

Supporting Information

Enhanced piezoelectric effect at the edges of stepped molybdenum disulfide nanosheets

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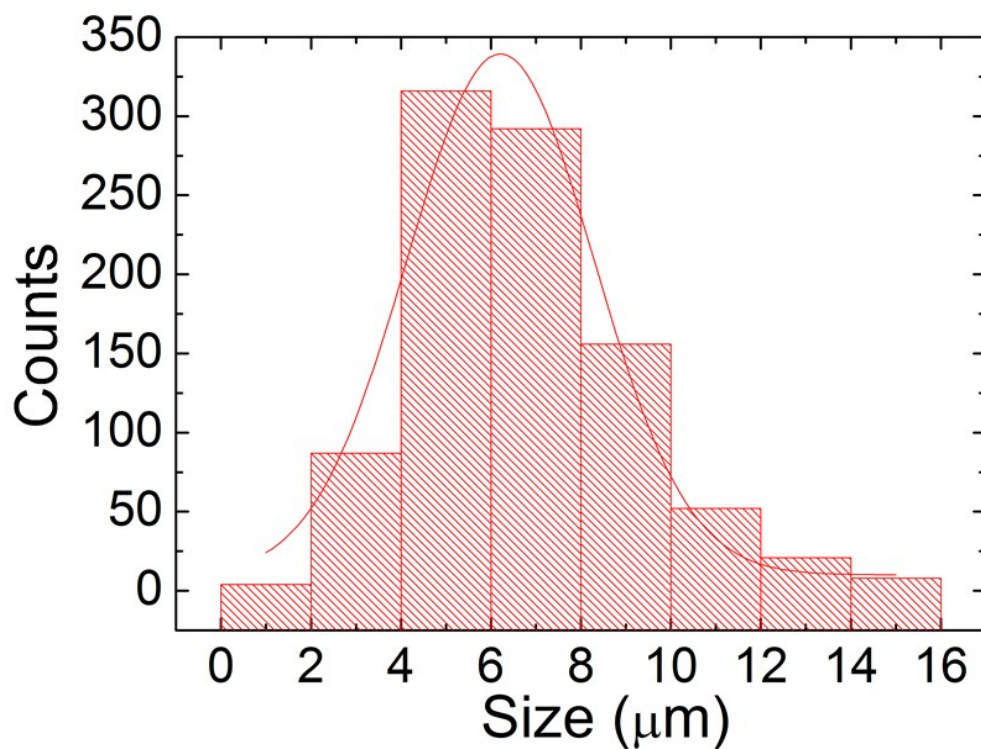


Figure S1: Statistical analysis of the MoS₂ flakes lateral size distribution. Over 1000 flakes have been considered.

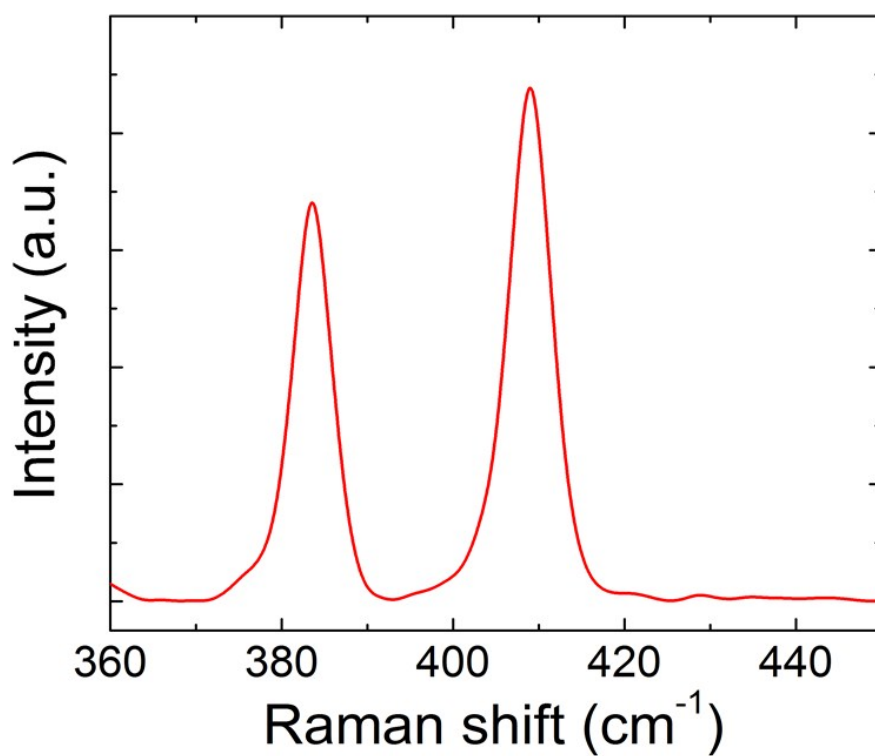


Figure S2: Raman spectra (measured by transferring the flakes on a 300 nm SiO₂ / Si wafer)

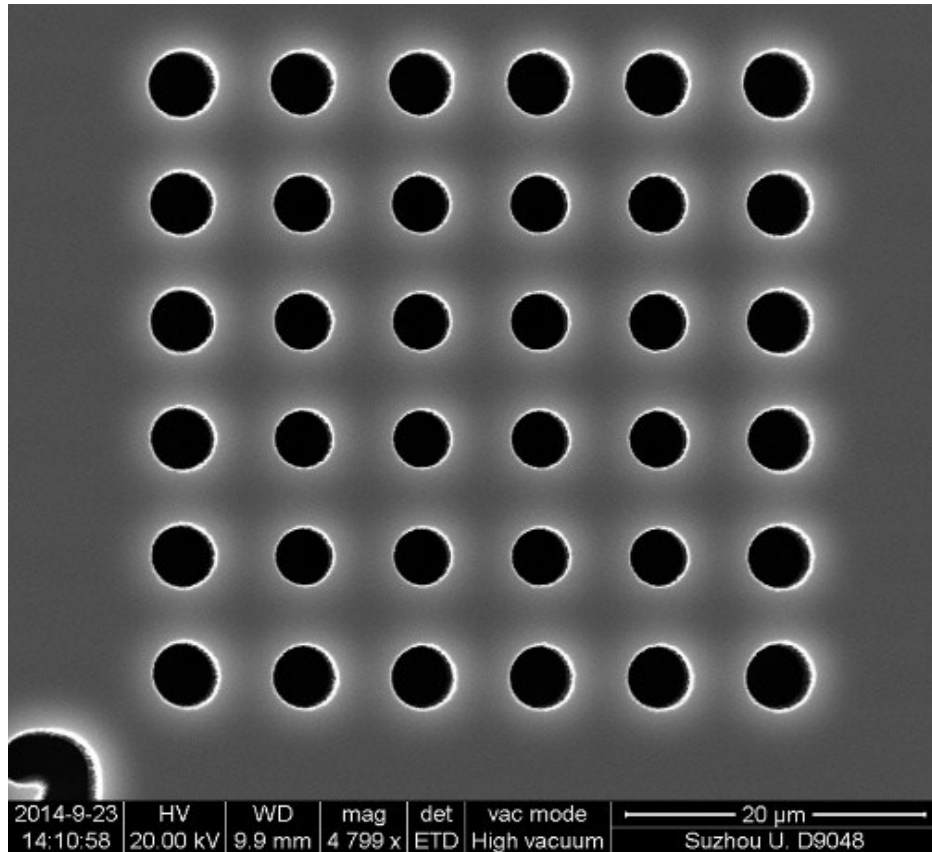


Figure S3: SEM image of a matrix of holes on the patterned n^{++} -Si substrate. The sample contains many matrices like this, with holes ranging between 2 and 10 micrometers in diameter.

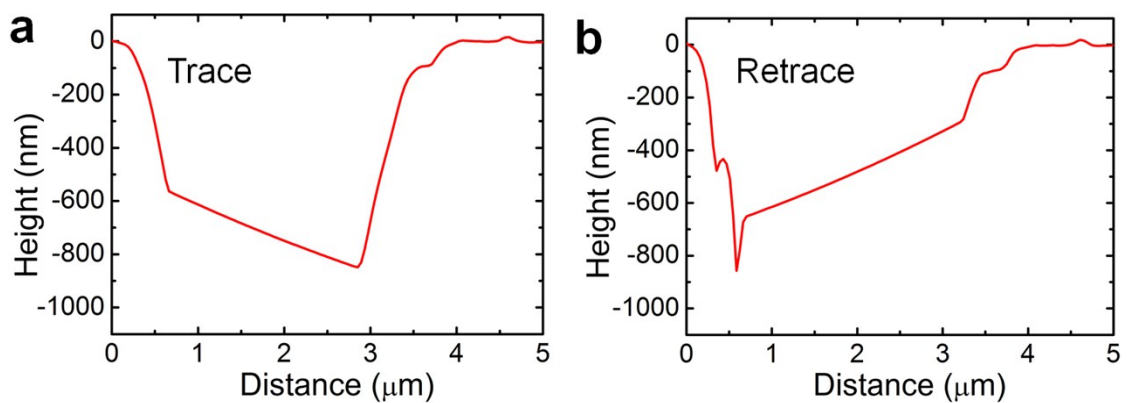


Figure S4: Cross section of a topographic map collected on a MoS_2 -covered hole during the trace (a) and retrace (b) scans. Under the low contact forces, the asymmetric shape of the cross-sections is related to the scan.

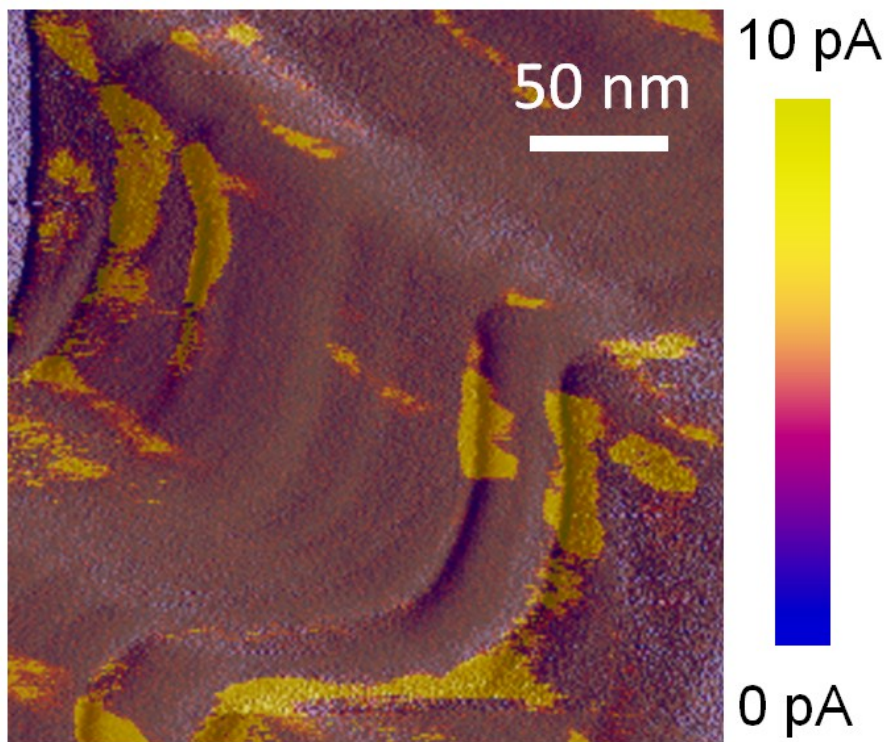


Figure S5: Superimposed deflection error and current maps in Figure 6 of the manuscript. The color scale only applies for the current image. In the deflection error image, the steps can be observed as background dark lines. The excellent correlation indicates the high piezoelectric activity of the MoS₂ edges.