SURFACE COMPOSITIONS OF THE ICY SATELLITES. J. B. Dalton, Carl Sagan Center, SETI Institute, 515 N. Whisman Road, Mountain View CA 94043, dalton at carlsagancenter.org.

The icy satellites of the Outer Solar System exhibit a range of chemical compositions. Over the past decade, a combination of ground- and spacecraft-based remote sensing observations, supported by laboratory work and theoretical calculations, has steadily shed additional light on the makeup of these enigmatic bodies. From the ubiquitous water ice to the bizarre products of photolysis and radiolysis, commonalities and differences among bodies emerge which testify to the similarities in formation histories and evolutionary processes. In so doing, they reveal the extraordinary breadth of possibilities inherent in the process of planetary formation.