

Supporting Information for *Sequential drop impacts onto horizontal fiber arrays*

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Supplemental Figures

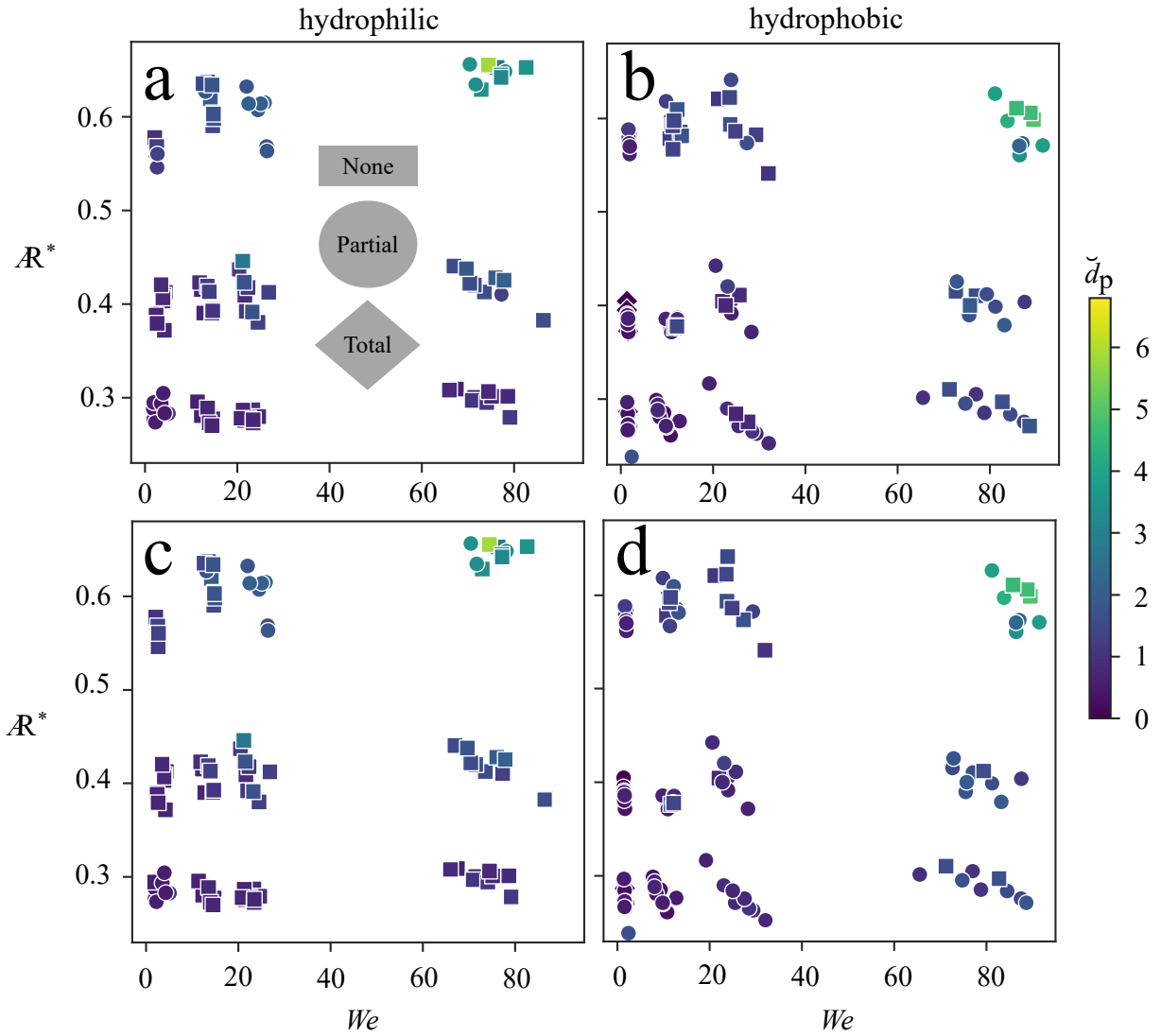


Figure S1: Staggered fiber impacts classified according to the degree of supersurface retention and plotted across the modified aspect ratio \mathcal{R}^* and Weber number We . Brighter colors correspond to higher penetration depths; refer to **Fig.7** of the paper. **(a-b)** Impact classifications after the first drop. **(c-d)** Impact classifications after the second drop.

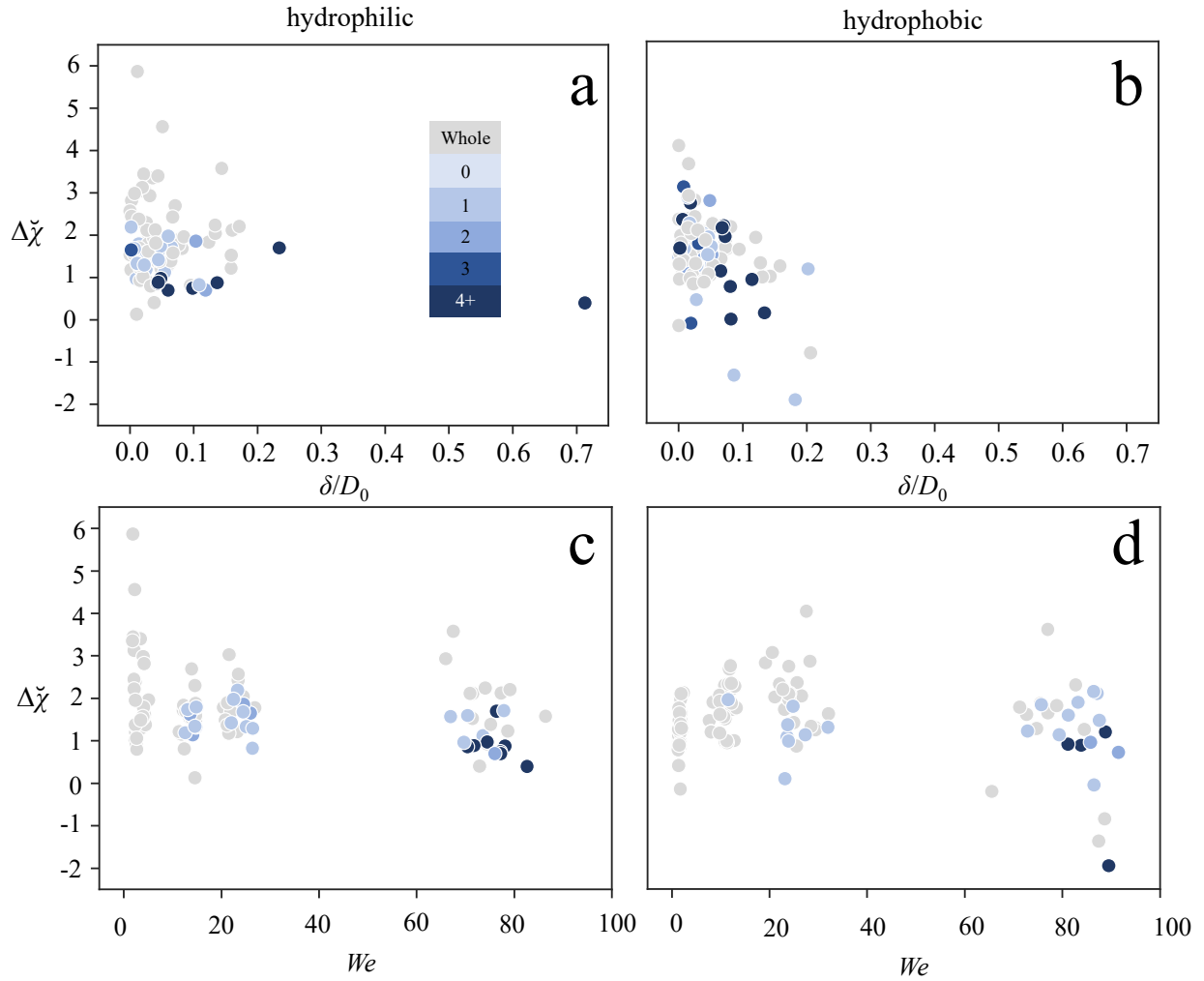


Figure S2: Change in spreading of liquid mass within the staggered array imposed by the second drop. **(a-b)** Dimensionless change in spread versus the dimensionless horizontal displacement of the second drop relative to the first drop. **(c-d)** Dimensionless change in spread versus the impact Weber number. Colors indicate the degree of fragmentation; refer to **Fig.7** of the paper. Plots on the left column correspond to hydrophilic fiber arrays, and those on the right column correspond to hydrophobic fiber arrays.

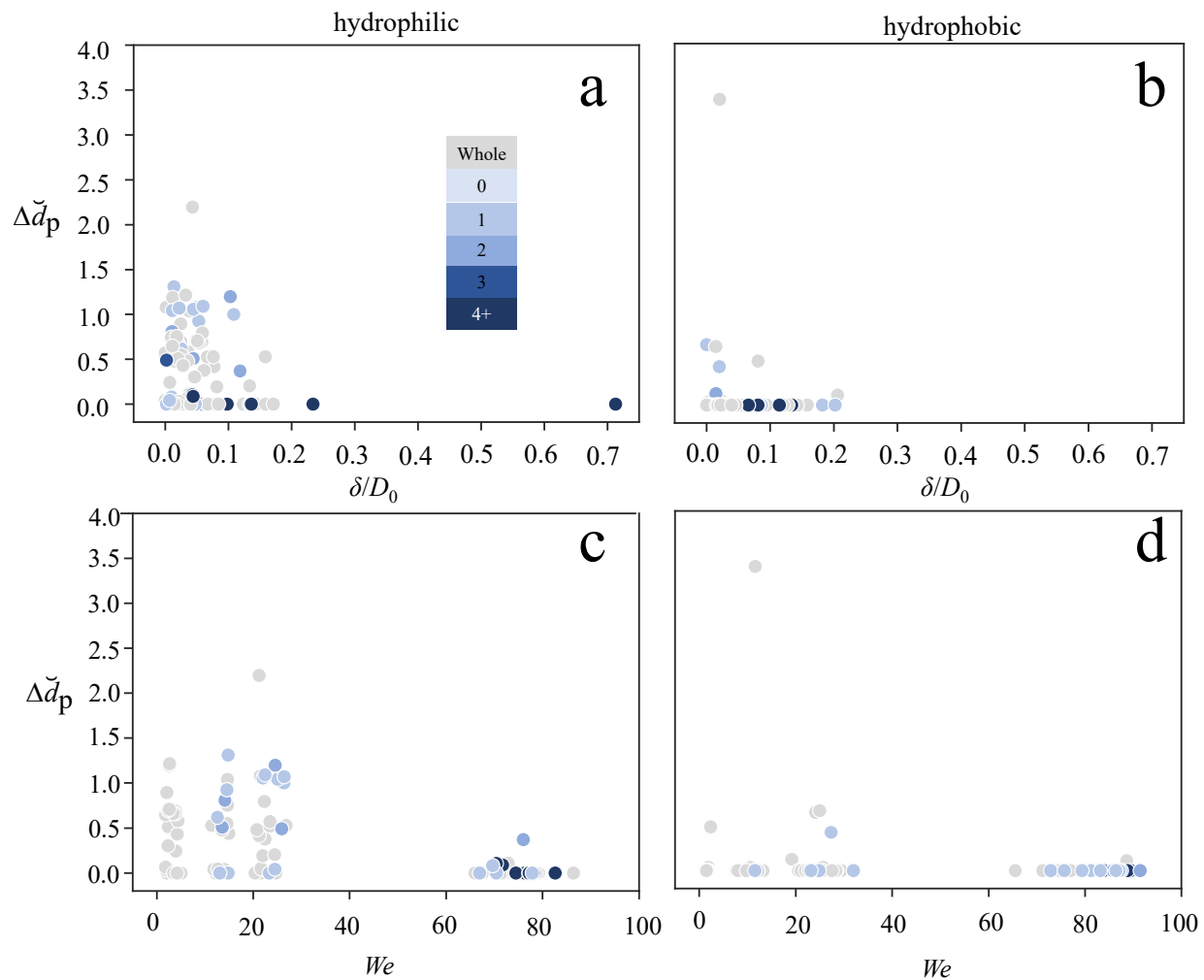


Figure S3: Change of penetration depth within the staggered array imposed by the second drop. **(a-b)** Dimensionless change in penetration depth versus the dimensionless horizontal displacement of the second drop relative to the first drop. **(c-d)** Dimensionless change in penetration depth versus impact Weber number. Colors indicate degree of fragmentation; refer to **Fig.7** of the paper. Plots on the left column correspond to hydrophilic fiber arrays, and those on the right column correspond to hydrophobic fiber arrays.