

Spontaneous Etching of Group V and VI Metal Oxides by Deoxygenation Using Thionyl Chloride

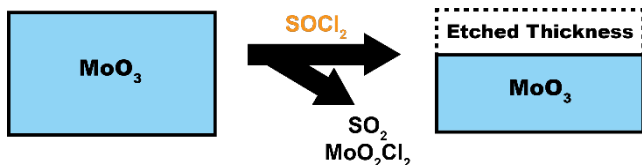


Figure 1. Spontaneous etching of MoO₃ by SOCl₂ to produce MoO₂Cl₂ and SO₂ as volatile etch products.

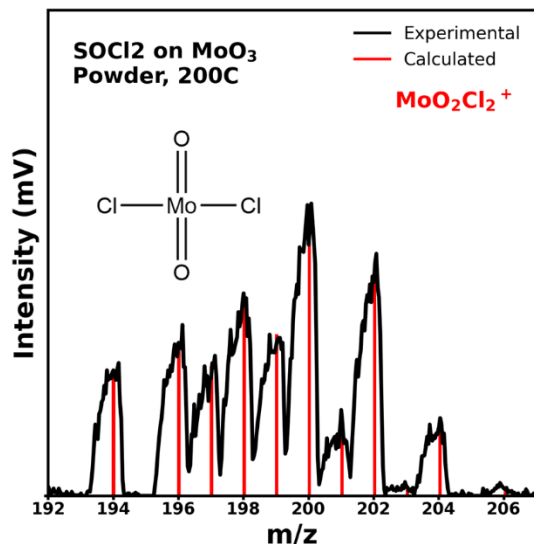


Figure 2. QMS spectrum of MoO₂Cl₂⁺ ion intensities during SOCl₂ exposure on MoO₃ at 200°C. Experimental intensities are in excellent agreement with calculated intensities based on the natural abundances of the isotopes.



Figure 3. Spontaneous etching of VO₂ by SOCl₂ to produce VOCl₃ and SO₂ as volatile etch products.

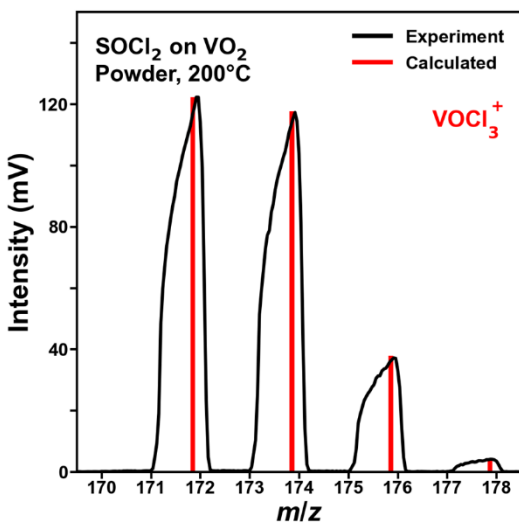


Figure 4. QMS spectrum of VOCl₃⁺ ion intensities during SOCl₂ exposure on VO₂ at 200°C. Experimental intensities are in excellent agreement with calculated intensities based on the natural abundances of the isotopes.