











FIG. 7. Schematic diagram of the interface reposition effects for Mn³⁺ exchange and crystal-field splitting. (a) Top view of the sample with a wavy surface. (b) Cross-sectional view of the sample thickness and surface profile. (c) Detailed view of the interface between the sample and the substrate, showing the effect of exchange and crystal-field splitting on the Mn³⁺ states. The Mn³⁺ bands are shown as horizontal lines, and the exchange and crystal-field splitting effects are indicated by arrows.

Mn³⁺ bands. R_{ex} and R_{cfs} denote exchange and crystal-field splitting, respectively.