Table S1. Velocimetry results of field experiment based on the solar absorption spectrum.

Order Number	Measured Phase Value (rad)	Calculated Speed Value (m/s)	Velocimetry Standard Deviation (m/s)
1	0.258	1766.56	47.93
2	0.298	2040.45	27.39
3	0.288	1971.97	47.93
4	0.271	1855.57	20.54
5	0.306	2095.22	68.47
6	0.29	1985.67	136.94
7	0.237	1622.77	54.78
8	0.316	2163.69	27.39
9	0.314	2150.00	34.24
10	0.325	2225.32	34.24
11	0.299	2047.26	20.54
12	0.343	2348.57	143.79
13	0.372	2547.13	68.47
14	0.292	1999.36	130.10
15	0.325	2225.32	164.33
16	0.288	1971.97	47.93
17	0.298	2040.45	27.39
18	0.302	2067.83	20.54
19	0.299	2047.29	20.54
20	0.293	2006.21	6.16
21	0.283	1937.74	47.93
22	0.269	1841.88	41.08
23	0.311	2129.46	54.78
24	0.301	2060.99	41.08
25	0.311	2129.46	41.08
26	0.268	1835.03	89.01
27	0.276	1889.81	116.40
28	0.338	2314.33	54.78
29	0.323	2211.62	61.62
30	0.309	2115.76	68.47
31	0.259	1773.41	75.32
32	0.251	1718.63	61.62
33	0.254	1739.17	82.17
34	0.298	2040.45	34.24
35	0.284	1944.59	61.62
36	0.284	1944.59	75.32
37	0.308	2108.92	68.47
38	0.281	1923.189	65.90
39	0.297	2033.60	27.39
40	0.3	2054.14	34.24
41	0.264	1807.64	20.54
42	0.304	2081.53	89.01
43	0.308	2108.92	75.32
44	0.264	1807.64	34.24
45	0.297	2033.60	102.71

46	0.351	2403.34	47.93
47	0.354	2423.89	102.71
48	0.313	2143.15	13.69
49	0.294	2013.06	27.39
50	0.321	2197.93	109.55
51	0.364	2492.36	20.54
52	0.338	2314.33	102.71
53	0.299	2047.29	20.54
54	0.319	2184.24	34.24
55	0.324	2218.47	61.62
56	0.295	2019.90	27.39
57	0.304	2081.53	54.78
58	0.33	2259.55	34.24
59	0.326	2232.17	27.39
60	0.318	2177.39	2.74
61	0.307	2102.07	61.62
62	0.273	1869.27	41.08
63	0.273	1869.27	47.93
64	0.297	2033.60	54.78
65	0.332	2273.25	54.78
66	0.334	2286.94	27.39
67	0.333	2280.10	20.54
68	0.324	2218.47	82.17
69	0.277	1896.66	68.47
70	0.273	1869.27	47.93
average value	0.30	2066.75	55.26