

## Supplementary information: Table, Figures (,and videos ?)

*Disclaimer: This is a work in progress*

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Table 1. Image properties and metrics

Experiment Stage # - Imaging mode	Image size (width x height)	Calibrated pixel (px) to length conversion
Stage 1 - A	450 x 200 px	25 $\mu\text{m}$ /px
Stage 1 - B, C, and D	250 x 250 px	66 $\mu\text{m}$ / px
Stage 2 - C and D	400 x 300 px	83 $\mu\text{m}$ / px
Stage 3 - C and D		
Stage 4 - C and D		

Stage 1: Impact, spreading, and wetting dynamics of a single drop

Stage 1 – A ,10000fps



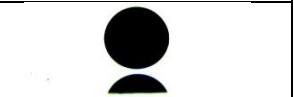
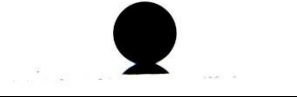













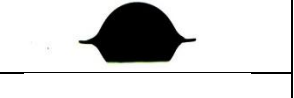
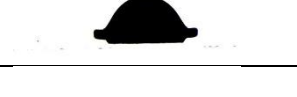








Pristine PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
-0.1ms			
0ms			
0.1ms			
0.2ms			
0.3ms			
0.5ms			
1ms			
2ms			
5ms			

Figure S1. Stage1 – A, Pristine PEDOT: PSS




























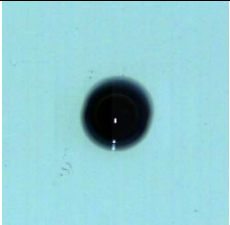
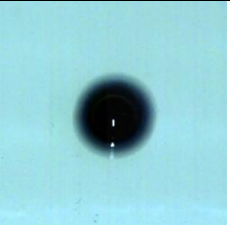
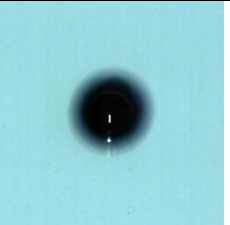
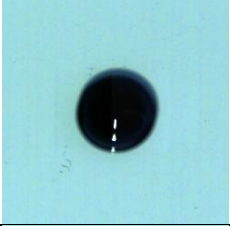
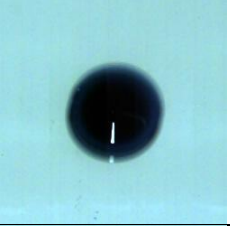
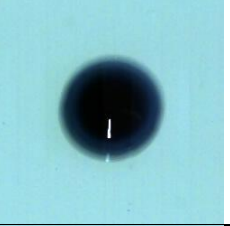
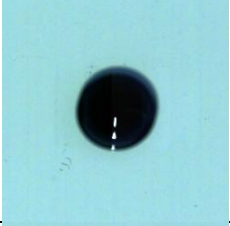
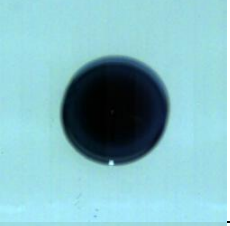
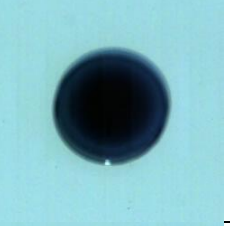


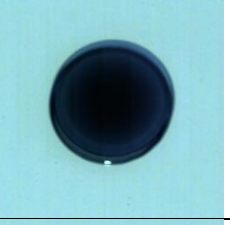


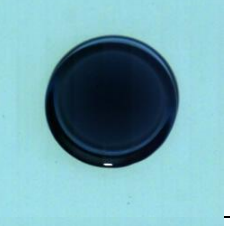
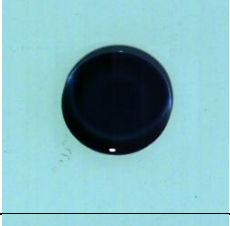

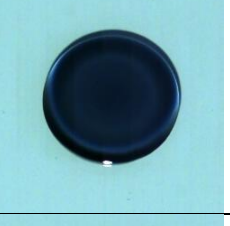



IPA-diluted PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
-0.1ms			
0ms			
0.1ms			
0.2ms			
0.3ms			
0.5ms			
1ms			
2ms			
5ms			

Figure S2. Stage1 – A, IPA-diluted PEDOT: PSS

Stage 1 – B, 2000fps

Pristine PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
0.5ms			
1ms			
1.5ms			
2ms			
3ms			
5ms			
25ms			

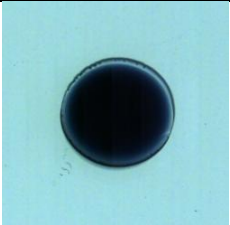
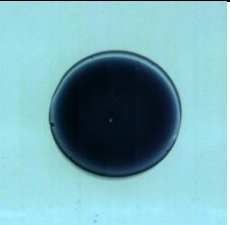
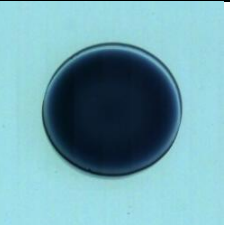
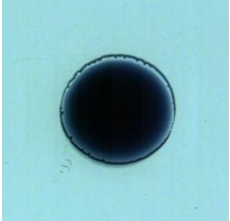
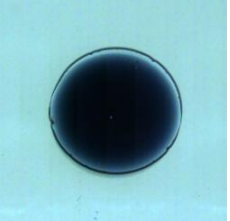
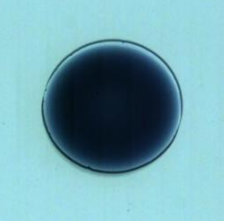
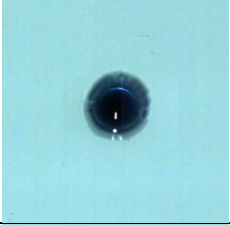
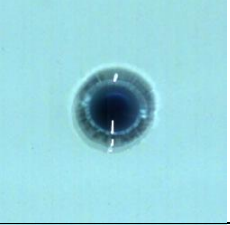
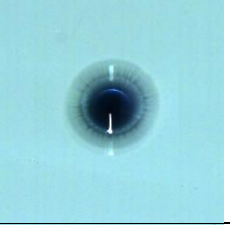

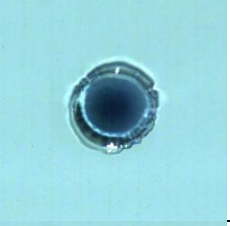
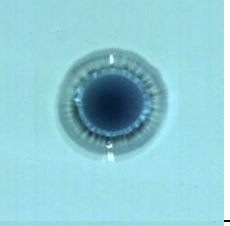

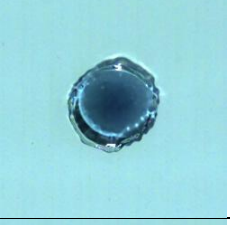
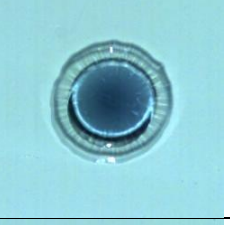






50ms			
500ms			

Figure S3. Stage1 – B, Pristine PEDOT: PSS

IPA-diluted PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
0.5ms			
1ms			
1.5ms			
2ms			
3ms			

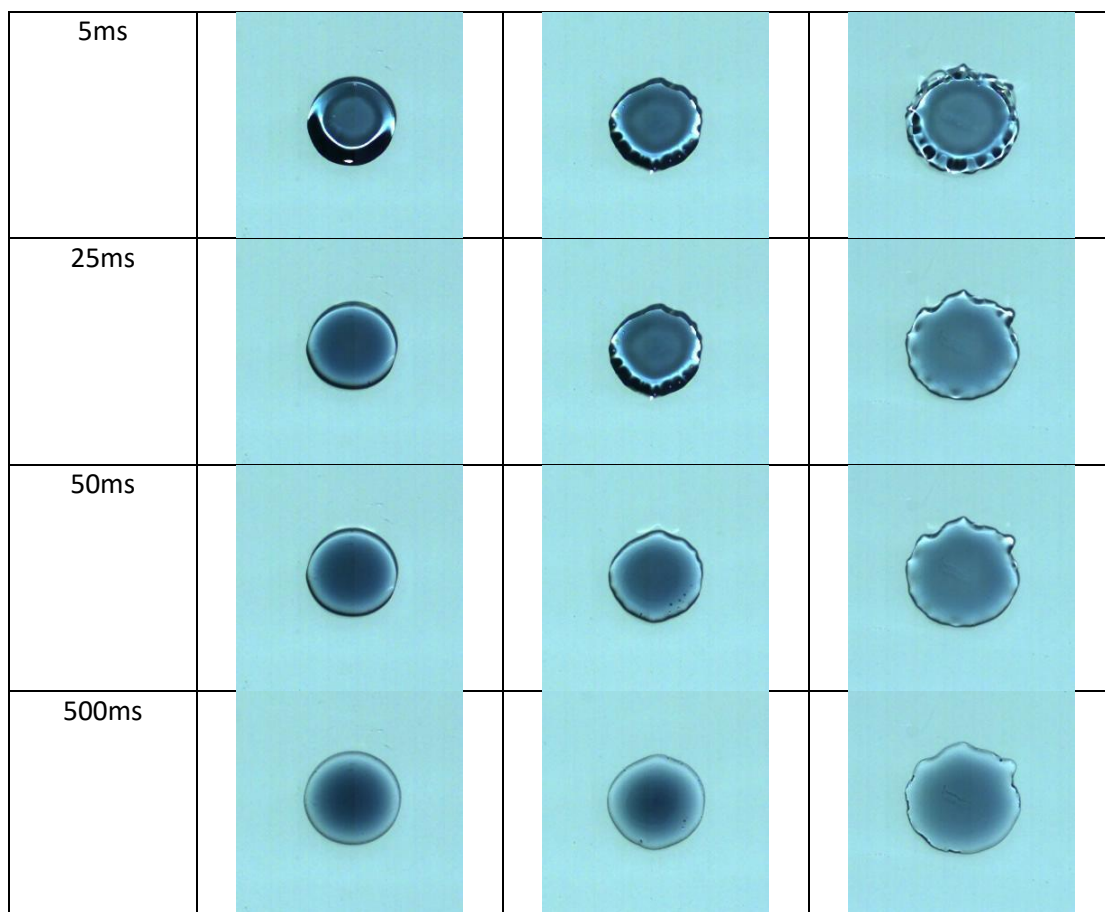


Figure S4. Stage1 – B, IPA-diluted PEDOT: PSS

Stage 1 – C, 50fps

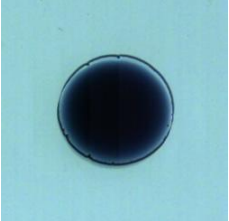

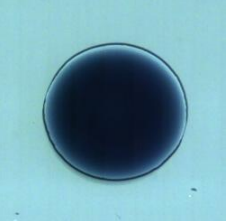
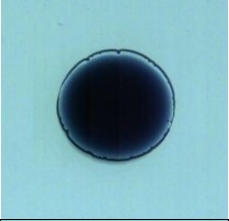

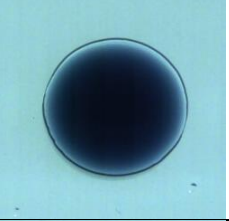
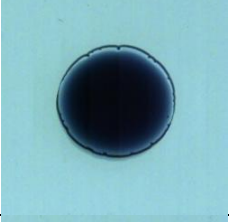
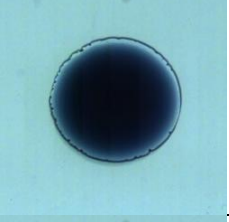
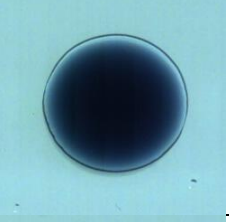
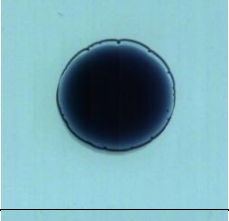

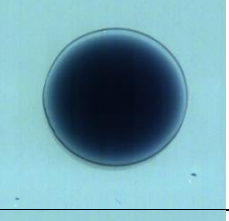
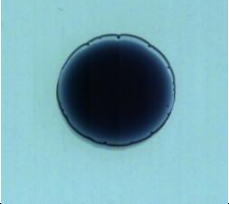
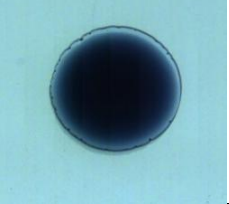
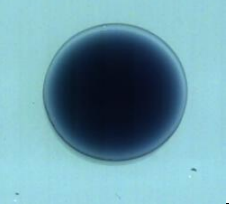
Pristine PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
1s			
5s			
10s			
30s			
50s			

Figure S5. Stage1 – C, Pristine PEDOT: PSS



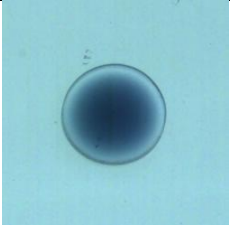
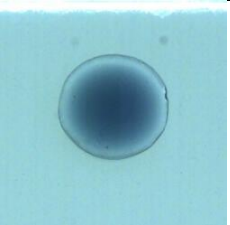
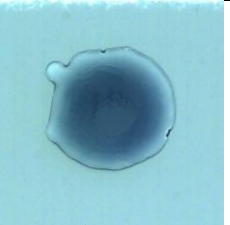

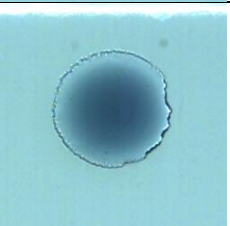
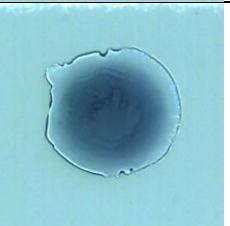
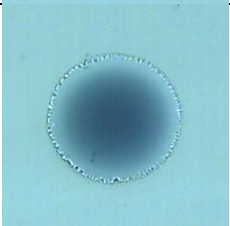
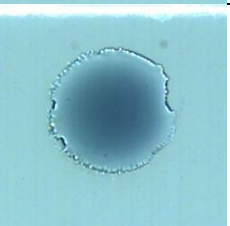
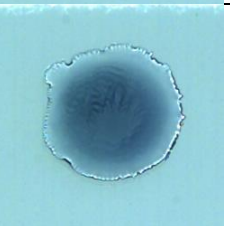
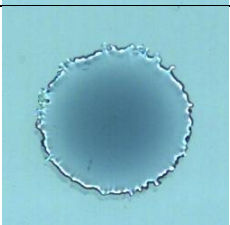
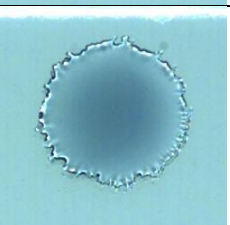

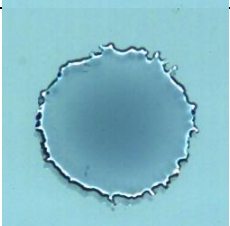
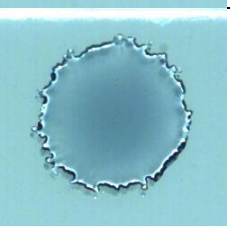
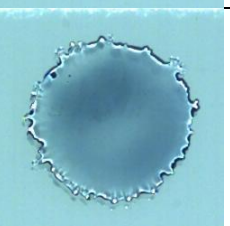
IPA-diluted PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s (to be fixed i.e. replace with the image sequence without substrate edge)	2.42 m/s
1s			
5s			
10s			
30s			
50s			

Figure S6. Stage1 – C, IPA-diluted PEDOT: PSS



Stage 1 – D, 0.1 fps

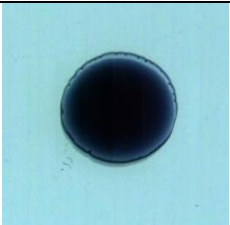
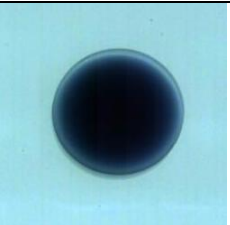
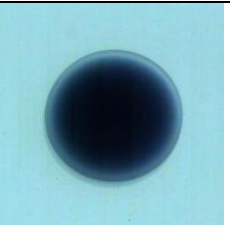
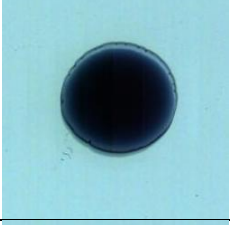
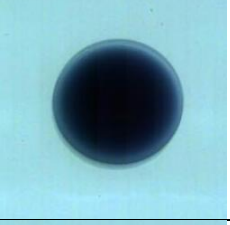
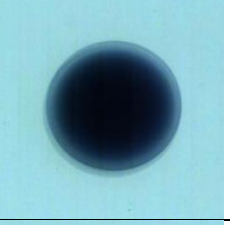
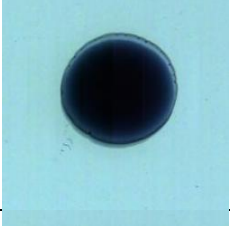
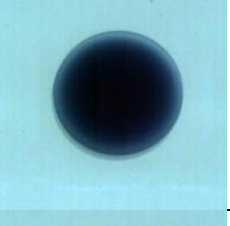
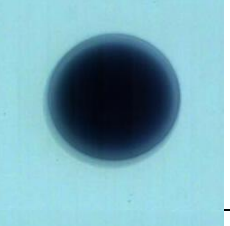
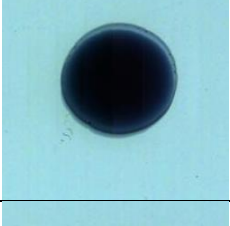
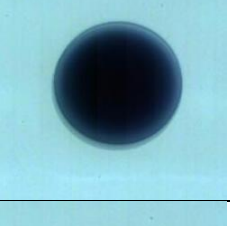
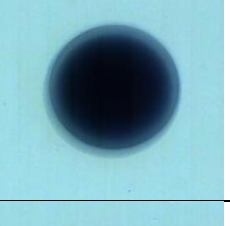



Pristine PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
100s			
150s			
200s			
250s			
300s			

Figure S7. Stage1 – D, Pristine PEDOT: PSS


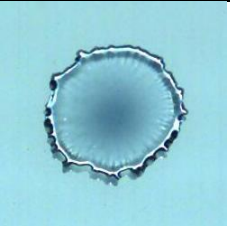


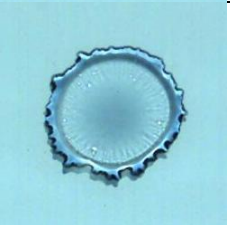
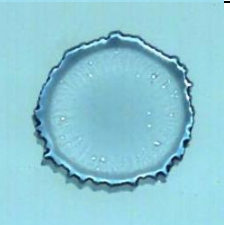

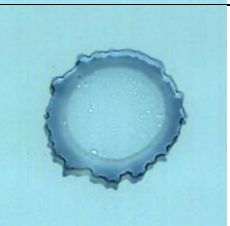
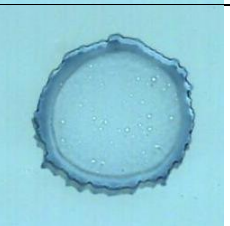

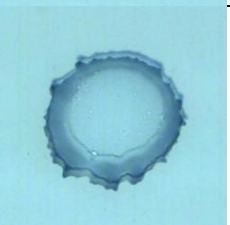
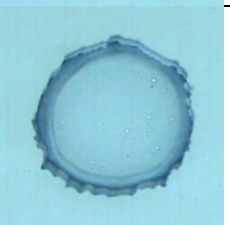

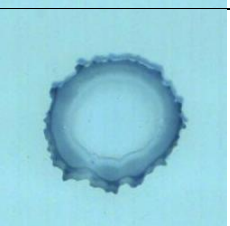
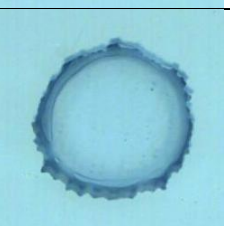


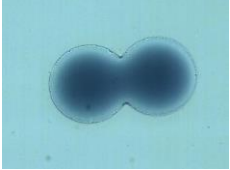

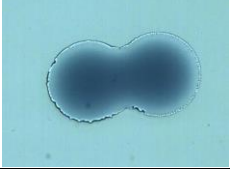

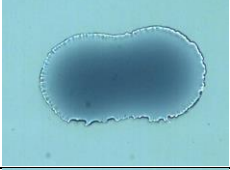

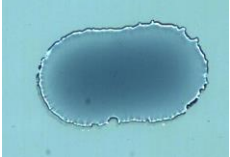


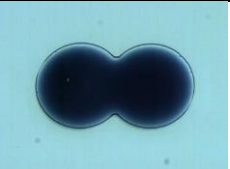


IPA-diluted PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
100s			
150s			
200s			
250s			
300s			

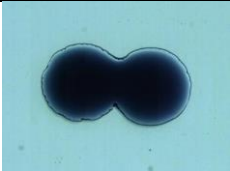
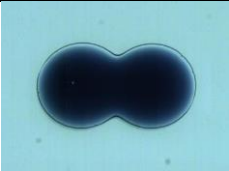
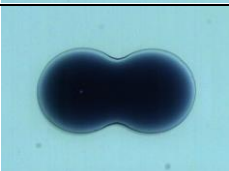
Figure S8. Stage1 – D, IPA-diluted PEDOT: PSS

Stage 2: Coalescence of two droplets (work in progress)

Stage 2 – C

Pristine PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
1s			
5s			
10s			
30s			
50s			

IPA-diluted PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
1s			
5s			

10s			
30s			
50s			

Stage 2 – D

Pristine PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
100s			
150s			
200s			
250s			
300s			

IPA-diluted PEDOT: PSS	Impact velocity		
Time	1.40 m/s	1.98 m/s	2.42 m/s
100s			
150s			
200s			
250s			
300s			

Stage 3: Line formation of 8 droplets

Stage 3 – C

Stage 3 – D

Stage 4: Film formation of 64 droplets

Stage 4 – C

Stage 4 – D