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Who Needs an Electrical Back-Contact after All

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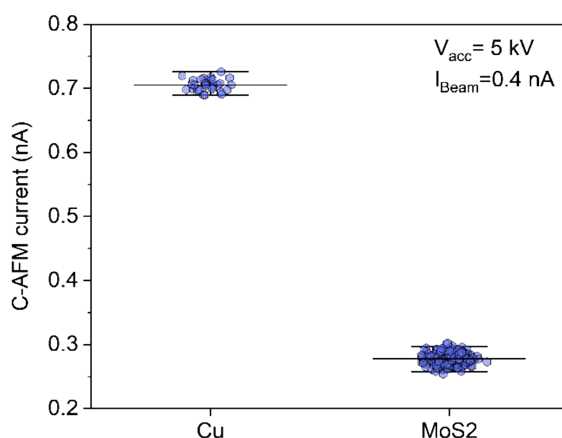

Figure S1. Detected C-AFM current upon e-beam irradiation on bulk Cu conductor and thin $MoS_2/SiO_2/Si$ samples from the same distance of 100 μm. Cu conductor is 10 μm thick whereas MoS_2 has 3-4 monolayers, nearly 2 nm thin.

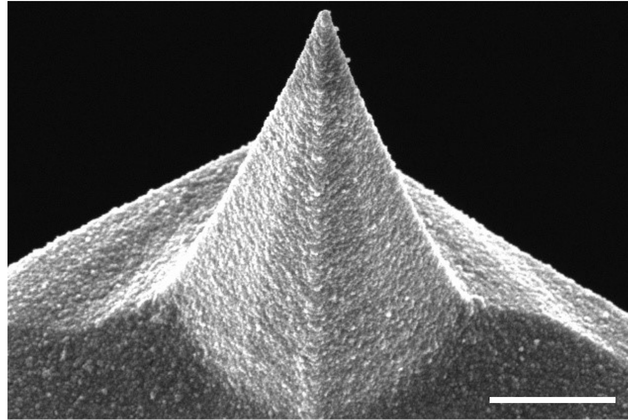

Figure S2. SEM image of a diamond-coated self-sensing probe. Scale bar is 2 μm.