

Development of Transmission Raman Spectroscopy towards the In Line, High Throughput and Non-Destructive Quantitative Analysis of Pharmaceutical Solid Oral Dose

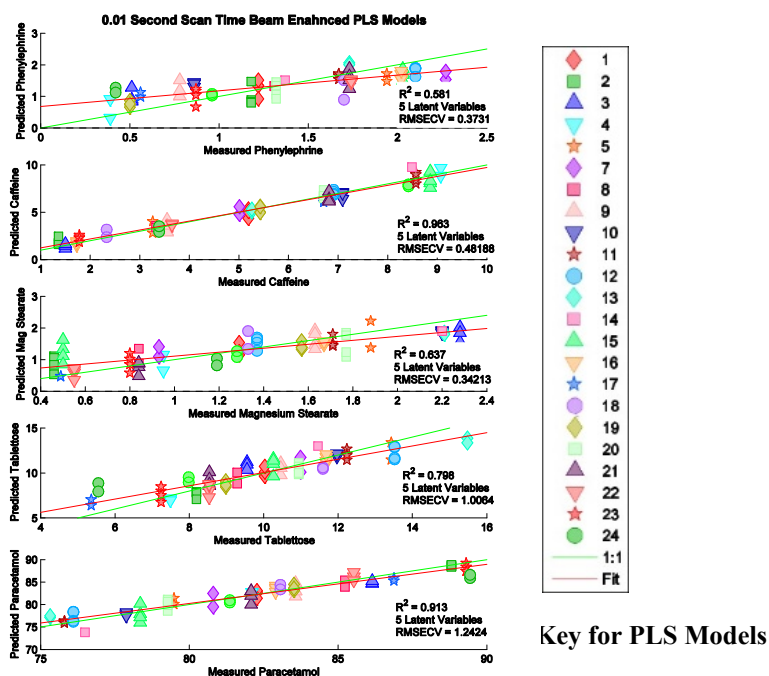
Julia Griffen¹, Andrew Owen¹, Pavel Matousek^{1,2*}

1) Cobalt Light Systems Ltd, 174 Brook Drive, Milton Park, Abingdon, Oxfordshire OX14
4SD, UK

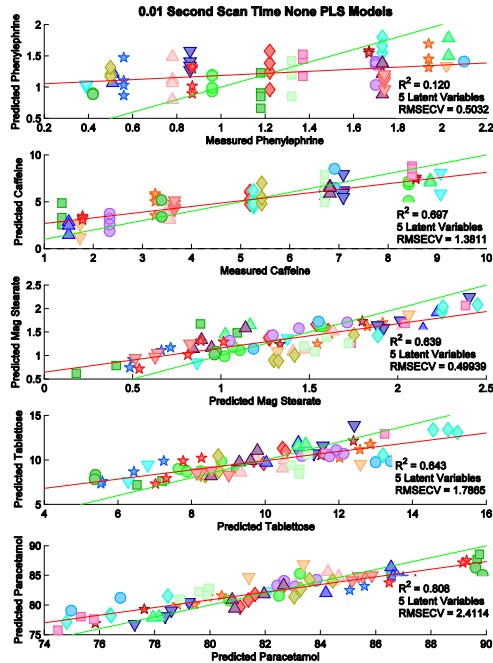
2) Central Laser Facility, Research Complex at Harwell, STFC Rutherford Appleton
Laboratory, Harwell Oxford OX11 0QX, UK

*) Contact author: Pavel.Matousek@stfc.ac.uk

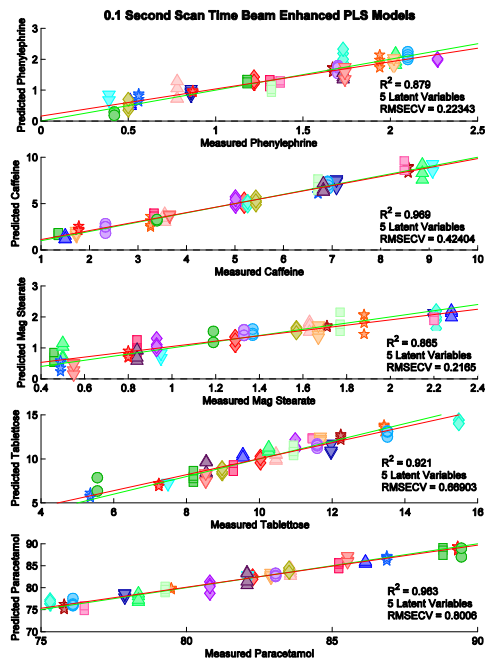
Electronic Supporting Information



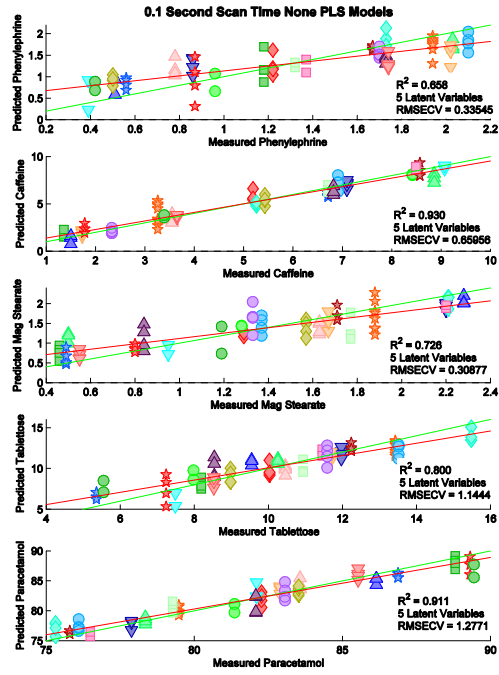
S 2: 0.01 Second Scan Time. Beam Enhanced PLS Models



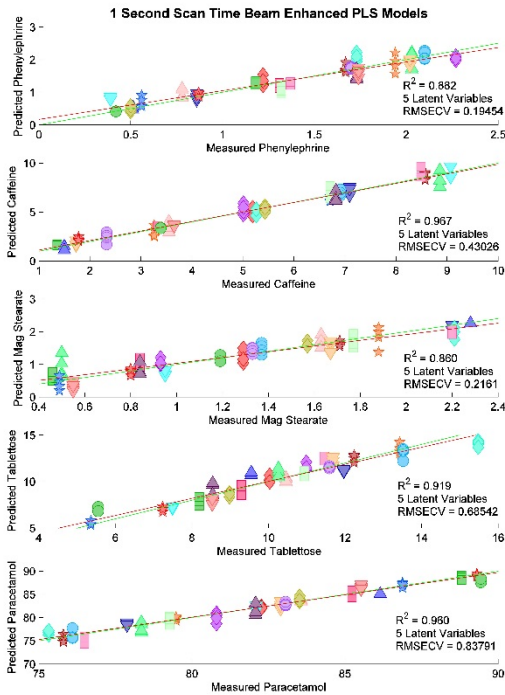
S 3: 0.01 Second Scan Time. No Beam Enhancer PLS Models



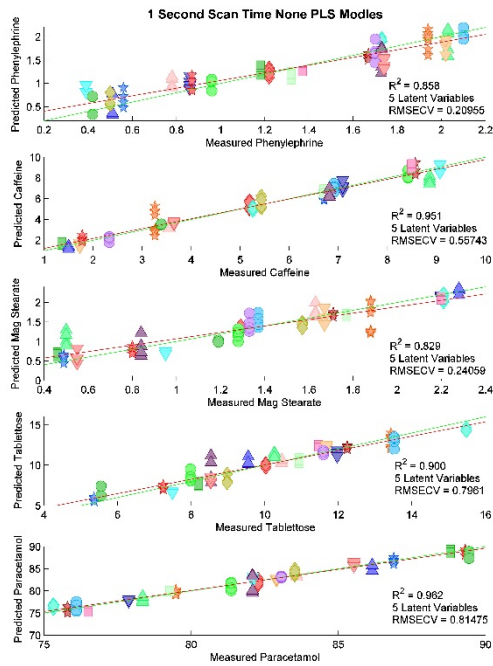
S 4: 0.1 Second Scan Time. Beam Enhanced PLS Models



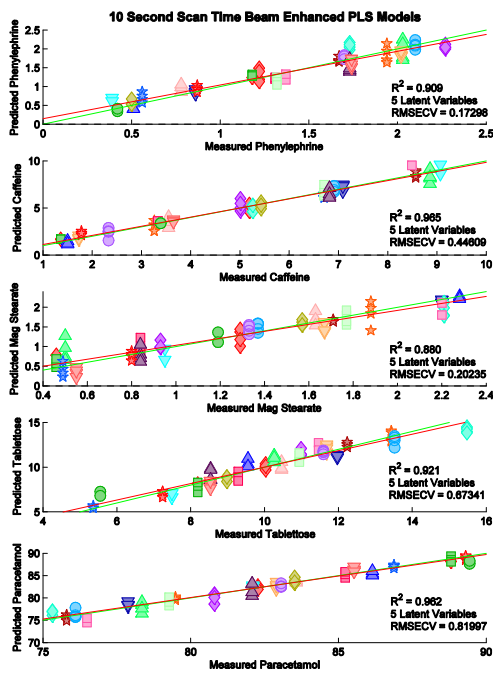
S 5: 0.1 Second Scan Time. No Beam Enhancer PLS Models



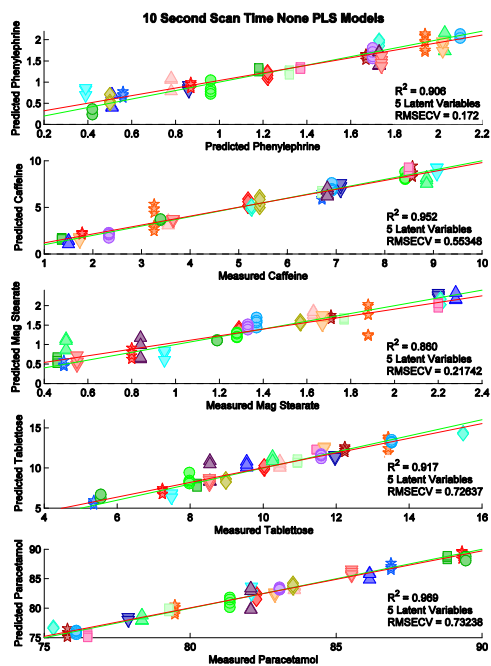
S 6: 1 Second Scan Time. Beam Enhanced PLS Models



S 7: 1 Second Scan Time. No Beam Enhancer PLS Models



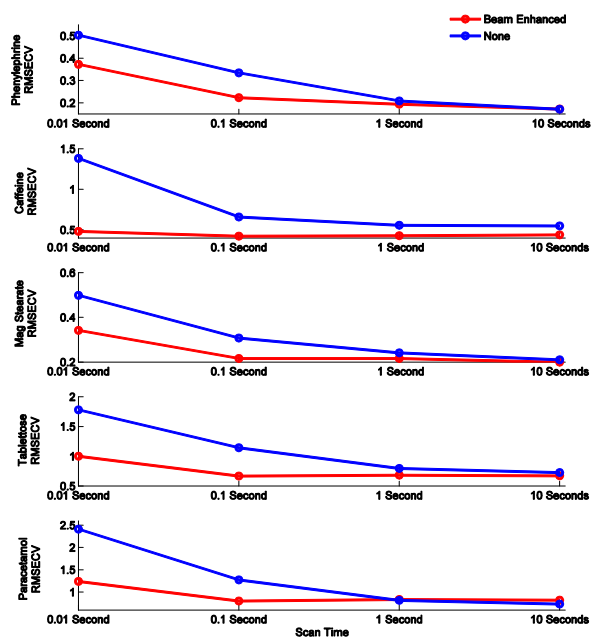
S 8: 10 Second Scan Time. Beam Enhanced PLS Models



S 9: 10 Second Scan Time. No Beam Enhancer PLS Models

S 10: RMSECV values for all the different experiments

Scan Time (s)	10		1		0.1		0.01	
	Yes	No	Yes	No	Yes	No	Yes	No
Beam Enhanced								
Phenylephrine	0.17	0.17	0.19	0.21	0.22	0.34	0.37	0.50
Caffeine	0.44	0.55	0.43	0.56	0.42	0.66	0.48	1.38
Magnesium Stearate	0.20	0.21	0.22	0.24	0.22	0.31	0.34	0.50
Tablettose	0.67	0.73	0.69	0.79	0.67	1.14	1.00	1.78
Paracetamol	0.82	0.73	0.83	0.82	0.80	1.28	1.24	2.41



S 11: Comparison of RMSECV Values