Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supporting materials for PCCP

Photochemistry of Nitrate Chemisorbed on Various Metal Oxide Surfaces

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Product ratios on various metal oxide surfaces

In general, NOx is the primary product of the heterogeneous photolysis of HNO_3 on the metal oxide surfaces examined. Product ratios show that, for most surfaces, NO_2 is the major product early in the reaction and, along with NO, the major product of the entire heterogeneous photolysis. No quantifiable HONO was observed on SiO_2.

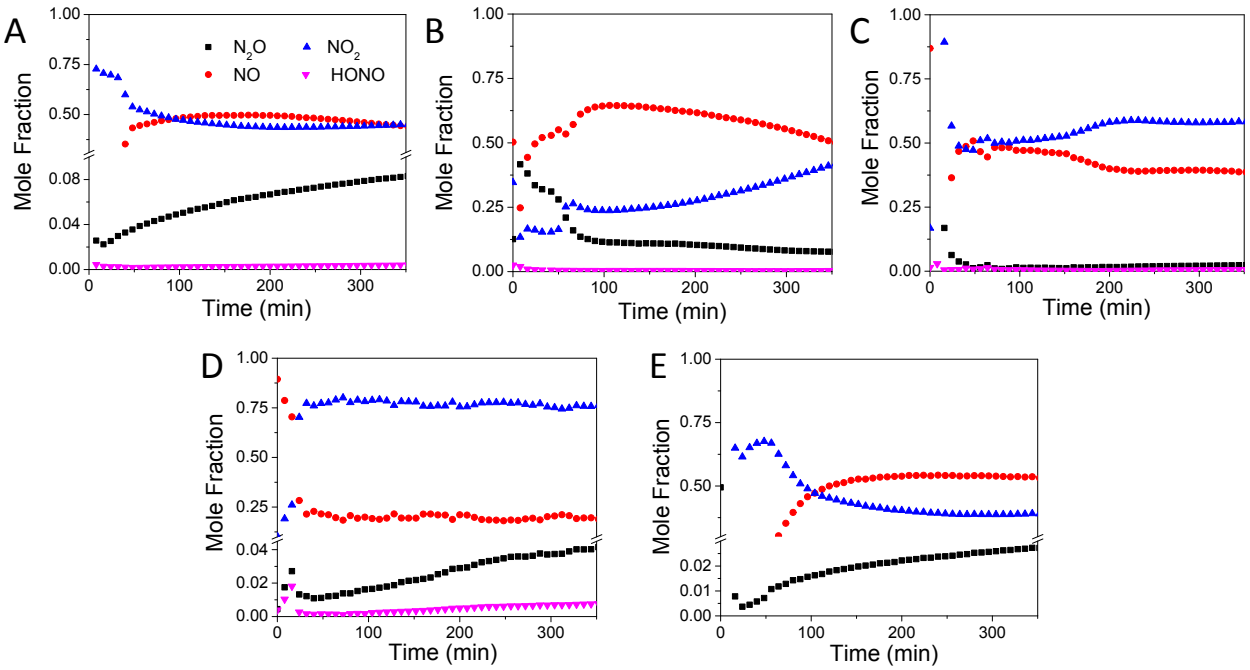

Figure S1. Mole fractions for gas products produced from the heterogeneous photolysis of chemisobed nitrate on (A) TiO_2, (B) ZnO, (C) Fe_2O_3, (D) Al_2O_3, and (E) SiO_2. For clarity, only 16% of the data are plotted.