

SUPPORTING INFORMATION:

The Impact of Steam on the Electronic Structure of the Selective Propane Oxidation Catalyst MoVTeNb Oxide (Orthorhombic M1 Phase)

Christian Heine,[†] Michael Hävecker,^{†,‡} Annette Trunschke,[†] Robert Schlögl,[†] and
Maik Eichelbaum^{*,†,¶}

*Department of Inorganic Chemistry, Fritz-Haber-Institut der Max-Planck-Gesellschaft,
Faradayweg 4-6, 14195 Berlin, Germany, Solar Energy Research, Helmholtz-Zentrum Berlin /
BESSY II, Albert-Einstein-Straße 15, 12489 Berlin, Germany, and BasCat, UniCat BASF
JointLab, TU Berlin, Marchstraße 6, 10587 Berlin, Germany*

E-mail: me@fhi-berlin.mpg.de

Phone: +49 (0)30 84134566. Fax: +49 (0)30 84134405

*To whom correspondence should be addressed

[†]Fritz-Haber-Institut

[‡]Helmholtz-Zentrum Berlin

[¶]BasCat, UniCat BASF JointLab

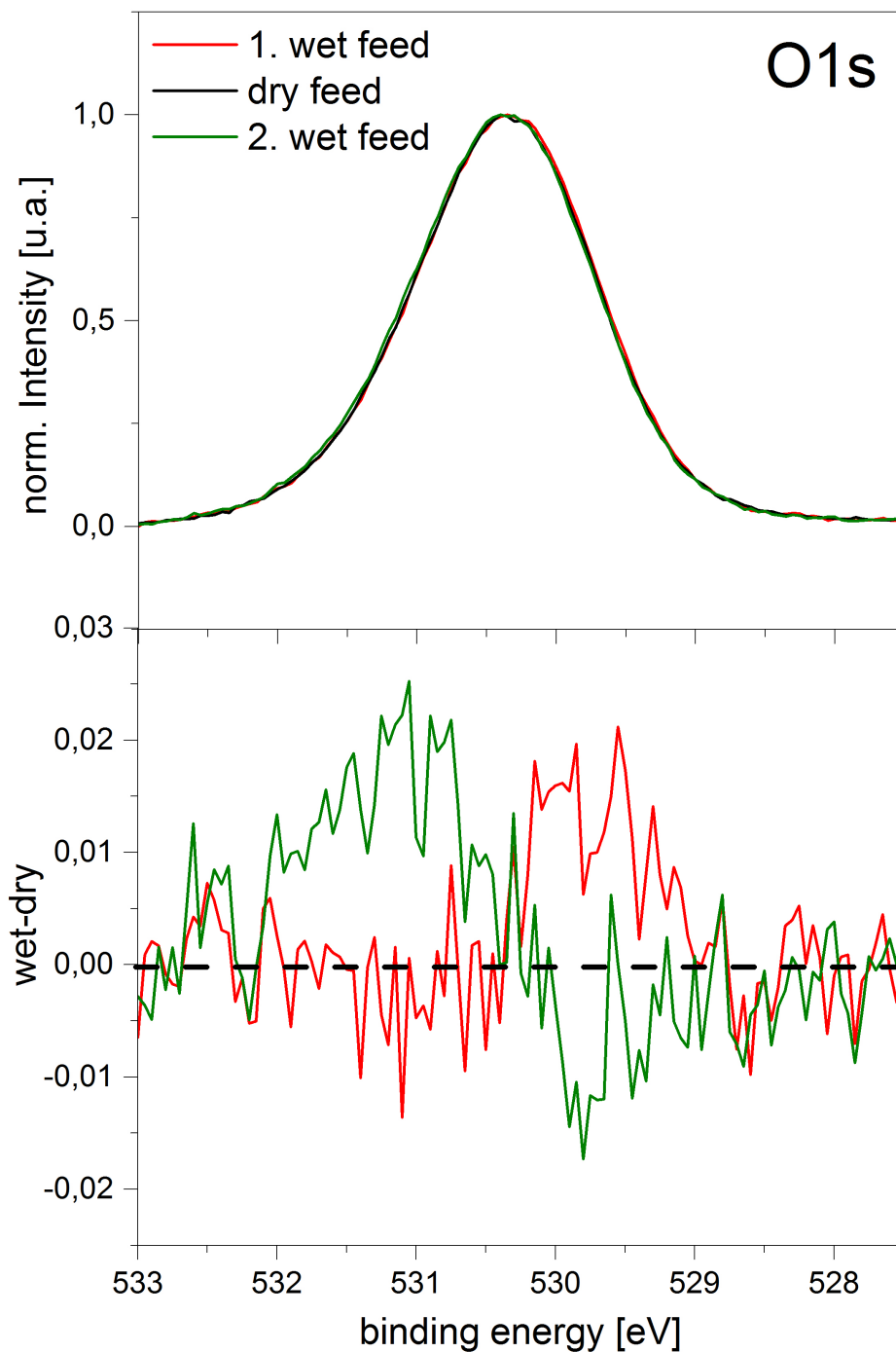


Figure S 1: O1s spectra of the MoVTaNbO_x M1 phase at 400°C, 25 Pa in dry (1 Nml/min propane, 2 Nml/min oxygen and 3 Nml/min helium) and wet feed (1 Nml/min propane, 2 Nml/min oxygen and 3 Nml/min steam) and difference between the spectra measured in the two feeds.

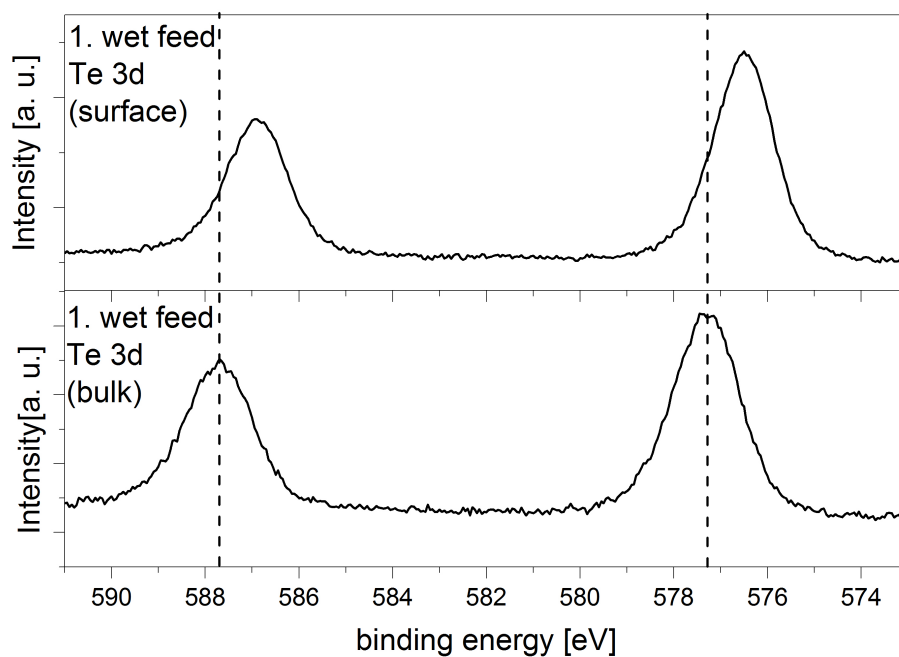


Figure S 2: Surface (kinetic energy: 150 eV) and bulk sensitively (kinetic energy: 650 eV) measured Te3d core level spectra of the MoVTeNbO_x M1 phase at 400°C, 25 Pa in wet feed.