

Supporting Information

Characteristics of the Discoloration Switching Phenomenon of 4H-SiC Single Crystals Grown by PVT Method Using ToF-SIMS and Micro-Raman Analysis

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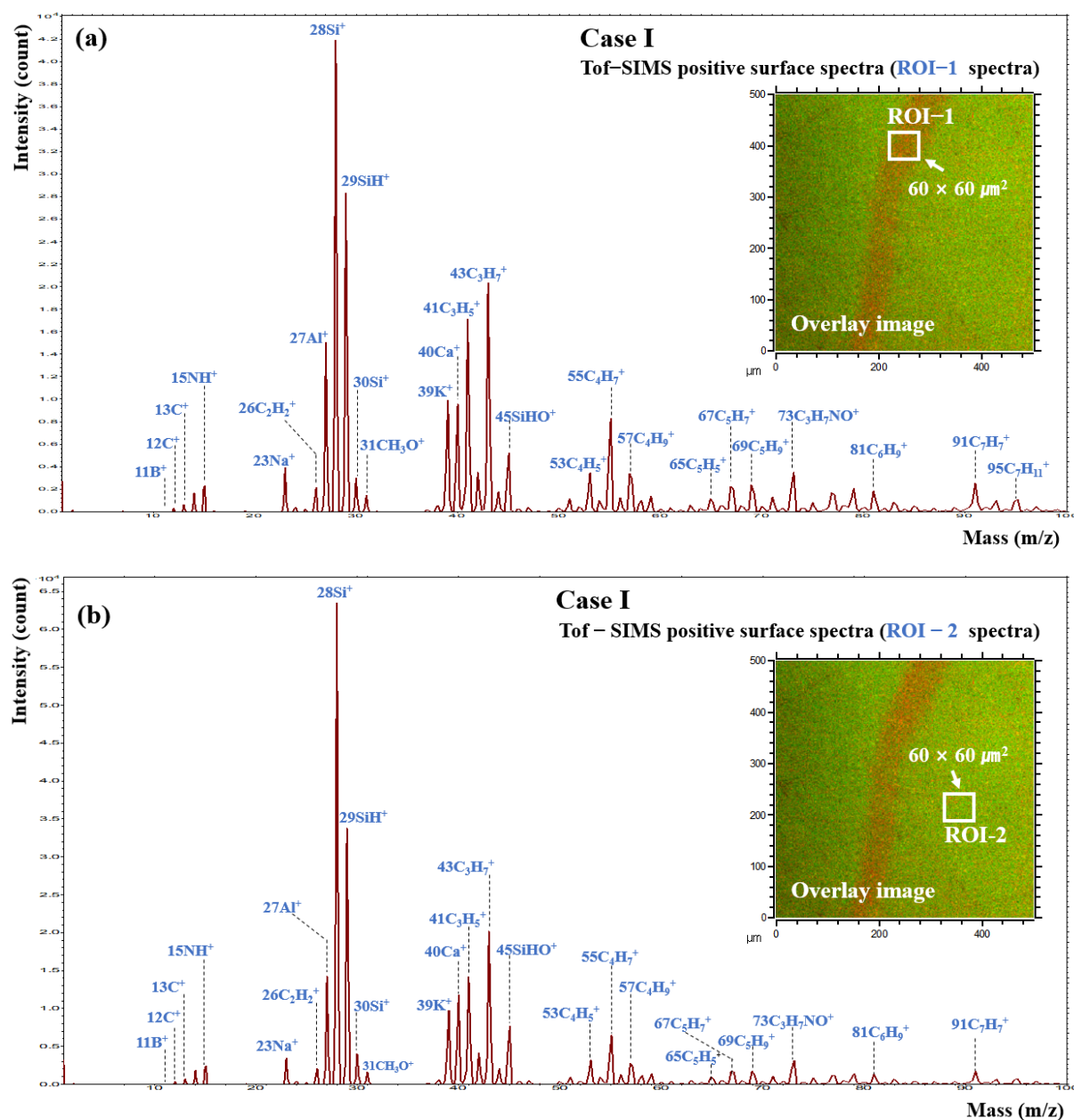


Figure S1: ToF-SIMS positive secondary ion spectra recorded over two different regions: (a) ROI-1 and (b) ROI-2. The spectra were acquired from the ToF-SIMS positive secondary ion images obtained using the ToF-SIMS fast imaging mode for Case I (bright).

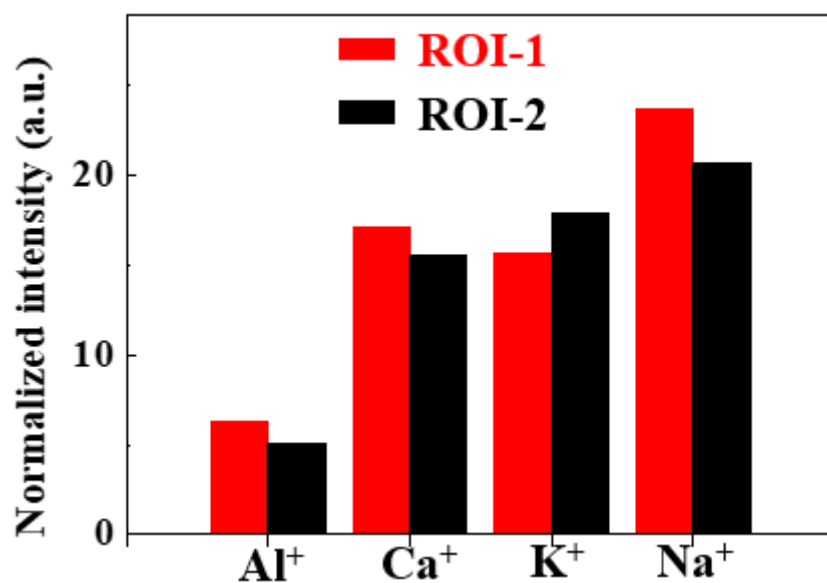


Figure S2: Comparison of the normalized ToF-SIMS peak intensities of the ToF-SIMS positive secondary ion spectra recorded over two different regions (ROI-1 and ROI-2) and acquired from ToF-SIMS positive secondary ion image obtained using the ToF-SIMS fast imaging mode for Case I (bright).

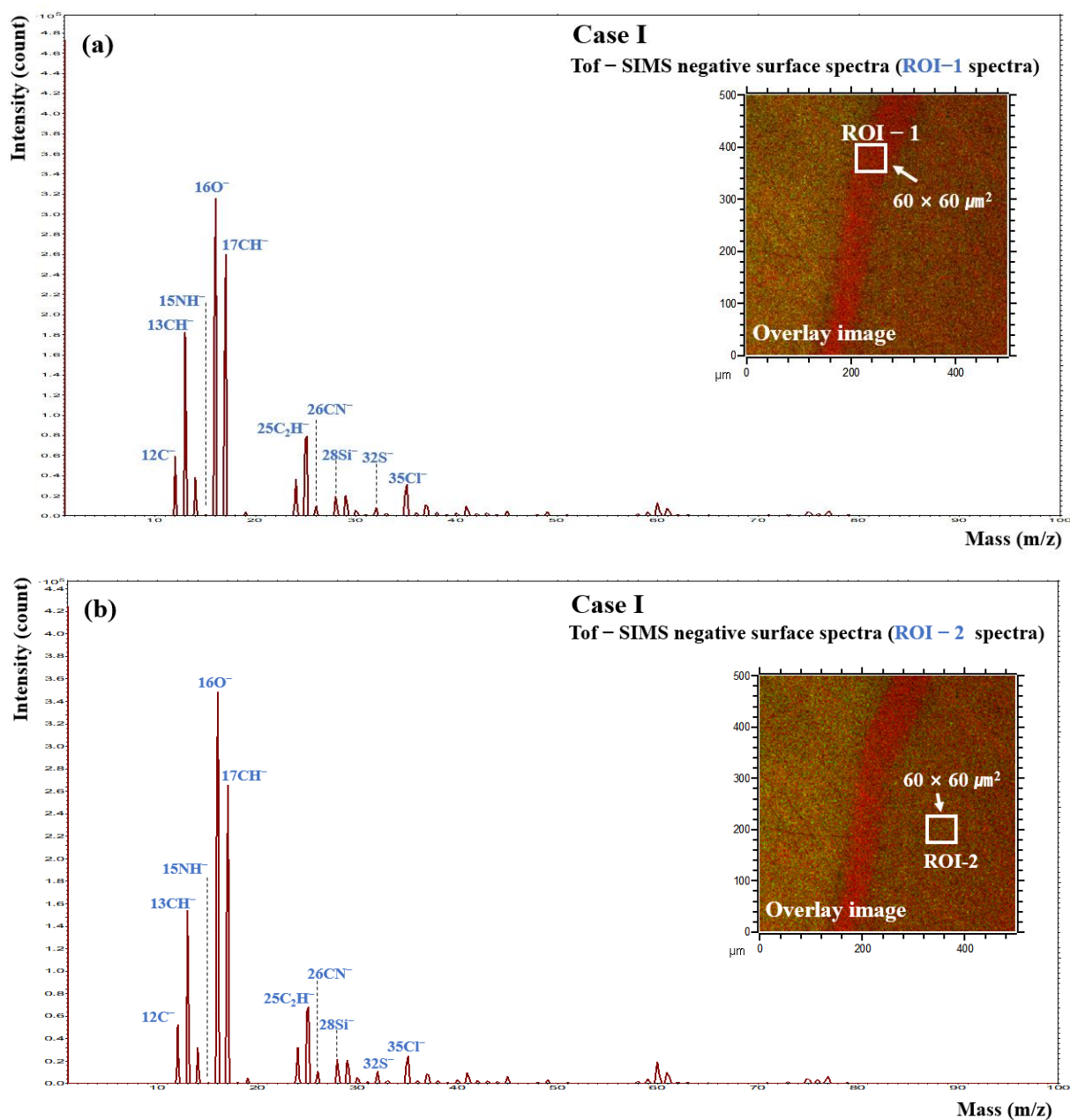


Figure S3: ToF-SIMS negative secondary ion spectra recorded over two different regions: (a) ROI-1 and (b) ROI-2. The spectra were acquired from the ToF-SIMS positive secondary ion images obtained using the ToF-SIMS fast imaging mode for Case I (bright).

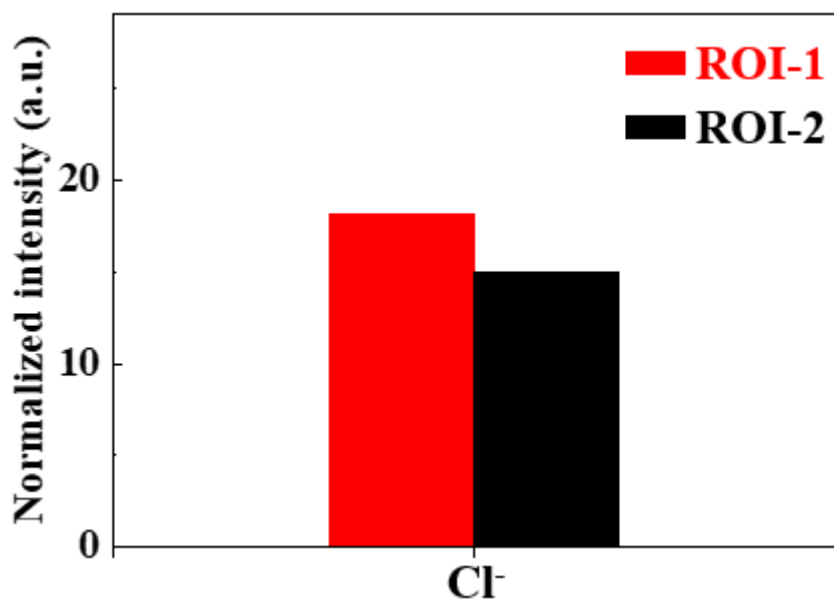


Figure S4: Comparison of the normalized ToF-SIMS peak intensities of the ToF-SIMS negative secondary ion spectra recorded over two different regions (ROI-1 and ROI-2) and acquired from ToF-SIMS positive secondary ion image obtained using the ToF-SIMS fast imaging mode for Case I (bright).

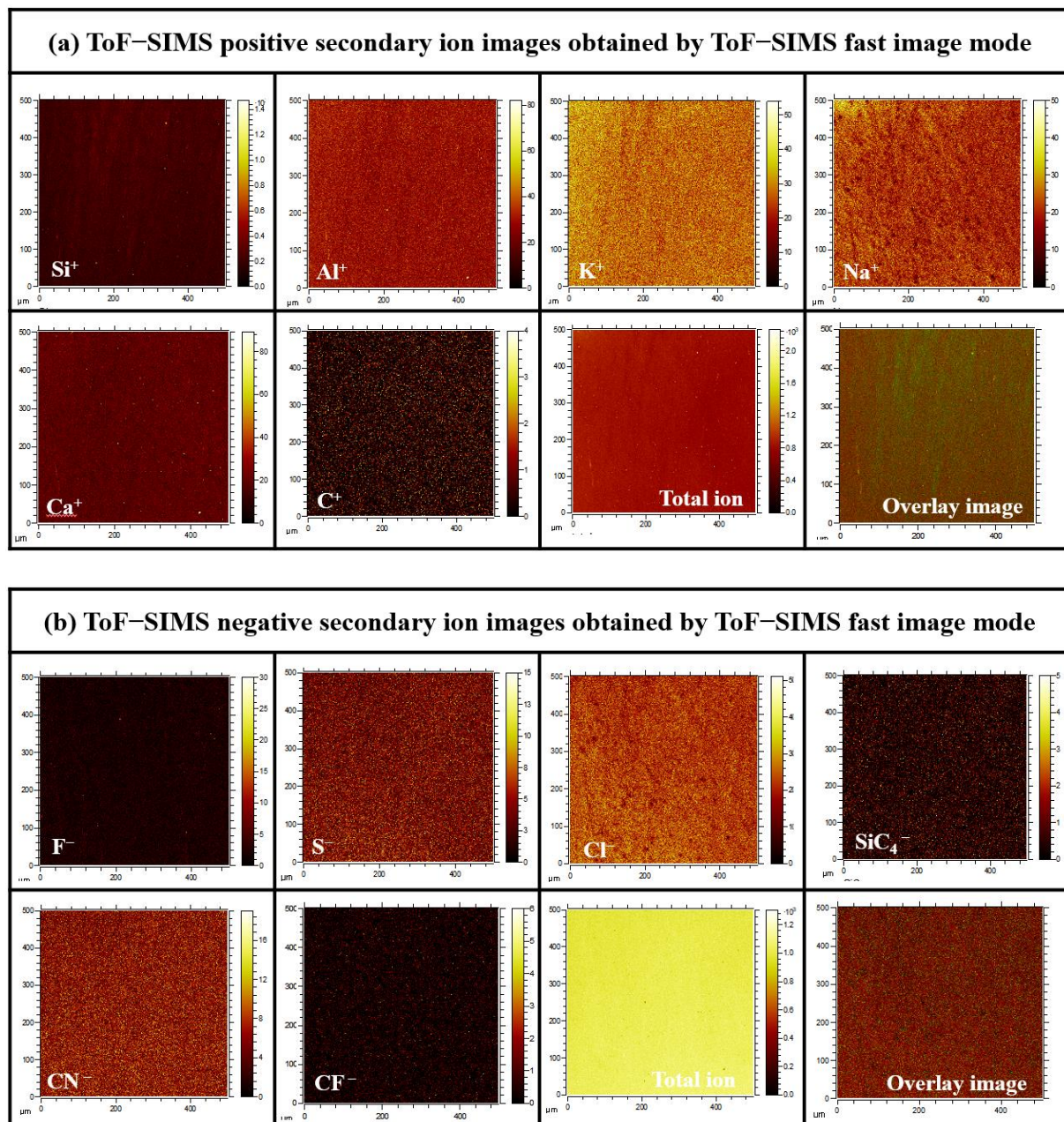


Figure S5: ToF-SIMS (a) positive and (b) negative secondary ion images obtained using the ToF-SIMS fast imaging mode for Case II (dark) in the obtained 4H-SiC single crystal.