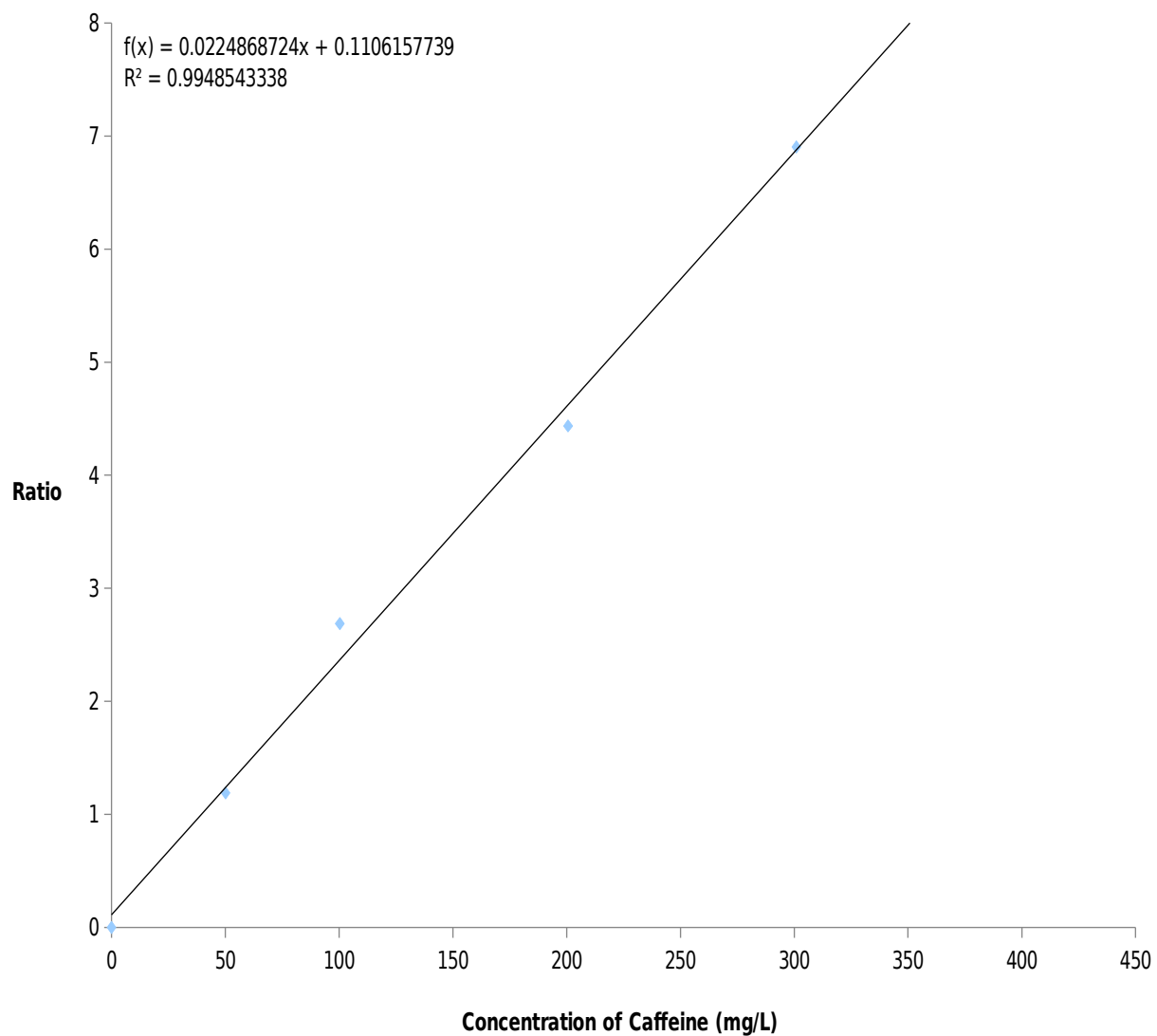


Graph 1. Calibration curve of standard solutions of [caffeine] using internal standard method



Caffeine measurements and Calculated Results using internal standard & calibration curve method

Stock	mass (g)	Conc. (mg/L)	Retention time
Caffeine	0.1254	2508	8min
Vanillin	0.2554	5108	5min

Standard	Vol Caf (mL)	[Caf] (mg/L)	Vol Van. (mL)	[Van] (mg/L)	P.A Van	P.A Caf	Ratio
1	0	0	0.24	122.592	7820	0	0
2	0.2	50.16	0.24	122.592	184000	218798	1.1891196
3	0.4	100.32	0.24	122.592	42802	115015	2.6871408
4	0.8	200.64	0.24	122.592	31626	140310	4.4365396
5	1.2	300.96	0.24	122.592	6167	42574	6.9035187
6	1.6	401.28	0.24	122.592	n/a	n/a	

Sample	P.A Van	P.A Caf	Ratio	[Caf]
Coca Cola	N/A	N/A	N/A	N/A
Diet Coca Cola	N/A	N/A	N/A	N/A
Red Bulls	N/A	N/A	N/A	N/A