Chemical models of terrestrial exoplanets
Bruce Fegley, Jr. and Laura Schaefer, Washington University, Saint Louis

We use thermodynamic calculations to model atmospheric chemistry on terrestrial exoplanets that are hot enough for chemical equilibria between the atmosphere and lithosphere, as on Venus. The results of our calculations place constraints on abundances of spectroscopically observable gases, the surface temperature and pressure, and the mineralogy of the planetary surface.