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Nota di contenuto	Introduction -- Synthesis of Ti-MWW zeolite -- Post-synthesis modification of Ti-MWW: a door to diversity -- Catalytic properties of Ti-MWW in selective oxidation reactions -- Conclusions and Prospects.
Sommario/riassunto	This book provides a comprehensive review of a new generation of selective oxidation titanosilicate catalysts with the MWW topology (Ti-MWW) based on the research achievements of the past 12 years. It gives an overview of the synthesis, structure modification and catalytic properties of Ti-MWW. Ti-MWW can readily be prepared by means of direct hydrothermal synthesis with crystallization-supporting agents, using dual-structure-directing agents and a dry-gel conversion technique. It also can be post-synthesized through unique reversible structure transformation and liquid-phase isomorphous substitution. The structural conversion of Ti-MWW into the materials usable for processing large molecules is summarized. Taking advantage of the

structure diversity of the lamellar precursor of Ti-MWW, it can be fully or partially delaminated, and undergo interlayer silylation to obtain a novel structure with larger porosity. In the selective oxidation (alkene epoxidation and ketone/aldehyde ammoximation) with hydrogen peroxide or organic peroxide as an oxidant, the unique catalytic properties of Ti-MWW are described in comparison to conventional titanosilicates such as TS-1 and Ti-Beta.