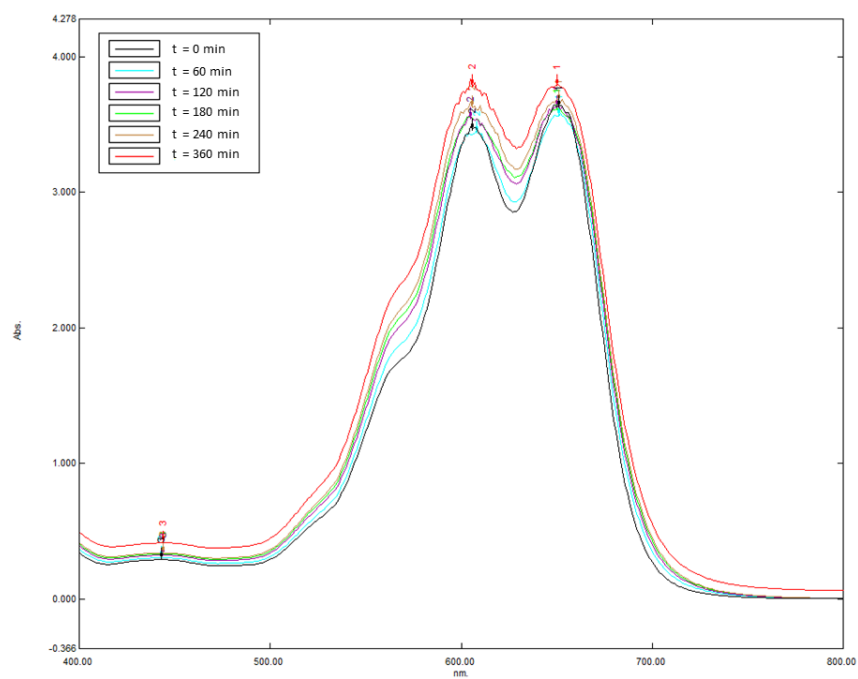


Figure S2. Overlapped UV-VIS spectra of mitoxantrone recorded in the range 400-800 nm at 1,2,3,4 and 6h delay from the preparation of the solution.