The development of catalytic systems for the oxidation of organic compounds continues to be of great importance. There is an ongoing and increasing demand for methods that are selective, proceed under mild conditions, and adhere to green chemistry principles.

- Including the latest developments in the field
- Selective coverage of more well-established methods
- Coverage of systems based on metal catalysts, organocatalysts, and biomimetic oxidation
- Particular focus on asymmetric processes
- Discussion of scope, limitations, and mechanism of the reactions
- Including key experimental procedures
- Typical examples of target synthesis are often provided to show the utility and inspire further applications