

## Chapter 22

### Transition Metals and Coordination Compounds



The color of ruby is caused by a splitting of the  $d$ -orbital energy levels in  $\text{Cr}^{3+}$  by the host crystal.

"Chemistry must become the astronomy of the molecular world."

—Alfred Werner (1866–1919)

#### ✓ Learning Outcomes

- 22.1 The Colors of Rubies and Emeralds
- 22.2 Properties of Transition Metals
- 22.3 Coordination Compounds
- 22.4 Structure and Isomerization
- 22.5 Bonding in Coordination Compounds
- 22.6 Applications of Coordination Compounds

Key Learning Outcomes

Not for Distribution