Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Polarization independence of laser-induced nucleation in supersaturated aqueous urea solutions

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SUPPLEMENTARY INFORMATION

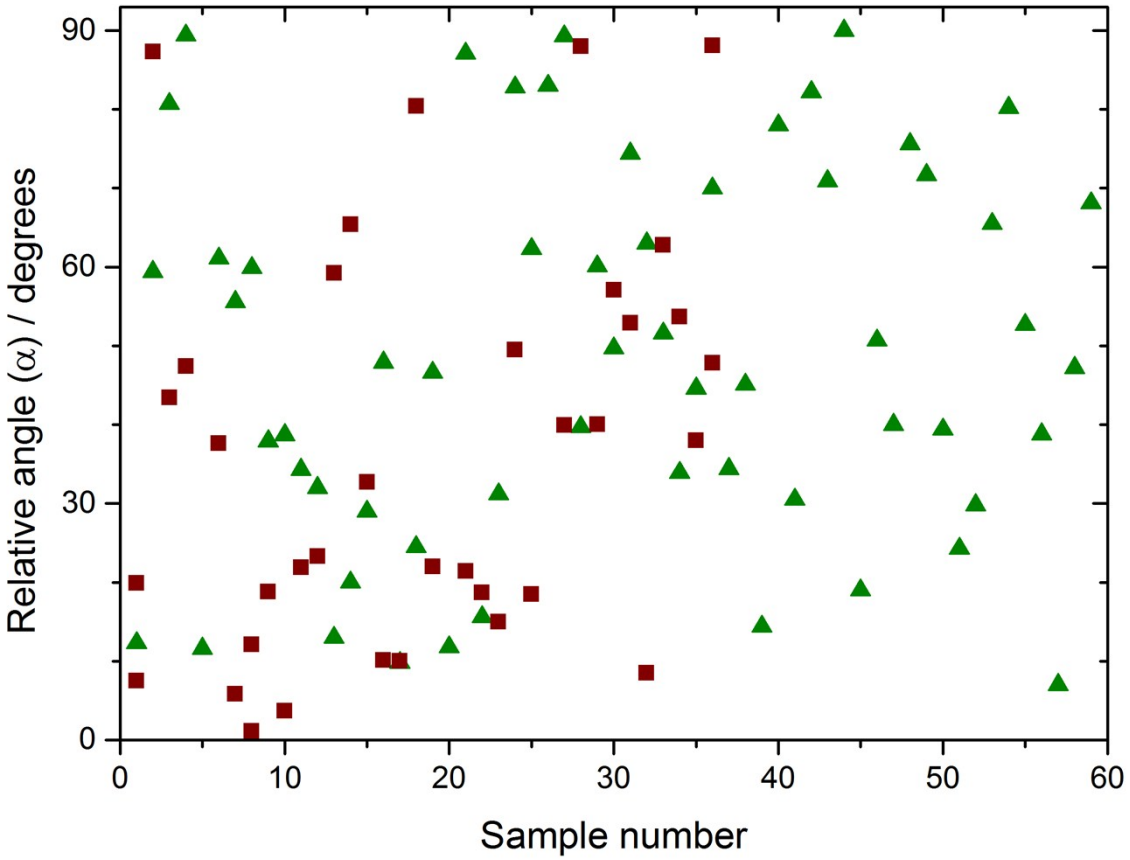

Figure S1. Scatter plot showing the measured angle of nascent urea crystals relative to the direction of the plane of linearly polarized light. The data at 532 nm (green triangles) and 1064 nm (red squares) show very low correlations. At 1064 nm a few samples produced multiple initial needles: for samples producing 2 crystals (samples 1, 8, 36), both angles are plotted; samples giving more than 2 crystals (samples 5, 20, 26) are not plotted.

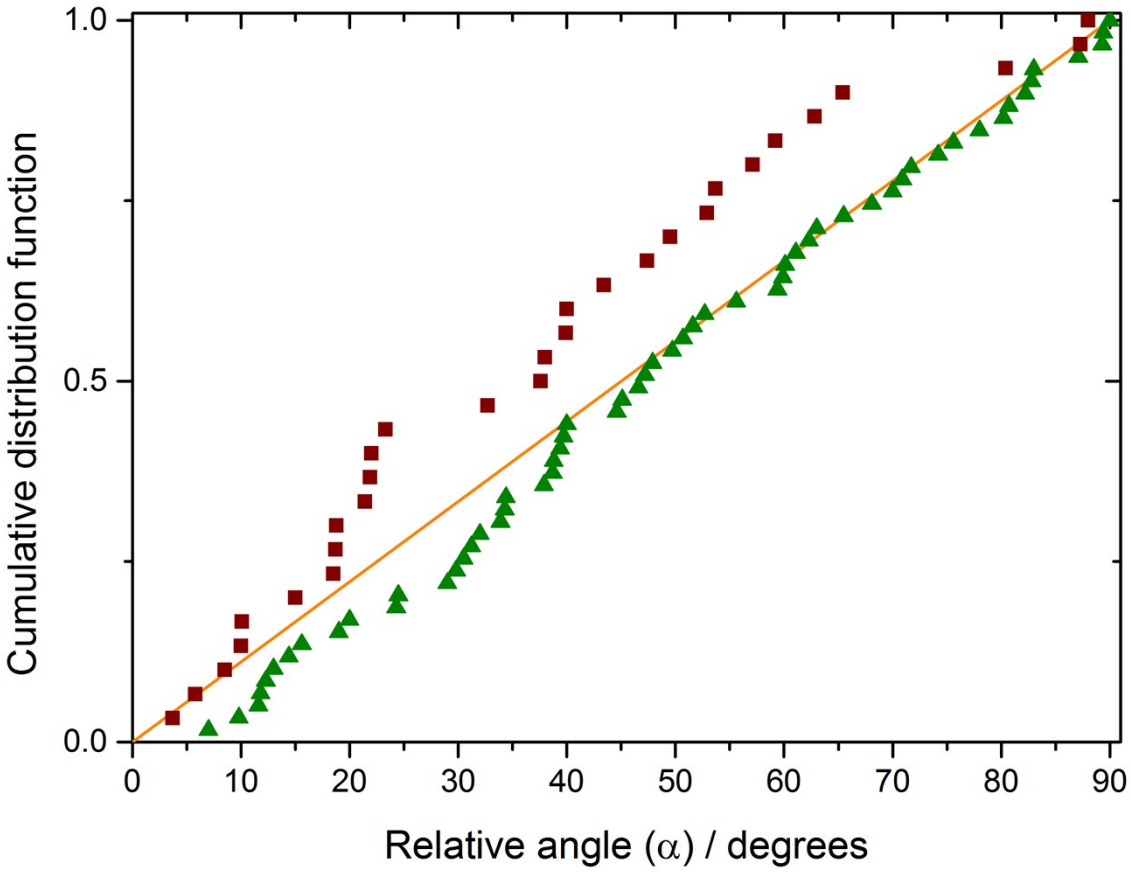

Figure S2. Plot showing the cumulative distribution functions (CDF) $F_o(\alpha)$ for data at 532 nm (green triangles) and 1064 nm (red squares). The angle data have been arranged in increasing numerical order prior to construction of the CDF. The solid orange line shows the model CDF, $F_e(\alpha)$, expected for uniformly random angles.

Table S1. Measured projected relative angles (α) at 532 nm.

sample number	angle (α) / degrees	sample number	angle (α) / degrees	sample number	angle (α) / degrees
1	12.3	21	87.1	41	30.5
2	59.4	22	15.6	42	82.2
3	80.7	23	31.2	43	70.9
4	89.4	24	82.8	44	90.0
5	11.6	25	62.3	45	19.0
6	61.1	26	83.0	46	50.7
7	55.6	27	89.3	47	40.0
8	59.9	28	39.7	48	75.6
9	37.9	29	60.1	49	71.7
10	38.7	30	49.7	50	39.4
11	34.3	31	74.2	51	24.3
12	32.0	32	63.0	52	29.8
13	13.0	33	51.6	53	65.5
14	20.0	34	33.9	54	80.2
15	29.0	35	44.6	55	52.7
16	47.9	36	70.0	56	38.8
17	9.8	37	34.4	57	7.0
18	24.5	38	45.1	58	47.2
19	46.6	39	14.4	59	68.1
20	11.8	40	78.0		

Table S2. Measured projected relative angles (α) at 1064 nm. Note that some samples showed multiple needles (angles not measured for > 2 needles).

sample number	**angle (α) / degrees**	**sample number**	**angle (α) / degrees**	**sample number**	**angle (α) / degrees**
1	7.5	12	23.3	25	18.5
1	19.9	13	59.2	26	multi
2	87.3	14	65.4	27	39.9
3	43.4	15	32.7	28	88.0
4	47.4	16	10.1	29	40.0
5	multi	17	10.0	30	57.1
6	37.6	18	80.4	31	52.9
7	5.8	19	22.0	32	8.5
8	1.1	20	multi	33	62.8
8	12.1	21	21.4	34	53.7
9	18.8	22	18.7	35	38.0
10	3.7	23	15.0	36	47.8
11	21.9	24	49.5	36	88.1