

Supplementary Material: Controllable Micro-particle Rotation and Transportation Using Sound Field Synthesis Technique

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Table S1. The source parameters for Figure 3.

Figure		Figure 3a	Figure 3b	Figure 3c	Figure 3d
Source					
1	Amplitude 1	0.1217	0.7136	0.5095	0.7136
	Phase 1	109.405°	190.825°	19.540°	190.825°
2	Amplitude 2	0.1802	0.1600	0.7846	0.3856
	Phase 2	218.212°	129.370°	191.300°	19.815°
3	Amplitude 3	1	0.2244	0.2611	0.5187
	Phase 3	5.258°	207.860°	151.813°	191.265°
4	Amplitude 4	0.3555	1	0.2547	0.3037
	Phase 4	350.581°	3.959°	199.540°	167.648°
5	Amplitude 5	0.1041	0.6106	1	0.1663
	Phase 5	170.030°	357.901°	1.743°	188.931°
6	Amplitude 6	0.3641	0.1663	1	0.6106
	Phase 6	177.064°	188.931°	1.743°	357.901°
7	Amplitude 7	0.3154	0.3037	0.2547	1
	Phase 7	190.340°	167.648°	199.540°	3.959°
8	Amplitude 8	0.2614	0.5187	0.2611	0.2244
	Phase 8	20.940°	191.265°	151.813°	207.860°
9	Amplitude 9	0.6417	0.3856	0.7846	0.1600
	Phase 9	189.895°	19.815°	191.300°	129.370°

Table S2. The source parameters for Figure 4.

Transducer	Figure	Figure 4a	Figure 4b	Figure 4c	Figure 4d
1	Amplitude 1	0.7136	0.7136	0.7136	0.7136
	Phase 1	318.104°	63.546°	63.546°	318.104°
2	Amplitude 2	0.1600	0.1600	0.1600	0.1600
	Phase 2	308.685°	113.682°	310.055°	145.058°
3	Amplitude 3	0.2244	0.2244	0.2244	0.2244
	Phase 3	355.307°	311.104°	60.413°	104.616°
4	Amplitude 4	1	1	1	1
	Phase 4	50.5467°	177.826°	317.372°	190.093°
5	Amplitude 5	0.6106	0.6106	0.6106	0.6106
	Phase 5	281.830°	161.037°	73.973°	194.766°
6	Amplitude 6	0.1663	0.1663	0.1663	0.1663
	Phase 6	25.796°	265.002°	352.067°	112.860°
7	Amplitude 7	0.3037	0.3037	0.3037	0.3037
	Phase 7	353.782°	121.061°	341.515°	214.2356°
8	Amplitude 8	0.5187	0.5187	0.5187	0.5187
	Phase 8	88.022°	43.818°	294.509°	338.713°
9	Amplitude 9	0.3856	0.3856	0.3856	0.3856
	Phase 9	35.503°	200.500°	4.127°	199.130°