Various surface functionalization of ultra-high-molecular-weight polyethylene based on fluorine-activation behavior

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Supporting Information

1. Surface roughness (Ra)

The 3D profiles of the UHMWPE surface are respectively given in Figure 1s. The height profiles along the diagonal (red line) are also shown in Figure 1s (d). The surface roughness (Ra) is calculated from the height profiles. The surface Ra value for virgin, F-4.0\% and OF-4.0\% is located between 0 and 1.0 μm, and it objectively illustrated that the surface roughness still remained before and after fluorination.

![Figure 1s](image-url). The surface roughness of (a) virgin, (b) F-4.0\%, (c) OF-4.0\% samples and (d) the height profiles along the diagonal (red line).