

Compound	Oxidant	TOF mmol O ₂ /mol Mn	References
Optimistic Ca-Mn oxide	Ce(IV)	3.0	27
Nano scale Mn oxide within NaY zeolite	Ce(IV)	2.62	28
Layered Mn-calcium oxide	Ce(IV)	2.2	29
Nanolayered Mn oxide/CNT,G or GO	Ce(IV)	0.5-2.6	This work
Layered Mn-Al, Zn, K, Cd and Mg oxide	Ce(IV)	0.8-2.2	30,31
CaMn ₂ O ₄ ·H ₂ O	Ce(IV)	0.54	32
Amorphous Mn	Ru(bpy) ₃ ³⁺	0.06	33
Oxides	Ce(IV)	0.52	
CaMn ₂ O ₄ ·4H ₂ O	Ce(IV)	0.32	32
Mn oxide nanoclusters	Ru(bpy) ₃ ³⁺	0.28	34
Mn oxide-coated montmorillonite	Ce(IV)	0.22	35
Nano-sized α-Mn ₂ O ₃	Ce(IV)	0.15	22b
Octahedral Molecular Sieves	Ru(bpy) ₃ ³⁺	0.11	33
	Ce(IV)	0.05	
MnO ₂ (colloid)	Ce(IV)	0.09	36
α-MnO ₂ nanowires	Ru(bpy) ₃ ³⁺	0.059	37
CaMn ₃ O ₆	Ce(IV)	0.046	38
CaMn ₄ O ₈	Ce(IV)	0.035	39
α-MnO ₂ nanotubes	Ru(bpy) ₃ ³⁺	0.035	37
Mn ₂ O ₃	Ce(IV)	0.027	32
β-MnO ₂ nanowires	Ru(bpy) ₃ ³⁺	0.02	37
Ca ₂ Mn ₃ O ₈	Ce(IV)	0.016	39
CaMnO ₃	Ce(IV)	0.012	39
Nano-sized λ-MnO ₂	Ru(bpy) ₃ ³⁺	0.03	40
Bulk α-MnO ₂	Ru(bpy) ₃ ³⁺	0.01	37
Mn Complexes	Ce(IV)	0.01-0.6	41-42
PSII	Sunlight	100-400 × 10 ³	43,44