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Supporting Information for "Reducing the V₂O₃(0001) Surface through Electron Bombardment – A Quantitative Structure Determination with I/V-LEED"

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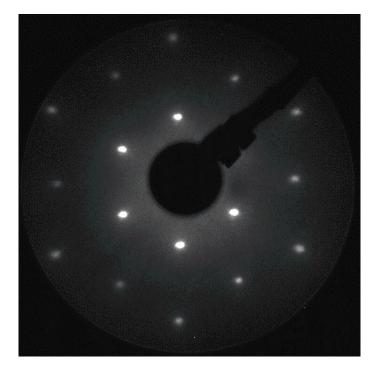


Figure S1. LEED pattern of the reduced $V_2O_3(0001)$ surface taken at an electron kinetic energy of 150 eV. The image contrast and brightness have been digitally modified to make sure that all spots are clearly visible.

😔 🛈 🕑 🏘 spot type $\Theta \ \Box \ \bigstar \ \Box \ \Theta$ $(0\ 0)$ П $\Phi \Leftrightarrow \Delta \bigtriangledown \Delta \Leftrightarrow \Phi$ Ο (1 0)(20)Δ ∇ (1 1)(30) \Diamond $(2\ 1)$ ☆ $\Phi \Leftrightarrow \Delta \bigtriangledown \Delta \Leftrightarrow \Phi$ * (4 0) (\mathbf{F}) $\bigcirc \Rightarrow \Rightarrow$ (\mathbf{F}) (\mathbf{F}) (31)Φ (22) \odot \bigcirc \odot

Figure S2. LEED pattern of $V_2O_3(0001)$ showing the effective symmetry. For details regarding the symmetry see reference 7 in the paper

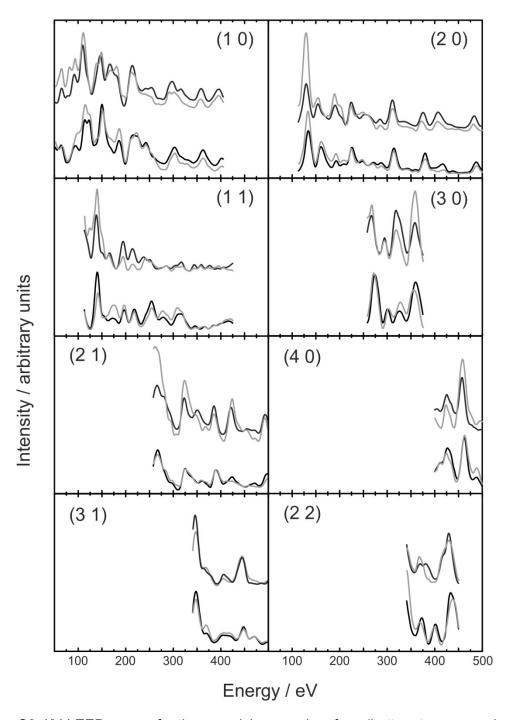


Figure S3. I/V-LEED curves for the vanadyl covered surface (bottom two curves in each graph) and the reduced surface (top two curves in each graph, cumulative electron dose 40 mC). The respective experimental data are shown in black and the calculated beams for the best-fit structure in grey. The structural model for the reduced surface is the single metal termination as described in the paper.

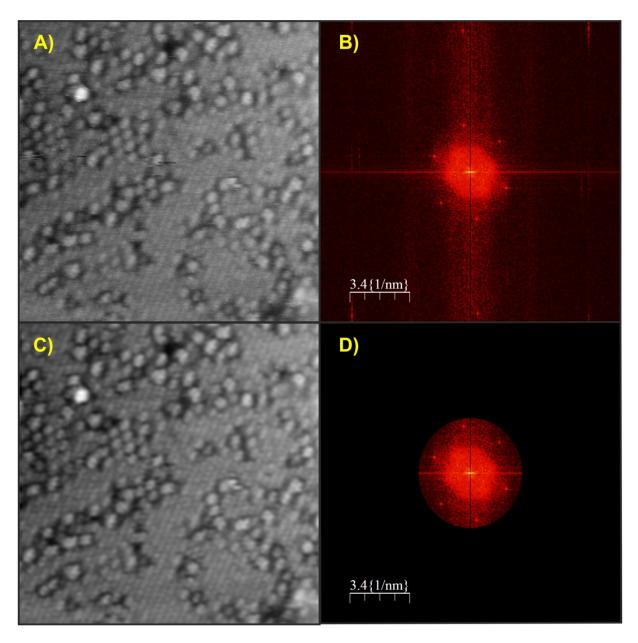


Figure S4. Raw STM image of the reduced surface (A) with the corresponding fourier transform (B) and the fourier filtered STM image (C) with the fourier transform (D).