

Electronic Supplementary Material

Tribological mechanisms of slurry abrasive wear

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Supplementary Note 1

As shown in Fig. S1, because the particle size is different for each slurry, the viscosity would not be the same for 5 and 13 μm slurry. But the small differences in viscosity are not enough to make such a big difference in friction shown in Fig. 3.

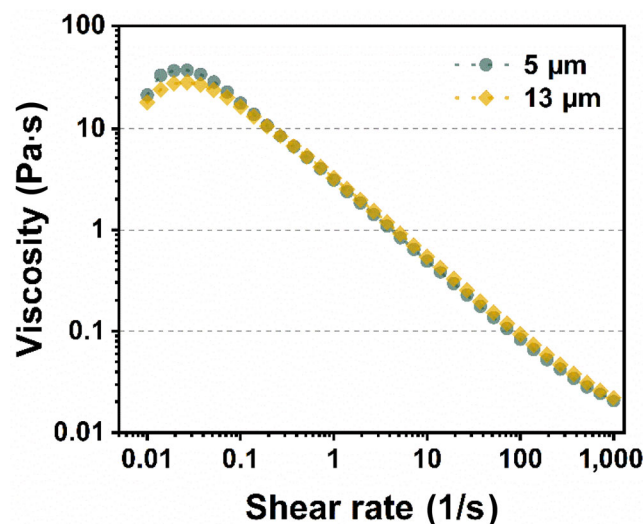


Fig. S1 Dynamic viscosity measurement of slurry.

Supplementary Note 2

The wear-induced volume loss of the discs was determined with the FRT MicroProf optical surface profilometer's data. The discs were scanned in a square area with a side length of 78 mm and a physical dimension of 500×500 px. As shown in Fig. S2, the cross-sectional area of the wear track was measured from eight fixed locations, and the result on each position is an average of 20 px. The average cross-sectional area of wear track can be then used to calculate the volumetric wear.

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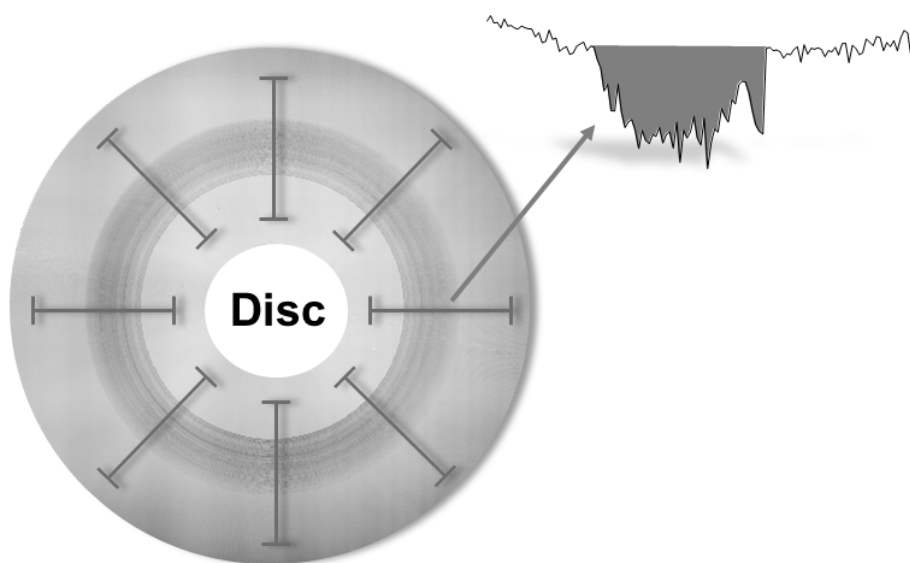


Fig. S2 Volume loss evaluation using FRT MicroProf optical surface profilometer's data.