# Separation and detection of cyproconazole enantio-mers and its stereospecific recognition with chiral stationary phase by high-performance liquid chromatography

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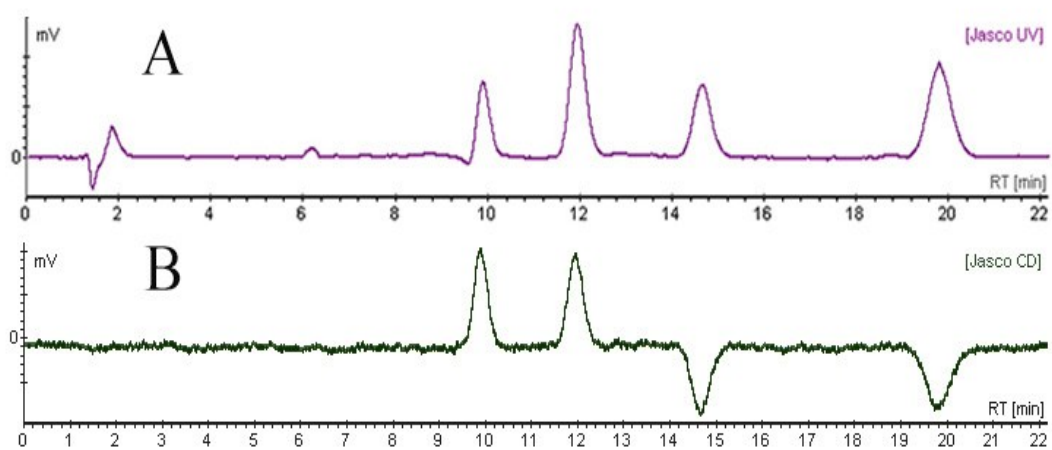
Figure S1. Chromatogram of cyproconazole with UV and CD detector: (A) UV signal;

(B) CD signal
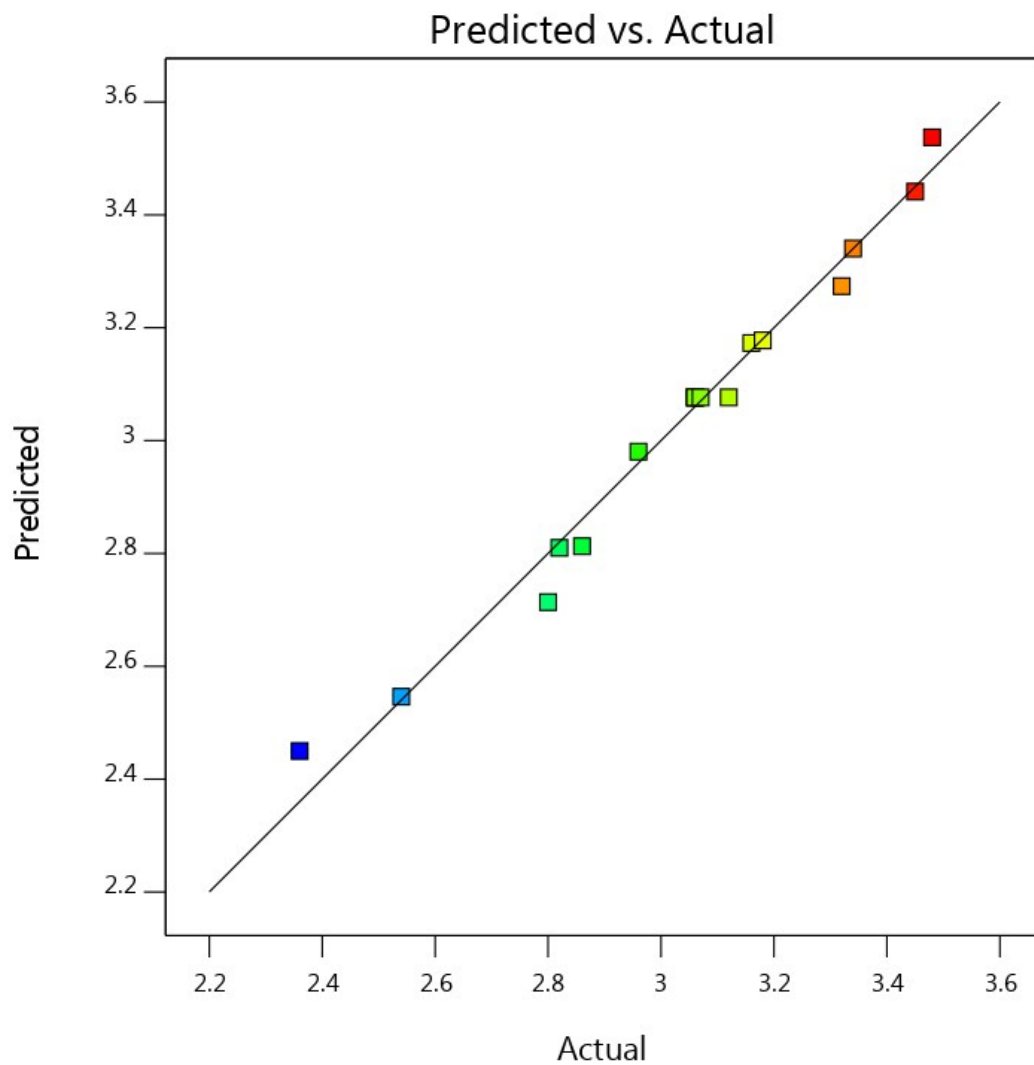
Figure S2. Experimental design to compare between the actual resolution conformity with the predicted resolution for cyproconazole on HPLC chromatograph
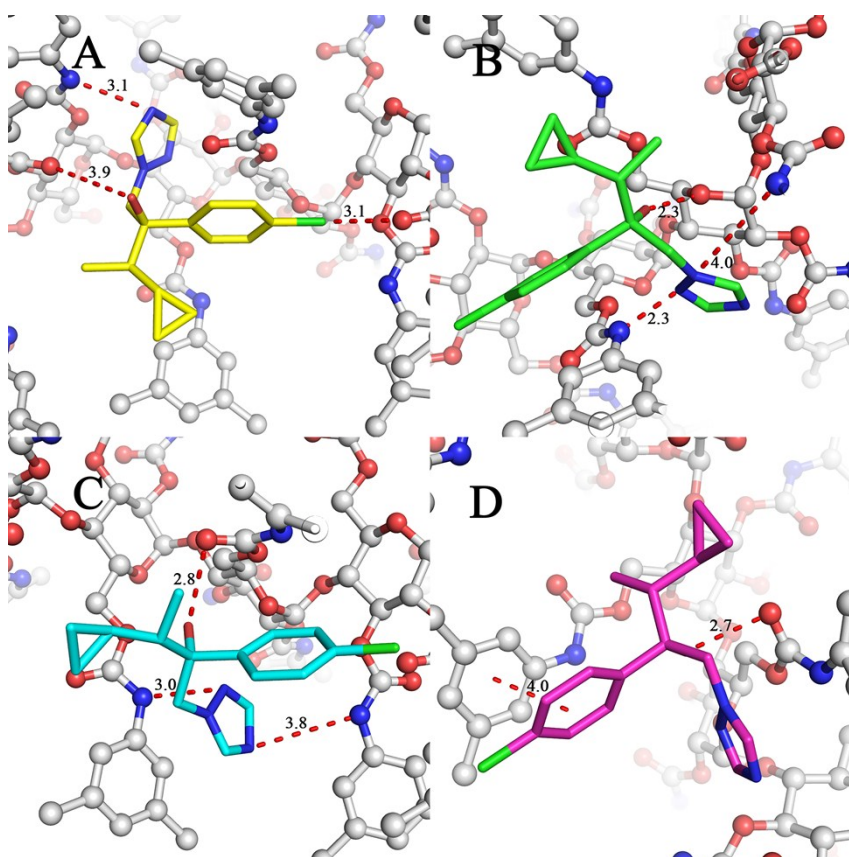
Figure S3. GOLD docking details of the final conformation interaction between four cyproconazole enantiomers and L1. A, B, C, D represent the detail interactions of L1 with (2R,3R)-(-)-cyproconazole, (2S,3S)-(+) -cyproconazole, (2R,3S)-(-)-cyproconazole and (2S,3R)-(+)-cyproconazole, respectively.
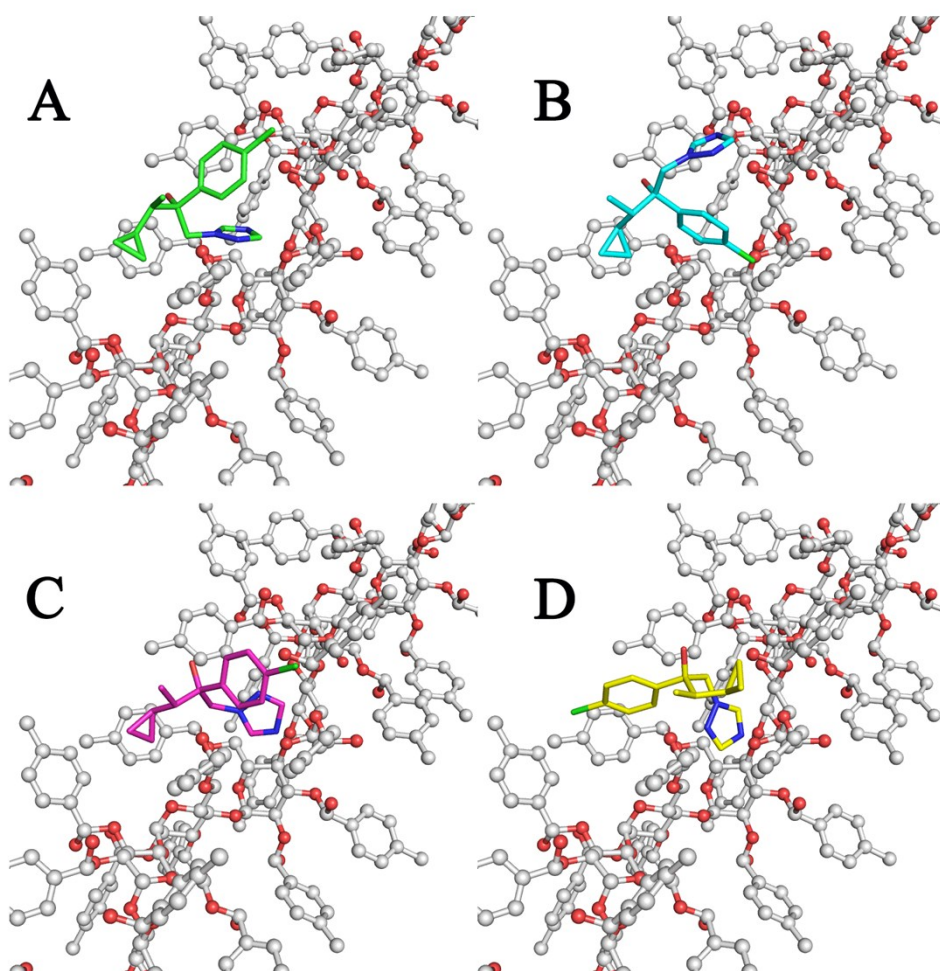
Figure S4. GOLD docking details of the final conformation interaction between four cyproconazole enantiomers and L3. A, B, C, D represent the detail interactions of L3 with (2R,3R)-(-)-cyproconazole, (2S,3S)-(+)-cyproconazole, (2R,3S)-(-)-cyproconazole and (2S,3R)-(+)-cyproconazole, respectively.

Table S1

Accuracy and precision of the proposed method in four matrices.

Compound	Matrix	Spiked level (mg kg^{-1})	Intraday(n=5)						Interday (n=15) RSD(%)
			Day 1 Average recoveries(%)	RSD(%)	Day 2 Average recoveries(%)	RSD(%)	Day 3 Average recoveries(%)	RSD(%)	
2S,3R-(+)-cyproconazole	Cucumber	0.1	95.8	8.1	94.7	8.2	91.4	10.3	2.4
		0.2	94.2	4.4	92.8	4.9	91.8	4.1	1.3
		1	97.4	4.4	97	5	96.1	3.7	0.7
	Pear	0.1	88	8.2	90.2	7.2	94.5	5	3.6
		0.2	92.7	4.7	92.8	4.7	91.4	3.8	0.8
		1	94.7	3.9	95.8	2.3	96.7	2	1
	Flour	0.1	86.2	7.2	88.9	7.8	92.8	9.9	3.7
		0.2	89.3	5.5	90.3	5.9	91.2	2.7	1.1
		1	93.4	7.6	91.2	4.5	93.3	4.1	1.3
	Soil	0.1	96.2	7.5	95.2	7.9	95.6	8.3	0.5
		0.2	81.4	7.3	82.7	9.4	85.2	8.9	2.3
		1	94.7	6.9	93.1	5.5	91	4.3	2
2S,3S-(+)-cyproconazole	Cucumber	0.1	97.7	6.3	95.2	4.5	93.4	8.1	2.3
		0.2	105.1	4.9	104.7	5.3	102.1	5.5	1.6
		1	94.7	2.7	96	4.2	95.4	5.1	0.7
	Pear	0.1	93.1	9	89.3	9.3	87.3	9.5	3.3
		0.2	97.2	7.2	97.2	7.2	96.4	8.2	0.5
		1	82.8	5.8	85.6	5.5	84.5	5.2	1.7
	Flour	0.1	85.1	5.9	85.7	6.5	86.7	7.8	0.9

		0.2	92	7.3	90.2	8.1	91.8	10	1.1
		1	96.1	2.9	96.7	2.8	95.8	3.4	0.5
	Soil	0.1	93.7	6.5	91.6	7.4	92	8.2	1.2
		0.2	91.4	9.6	89.7	9.7	87.3	4.7	2.3
		1	93.5	6.9	92.8	7	90.2	5.3	1.9
	Cucumber	0.1	88.1	6.9	85.6	9.9	83.9	10.9	2.5
		0.2	90.4	3.8	88.2	5.8	87.4	6.5	1.8
		1	84.2	4	85.6	3	87.1	2	1.7
	Pear	0.1	95.1	10.8	91.2	8.8	87.4	4.7	4.2
		0.2	96.5	11	95.4	10	96.7	7.8	0.7
2R,3S-(-)-cyproconazole		1	83.6	6.9	84	6.5	82.8	8.3	0.7
	Flour	0.1	83.4	8.2	82.8	8.7	84.1	9.2	0.8
		0.2	82.2	5.8	82.8	6.1	82.4	6.5	0.4
		1	84.5	5.6	85.1	5	84.4	4.2	0.4
	Soil	0.1	80.7	9.6	78.2	3.3	78.8	3.3	1.6
		0.2	96.9	2.1	95.6	2.2	96.1	2	0.7
		1	90	4.6	88.1	7.1	88.3	7.3	1.2
	Cucumber	0.1	87.9	5.8	88.7	7.5	90	6.9	1.2
		0.2	86.3	4.4	86	5	83.7	4.9	1.7
		1	81.8	4.6	84.5	2.8	83.8	3.6	1.7
2R,3R-(-)-cyproconazole	Pear	0.1	91.6	8.1	87.6	8.6	84.8	5.4	3.9
		0.2	93.4	4.6	92.2	3.7	92.8	3.2	0.6
		1	86.4	6.9	86	6.6	88	2.7	1.2
	Flour	0.1	83.4	7.8	83	7.1	84.4	5.2	0.9
		0.2	78.9	5.2	77.4	2.9	77.2	2.5	1.2
		1	80.7	5.2	81.1	5.1	82.2	6.7	1

Soil	0.1	80.9	5.5	83.9	10.5	86.4	8.8	3.3
	0.2	88.7	7.3	87.8	7.7	88.4	6.6	0.5
	1	80.6	3.7	79	4.5	77.7	4.7	1.8