

Subject Index

Acidity

Unsupported $\text{MoO}_3\text{--Fe}_2\text{O}_3$ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Adamantane

Oxidation of cyclohexane by tert-butyl hydroperoxide catalyzed by manganese(II) *N,N'*-ethylene bis(salicylideneaminato) and analogous complexes (Ganeshpure, P.A. (113) L423)

Aerobic allylic acetoxylation

Aerobic palladium-heteropolyacid-catalyzed allylic acetoxylation of cyclohexene (Grennberg, H. (113) 355)

Alkane hydroxylation

Alkane hydroxylation reactions catalysed by binuclear manganese and iron complexes (Tetard, D. (113) 223)

Alkane oxidation

Manganese porphyrins covalently bound to silica and montmorillonite K10 as efficient catalysts for alkene and alkane oxidation by hydrogen peroxide (Martinez-Lorente, M.A. (113) 343)

Alkanes

Nonradical tetrabutylammonium monopersulfate oxidation of hydrocarbons catalyzed by $[\text{Mn}_3\text{O}_4\text{bipy}_4(\text{H}_2\text{O})_2](\text{ClO}_4)_4$ (Wessel, J. (113) 13)

Liquid phase oxidation reactions over chromium silicalite-1 (CrS-1) molecular sieves (Singh, A.P. (113) 489)

Alkene epoxidation

tert-Butylhydroperoxide epoxidation of alkenes catalysed by ruthenium complex of 1,4,7-trimethyl-1,4,7-triazacyclononane (Cheng, W.-C. (113) 311)

Alkene oxidation

Manganese porphyrins covalently bound to silica and montmorillonite K10 as efficient catalysts for alkene and alkane oxidation by hydrogen peroxide (Martinez-Lorente, M.A. (113) 343)

Alkenes

Enantiomeric epoxidation of 4-chlorostyrene with H_2O_2 catalysed by robust chloromanganese(III)-5,10,15,20-tetrakis-[2-chloro-6-(2,3,4,6-tetraacetyl-*O*- β -*D*-glucosyl)phenyl]porphyrins (Vilain-De-shayes, S. (113) 201)

Alkylation

Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)

AOT reverse micelles

Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)

Aromatic diamines

Catalytic oxidation reactions of aromatic diamines by transition metal complexes (Porta, F. (113) 359)

Aromatics and olefins bromination

A mechanistic investigation of bromoperoxidases mimicking systems. Evidence of a hypobromite-like vanadium intermediate from experimental data and ab initio calculations (Conte, V. (113) 175)

Asymmetric epoxidation

Mn-salen catalyst, competitor of enzymes, for asymmetric epoxidation (Katsuki, T. (113) 87)

Enantiomeric epoxidation of 4-chlorostyrene with H_2O_2 catalysed by robust chloromanganese(III)-5,10,15,20-tetrakis-[2-chloro-6-(2,3,4,6-tetraacetyl-*O*- β -*D*-glucosyl)phenyl]porphyrins (Vilain-De-shayes, S. (113) 201)

Pentacoordinated manganese(III) dihydrosalen complexes as biomimetic oxidation catalysts (Berkessel, A. (113) 321)

Asymmetric oxidation catalysts

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

Autoxidation

Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects (Cheng, C.-C. (113) 379)

Axial ligand

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Basicity

Unsupported $\text{MoO}_3\text{--Fe}_2\text{O}_3$ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Biomimetic oxidation

Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)

Photocatalytic oxidation of cyclohexane by $(\text{nBu}_4\text{N})_4\text{W}_{10}\text{O}_{32}/\text{Fe(III)porphyrins}$ integrated systems (Maldotti, A. (113) 147)

Biomimetics

Biomimetic catalysis in a larger context. Correlation of structure and function with genesis (Hill, C.L. (113) 185)

Borohydride ion

Mechanisms for (porphyrinato)iron(III)-catalyzed oxygenation of styrenes by O_2 in presence of BH_4^- (Takeuchi, M. (113) 51)

Bromoperoxidase

A mechanistic investigation of bromoperoxidases mimicking systems. Evidence of a hypobromite-like vanadium intermediate from experimental data and ab initio calculations (Conte, V. (113) 175)

n-Butane labeling

On the mechanism of *n*-butane disproportionation over platinum supported on tungstated zirconia: Isotopic labeling studies (Larsen, G. (113) 517)

tert-Butyl hydroperoxide

Oxidation of cyclohexane by tert-butyl hydroperoxide catalyzed by manganese(II) *N,N'*-ethylene bis(salicylideneaminato) and analogous complexes (Ganeshpure, P.A. (113) L423)

Catalysis

Biomimetic catalysis in a larger context. Correlation of structure and function with genesis (Hill, C.L. (113) 185)

Enantioselective catalysis of epoxidation by metalloporphyrins: application to enantioselective synthesis (Campbell, L.A. (113) 293)

Catalyst

tert-Butylhydroperoxide epoxidation of alkenes catalysed by ruthenium complex of 1,4,7-trimethyl-1,4,7-triazacyclononane (Cheng, W.-C. (113) 311)

Catalytic oxidation

Catalytic oxidation reactions of aromatic diamines by transition metal complexes (Porta, F. (113) 359)

Catechols

Copper-catalyzed *ortho*-oxidation of phenols by dioxygen (tyrosinase mimics) do yields catechols as primary products (Maumy, M. (113) 159)

Chiral complexes

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

Chiral induction

Enantiomeric epoxidation of 4-chlorostyrene with H₂O₂ catalysed by robust chloromanganese(III)-5,10,15,20-tetrakis-[2-chloro-6-(2,3,4,6-tetraacetyl-*O*-β-D-glucosyl)phenyl]porphyrins (Vilain-Deshayes, S. (113) 201)

Chiral porphyrins

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Chromium silicalite-1

Liquid phase oxidation reactions over chromium silicalite-1 (CrS-1) molecular sieves (Singh, A.P. (113) 489)

Cluster

Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)

CO isotopic exchange

Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)

Copper

Copper-catalyzed *ortho*-oxidation of phenols by dioxygen (tyrosinase mimics) do yields catechols as primary products (Maumy, M. (113) 159)

Copper-containing oxide catalysts

Mechanisms for hydrogenation of acetone to isopropanol and of carbon oxides to methanol over copper-containing oxide catalysts (Yurieva, T.M. (113) 455)

Crown ethers

Mn(III)-tetraarylporphyrins bearing covalently bonded crown-ethers: synthesis and catalytic activity in 1-dodecene epoxidation promoted by aqueous HOCl/OCl⁻ (Banfi, S. (113) 369)

Cu/ZnO catalyst

Higher oxyanate formation from ethanol on Cu/ZnO catalysts: Synergism and reaction mechanism (Chung, M.-J. (113) 507)

Cyclohexane

Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)

Oxidation of cyclohexane by tert-butyl hydroperoxide catalyzed by manganese(II) *N,N'*-ethylene bis(salicylideneaminato) and analogous complexes (Ganeshpure, P.A. (113) L423)

Cyclohexanol

Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)

Cyclohexene

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

[2.2]-*p*-Cyclophane-4-carbaldehyde resolution

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

Cytochrome P450

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and athiolate ligand (Aissaoui, H. (113) 393)

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Decarboxylation

Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Decomposition

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Dehydrogenations

Biomimetic catalysis in a larger context. Correlation of structure and function with genesis (Hill, C.L. (113) 185)

Dendrimer

Shape selective epoxidation of alkenes by metalloporphyrin-dendrimers (Bhyrappa, P. (113) 109)

Dihydrosalen complexes

Pentacoordinated manganese(III) dihydrosalen complexes as biomimetic oxidation catalysts (Berkessel, A. (113) 321)

3,4-dimethoxybenzyl alcohol

Oxidation of 3,4-dimethoxybenzyl alcohol in water catalyzed by iron tetrasulfophthalocyanine (Hampton, K.W. (113) 167)

Dioxygen

Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects (Cheng, C.-C. (113) 379)

Disproportionation mechanism

On the mechanism of *n*-butane disproportionation over platinum supported on tungstated zirconia: Isotopic labeling studies (Larsen, G. (113) 517)

DNA

Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects (Cheng, C.-C. (113) 379)

1-Dodecene epoxidation

Mn(III)-tetraarylporphyrins bearing covalently bonded crown-ethers: synthesis and catalytic activity in 1-dodecene epoxidation promoted by aqueous HOCl/OCl⁻ (Banfi, S. (113) 369)

Electrocatalysis

Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)

Electropolymerized films

Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)

Enantioselective

Enantioselective catalysis of epoxidation by metalloporphyrins: application to enantioselective synthesis (Campbell, L.A. (113) 293)

Enantioselectivity

Enantioselective epoxidation of olefins by single-oxygen atom donors catalyzed by manganese-glycoconjugated porphyrins (Vilain-Deshayes, S. (113) 23)

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

Enzyme Models

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and athiolate ligand (Aissaoui, H. (113) 393)

Epoxidation

Enantioselective epoxidation of olefins by single-oxygen atom donors catalyzed by manganese-glycoconjugated porphyrins (Vilain-Deshayes, S. (113) 23)

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

Shape selective epoxidation of alkenes by metalloporphyrin-dendrimers (Bhyrappa, P. (113) 109)

A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)

Aerobic oxidation of hydrocarbons catalyzed by electronegative iron salen complexes (Böttcher, A. (113) 191)

Enantiomeric epoxidation of 4-chlorostyrene with H₂O₂ catalysed by robust chloromanganese(III)-5,10,15,20-tetrakis-[2-chloro-6-(2,3,4,6-tetraacetyl-*O*-β-D-glucosyl)phenyl]porphyrins (Vilain-Deshayes, S. (113) 201)

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Enantioselective catalysis of epoxidation by metalloporphyrins: application to enantioselective synthesis (Campbell, L.A. (113) 293)

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Ethylsulfide

The solvent effect in the sulfoxidation of thioethers by hydrogen

peroxide using Ti-containing zeolites as catalysts (Hulea, V. (113) 499)

Ethylsulfoxide

The solvent effect in the sulfoxidation of thioethers by hydrogen peroxide using Ti-containing zeolites as catalysts (Hulea, V. (113) 499)

Extraction

Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)

Fe₂O₃

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

FePc

Membrane occluded catalysts: a higher order mimic with improved performance (Parton, R.F. (113) 283)

Fe-tetraarylporphyrins

Catalytic oxidation reactions of aromatic diamines by transition metal complexes (Porta, F. (113) 359)

Functionalized Mn(III)-porphyrins

Mn(III)-tetraarylporphyrins bearing covalently bonded crown-ethers: synthesis and catalytic activity in 1-dodecene epoxidation promoted by aqueous HOCl/OCl⁻ (Banfi, S. (113) 369)

Glycosylated metalloporphyrins

Enantioselective epoxidation of olefins by single-oxygen atom donors catalyzed by manganese-glycoconjugated porphyrins (Vilain-Deshayes, S. (113) 23)

Glycosylated porphyrins

Enantiomeric epoxidation of 4-chlorostyrene with H₂O₂ catalysed by robust chloromanganese(III)-5,10,15,20-tetrakis-[2-chloro-6-(2,3,4,6-tetraacetyl-*O*-β-D-glucosyl)phenyl]porphyrins (Vilain-Deshayes, S. (113) 201)

Hammett equations

A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)

Heme-thiolate proteins

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and athiolate ligand (Aissaoui, H. (113) 393)

N-Heterocyclic ligand

A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)

Heteropolyacid

Aerobic palladium-heteropolyacid-catalyzed allylic acetoxylation of cyclohexene (Grennberg, H. (113) 355)

Higher oxygenate formation from ethanol

Higher oxygenate formation from ethanol on Cu/ZnO catalysts: Synergism and reaction mechanism (Chung, M.-J. (113) 507)

Hydroformylation

Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)

Hydrogenation of acetone to isopropanol

Mechanisms for hydrogenation of acetone to isopropanol and of carbon oxides to methanol over copper-containing oxide catalysts (Yurieva, T.M. (113) 455)

Hydrogen peroxide

Oxidation of 3,4-dimethoxybenzyl alcohol in water catalyzed by iron tetrasulfophthalocyanine (Hampton, K.W. (113) 167)

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Manganese porphyrins covalently bound to silica and montmorillonite K10 as efficient catalysts for alkene and alkane oxidation by hydrogen peroxide (Martinez-Lorente, M.A. (113) 343)

The solvent effect in the sulfoxidation of thioethers by hydrogen peroxide using Ti-containing zeolites as catalysts (Hulea, V. (113) 499)

Hydroperoxyde

Alkane hydroxylation reactions catalysed by binuclear manganese and iron complexes (Tetard, D. (113) 223)

Hydrophilicity

Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)

Hydroxylation

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Iron porphyrin catalyzed hydroxylation of ethylbenzene by ozone (Gross, Z. (113) 231)

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Hypobromite-like vanadium complex

A mechanistic investigation of bromoperoxidases mimicking systems. Evidence of a hypobromite-like vanadium intermediate from experimental data and ab initio calculations (Conte, V. (113) 175)

Hypochlorite

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Indole-3-acetic acid

Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)

Intercalated metallomacrocycles

Catalytic properties of biomimetic metallomacrocycles intercalated in layered double hydroxides and smectite clay: the importance of edge-site access (Chibwe, M. (113) 249)

IR

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Iron

A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)

Aerobic oxidation of hydrocarbons catalyzed by electronegative iron salen complexes (Böttcher, A. (113) 191)

Iron porphyrin catalyzed hydroxylation of ethylbenzene by ozone (Gross, Z. (113) 231)

Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)

Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed

by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)

Iron complex

Alkane hydroxylation reactions catalysed by binuclear manganese and iron complexes (Tetard, D. (113) 223)

Iron(III)porphyrins

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and athiolate ligand (Aissaoui, H. (113) 393)

Iron-porphyrins

Photocatalytic oxidation of cyclohexane by (nBu₄N)₄W₁₀O₃₂/Fe(III)porphyrins integrated systems (Maldotti, A. (113) 147)

Iron tetrasulfophthalocyanine

Oxidation of 3,4-dimethoxybenzyl alcohol in water catalyzed by iron tetrasulfophthalocyanine (Hampton, K.W. (113) 167)

Isotopic effect

On the mechanism of *n*-butane disproportionation over platinum supported on tungstated zirconia: Isotopic labeling studies (Larsen, G. (113) 517)

Jacobsen catalyst

Membrane occluded catalysts: a higher order mimic with improved performance (Parton, R.F. (113) 283)

Kemp's acid

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and athiolate ligand (Aissaoui, H. (113) 393)

Ketenylidene

Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)

Kinetics

Kinetic investigations of oxidative degradation of aromatic pollutant 2,4,6-trichlorophenol by an iron-porphyrin complex, a model of ligninase (Shukla, R.S. (113) 45)

Layered double hydroxides

Catalytic properties of biomimetic metallomacrocycles intercalated in layered double hydroxides and smectite clay: the importance of edge-site access (Chibwe, M. (113) 249)

Ligand

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Macrocycle

Dioxygen chemistry of nickel(II) dioxopentamacrocyclic complexes: Substituent and medium effects (Cheng, C.-C. (113) 379)

Manganese

Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)

Nonradical tetrabutylammonium monopersulfate oxidation of hydrocarbons catalyzed by [Mn₃O₄bipy₄(H₂O)₂](ClO₄)₄ (Wessel, J. (113) 13)

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)

Manganese catalysts

Pentacoordinated manganese(III) dihydrosalen complexes as biomimetic oxidation catalysts (Berkessel, A. (113) 321)

Manganese complex

Alkane hydroxylation reactions catalysed by binuclear manganese and iron complexes (Tetard, D. (113) 223)

Manganese(II) complexes

Oxidation of cyclohexane by tert-butyl hydroperoxide catalyzed by manganese(II) *N,N'*-ethylene bis(salicylideneamino) and analogous complexes (Ganeshpure, P.A. (113) L423)

Manganese(III) porphyrin

A manganese(III) porphyrin/rhodium(III) bipyridine/formate catalyst system for the reductive activation of molecular oxygen (Gosling, P.A. (113) 257)

Manganese porphyrin

Manganese porphyrins covalently bound to silica and montmorillonite K10 as efficient catalysts for alkene and alkane oxidation by hydrogen peroxide (Martinez-Lorente, M.A. (113) 343)

Metalloporphyrin

Shape selective epoxidation of alkenes by metalloporphyrin-dendrimers (Bhyrappa, P. (113) 109)

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Metalloporphyrin catalyzed reaction

Kinetic investigations of oxidative degradation of aromatic pollutant 2,4,6-trichlorophenol by an iron-porphyrin complex, a model of ligninase (Shukla, R.S. (113) 45)

Metalloporphyrins

Enantioselective epoxidation of olefins by single-oxygen atom donors catalyzed by manganese-glycoconjugated porphyrins (Vilain-Deshayes, S. (113) 23)

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

Tryptophan dioxygenase-like catalysis of achiral and chiral manganese(II) porphyrins for dioxygen-inserted indole-ring opening reactions (Sagawa, T. (113) 269)

Enantioselective catalysis of epoxidation by metalloporphyrins: application to enantioselective synthesis (Campbell, L.A. (113) 293)

Methanol synthesis from carbon oxides

Mechanisms for hydrogenation of acetone to isopropanol and of carbon oxides to methanol over copper-containing oxide catalysts (Yurieva, T.M. (113) 455)

Micelles

Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)

Mn

Catalytic oxidation reactions of aromatic diamines by transition metal complexes (Porta, F. (113) 359)

[Mn(bpy)₂]²⁺

Membrane occluded catalysts: a higher order mimic with improved performance (Parton, R.F. (113) 283)

Mn-salen catalyst

Mn-salen catalyst, competitor of enzymes, for asymmetric epoxidation (Katsuki, T. (113) 87)

Modified electrodes

Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)

Molecular oxygen

A manganese(III) porphyrin/rhodium(III) bipyridine/formate catalyst system for the reductive activation of molecular oxygen (Gosling, P.A. (113) 257)

Monopersulphate

A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)

Montmorillonite

Manganese porphyrins covalently bound to silica and montmorillonite K10 as efficient catalysts for alkene and alkane oxidation by hydrogen peroxide (Martinez-Lorente, M.A. (113) 343)

MoO₃

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Mo(VI) peroxy complex

Catalytic oxidation reactions of aromatic diamines by transition metal complexes (Porta, F. (113) 359)

Multidentate ligand

A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)

NaOCl epoxidation

Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)

NaOCl promoted epoxidation

Mn(III)-tetraarylporphyrins bearing covalently bonded crown-ethers: synthesis and catalytic activity in 1-dodecene epoxidation promoted by aqueous HOCl/OCl⁻ (Banfi, S. (113) 369)

Nickel

Dioxygen chemistry of nickel(II) dioxopentaazamacrocyclic complexes: Substituent and medium effects (Cheng, C.-C. (113) 379)

Olefins

Aerobic oxidation of hydrocarbons catalyzed by electronegative iron salen complexes (Böttcher, A. (113) 191)

O-O bond

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Oxidation

Nonradical tetrabutylammonium monopersulfate oxidation of hydrocarbons catalyzed by [Mn₃O₄bipy₄(H₂O)₂](ClO₄)₄ (Wessel, J. (113) 13)

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)

Oxidation of 3,4-dimethoxybenzyl alcohol in water catalyzed by iron tetrasulfophthalocyanine (Hampton, K.W. (113) 167)

- Aerobic oxidation of hydrocarbons catalyzed by electronegative iron salen complexes (Böttcher, A. (113) 191)
- State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)
- Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)
- tert-Butylhydroperoxide epoxidation of alkenes catalysed by ruthenium complex of 1,4,7-trimethyl-1,4,7-triazacyclononane (Cheng, W.-C. (113) 311)
- Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)
- The solvent effect in the sulfoxidation of thioethers by hydrogen peroxide using Ti-containing zeolites as catalysts (Hulea, V. (113) 499)
- Oxidation of cyclohexane by tert-butyl hydroperoxide catalyzed by manganese(II) *N,N'*-ethylene bis(salicylideneaminato) and analogous complexes (Ganeshpure, P.A. (113) L423)
- Oxidation catalysis
- Shape selective epoxidation of alkenes by metalloporphyrin-dendrimers (Bhyrappa, P. (113) 109)
- Oxidation catalyst
- Photocatalytic oxidation of cyclohexane by (nBu₄N)₄W₁₀O₃₂/Fe(III)porphyrins integrated systems (Maldotti, A. (113) 147)
- Oxidation reactions
- Liquid phase oxidation reactions over chromium silicalite-1 (CrS-1) molecular sieves (Singh, A.P. (113) 489)
- Oxide
- Oxide-supported triruthenium ketenylidene clusters and their catalytic properties (Xiao, F.-S. (113) 427)
- Oxo complexes
- A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)
- Oxo transfer reaction
- Mn-salen catalyst, competitor of enzymes, for asymmetric epoxidation (Katsuki, T. (113) 87)
- Oxygen
- Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)
- A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)
- Oxygen activation
- Photocatalytic oxidation of cyclohexane by (nBu₄N)₄W₁₀O₃₂/Fe(III)porphyrins integrated systems (Maldotti, A. (113) 147)
- Oxygenation
- Mechanisms for (porphyrinato)iron(III)-catalyzed oxygenation of styrenes by O₂ in presence of BH₄⁻ (Takeuchi, M. (113) 51)
- A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)
- Ozone
- Iron porphyrin catalyzed hydroxylation of ethylbenzene by ozone (Gross, Z. (113) 231)
- Palladium
- Aerobic palladium-heteropolyacid-catalyzed allylic acetoxylation of cyclohexene (Grennberg, H. (113) 355)
- PDMS
- Membrane occluded catalysts: a higher order mimic with improved performance (Parton, R.F. (113) 283)
- Peracid
- Alkane hydroxylation reactions catalysed by binuclear manganese and iron complexes (Tetard, D. (113) 223)
- Peroxidase
- A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)
- Peroxidase models
- Pentacoordinated manganese(III) dihydrosalen complexes as biomimetic oxidation catalysts (Berkessel, A. (113) 321)
- Peroxide
- Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)
- Peroxo vanadium complex
- A mechanistic investigation of bromoperoxidases mimicking systems. Evidence of a hypobromite-like vanadium intermediate from experimental data and ab initio calculations (Conte, V. (113) 175)
- Phenol
- A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)
- Phenol oxidation
- Catalytic properties of biomimetic metallomacrocycles intercalated in layered double hydroxides and smectite clay: the importance of edge-site access (Chibwe, M. (113) 249)
- Phenols
- Copper-catalyzed *ortho*-oxidation of phenols by dioxygen (tyrosinase mimics) do yields catechols as primary products (Maumy, M. (113) 159)
- Photocatalysis
- Photocatalytic oxidation of cyclohexane by (nBu₄N)₄W₁₀O₃₂/Fe(III)porphyrins integrated systems (Maldotti, A. (113) 147)
- Phthalocyanine
- Catalytic properties of biomimetic metallomacrocycles intercalated in layered double hydroxides and smectite clay: the importance of edge-site access (Chibwe, M. (113) 249)
- Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)
- Platinum catalysts
- Synthesis and characterization of a new platinum supported catalyst based on poly-[acrylamide-co-{3-(acryloylamino)propyltrimethylammoniumchloride}] as carrier (Baumgarten, E. (113) 469)
- Podand
- A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)
- Polymer anchored catalysts
- Synthesis and characterization of a new platinum supported catalyst based on poly-[acrylamide-co-{3-(acryloylamino)propyltri-

- methylammoniumchloride] as carrier (Baumgarten, E. (113) 469)
- Polymer films
- Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)
- Polyoxometalate
- Biomimetic catalysis in a larger context. Correlation of structure and function with genesis (Hill, C.L. (113) 185)
- Polyoxotungstate
- Photocatalytic oxidation of cyclohexane by $(n\text{Bu}_4\text{N})_4\text{W}_{10}\text{O}_{32}/\text{Fe(III)porphyrins}$ integrated systems (Maldotti, A. (113) 147)
- Polypeptide
- Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin–pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)
- Poly(siloxane)-supported catalysts
- The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)
- Porphyrin
- Synthesis of chiral Mn(III)-meso-tetrakis-[2.2]-*p*-cyclophanylporphyrin: a new catalyst for enantioselective epoxidation (Banfi, S. (113) 77)
- Shape selective epoxidation of alkenes by metalloporphyrin-dendrimers (Bhyrappa, P. (113) 109)
- A comparative mechanistic study of the oxidation of phenols in aqueous solution by oxomanganese(IV) and oxoiron(IV) 5,10,15,20-tetrakis(2-*N*-methylpyridyl)porphyrin (Kamp, N.W.J. (113) 131)
- State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)
- Catalytic properties of biomimetic metallomacrocycles intercalated in layered double hydroxides and smectite clay: the importance of edge-site access (Chibwe, M. (113) 249)
- Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin–pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)
- Porphyrin complexes
- Mechanisms for (porphyrinato)iron(III)-catalyzed oxygenation of styrenes by O_2 in presence of BH_4^- (Takeuchi, M. (113) 51)
- Porphyrins
- Electropolymerized manganese porphyrin films as catalytic electrode materials for biomimetic oxidations with molecular oxygen (Bedioui, F. (113) 3)
- Enantioselective epoxidation of olefins by single-oxygen atom donors catalyzed by manganese-glycoconjugated porphyrins (Vilain-Deshayes, S. (113) 23)
- Enantiomeric epoxidation of 4-chlorostyrene with H_2O_2 catalysed by robust chloromanganese(III)-5,10,15,20-tetrakis-[2-chloro-6-(2,3,4,6-tetraacetyl-*O*- β -D-glucosyl)phenyl]porphyrins (Vilain-Deshayes, S. (113) 201)
- Iron porphyrin catalyzed hydroxylation of ethylbenzene by ozone (Gross, Z. (113) 231)
- Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)
- The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and thiolate ligand (Aissaoui, H. (113) 393)
- Potassium monopersulfate
- Oxidation of 3,4-dimethoxybenzyl alcohol in water catalyzed by iron tetrasulfophthalocyanine (Hampton, K.W. (113) 167)
- 2-propanol
- Unsupported $\text{MoO}_3\text{-Fe}_2\text{O}_3$ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)
- Pyridine *N*-oxide
- Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin–pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)
- Quinone
- A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)
- Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin–pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)
- Reductive activation
- A manganese(III) porphyrin/rhodium(III) bipyridine/formate catalyst system for the reductive activation of molecular oxygen (Gosling, P.A. (113) 257)
- Rhodium(III) bipyridine
- A manganese(III) porphyrin/rhodium(III) bipyridine/formate catalyst system for the reductive activation of molecular oxygen (Gosling, P.A. (113) 257)
- Ring-opening dioxygenase-like catalysis of achiral and chiral manganese(II) porphyrins for dioxygen-inserted indole-ring opening reactions (Sagawa, T. (113) 269)
- Ru-binap
- Membrane occluded catalysts: a higher order mimic with improved performance (Parton, R.F. (113) 283)
- Ruthenium
- tert-Butylhydroperoxide epoxidation of alkenes catalysed by ruthenium complex of 1,4,7-trimethyl-1,4,7-triazacyclononane (Cheng, W.-C. (113) 311)
- Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin–pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)
- S_{BET}
- Unsupported $\text{MoO}_3\text{-Fe}_2\text{O}_3$ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)
- Salen complexes
- Aerobic oxidation of hydrocarbons catalyzed by electronegative iron salen complexes (Böttcher, A. (113) 191)
- Self-Assembly
- Biomimetic catalysis in a larger context. Correlation of structure and function with genesis (Hill, C.L. (113) 185)

Silica

Manganese porphyrins covalently bound to silica and montmorillonite K10 as efficient catalysts for alkene and alkane oxidation by hydrogen peroxide (Martinez-Lorente, M.A. (113) 343)

Siloxane

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

Simple olefin

Mn-salen catalyst, competitor of enzymes, for asymmetric epoxidation (Katsuki, T. (113) 87)

Smectite clay

Catalytic properties of biomimetic metallomacrocycles intercalated in layered double hydroxides and smectite clay: the importance of edge-site access (Chibwe, M. (113) 249)

Styrenes

Mechanisms for (porphyrinato)iron(III)-catalyzed oxygenation of styrenes by O₂ in presence of BH₄⁻ (Takeuchi, M. (113) 51)

Substrate recognition

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and thiolate ligand (Aissaoui, H. (113) 393)

Sulfonatophenyl-substituted porphyrin

Biomimetic oxidation of indole-3-acetic acid and related substrates with hydrogen peroxide catalysed by 5,10,15,20-tetrakis(2',6'-dichloro-3'-sulfonatophenyl)porphyrinatoiron(III) hydrate in aqueous solution and AOT reverse micelles (Chauhan, S.M.S. (113) 239)

Supported catalysts

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

Synthesis

State of the art in the development of biomimetic oxidation catalysts (Rocha Gonsalves, A.M.A. (113) 209)

Thiolate

Four recent studies in cytochrome P450 modelings: A stable iron porphyrin coordinated by a thiolate ligand; a robust ruthenium porphyrin-pyridine *N*-oxide derivatives system; polypeptide-bound iron porphyrin; application to drug metabolism studies (Higuchi, T. (113) 403)

Thiolate ligand

The synthesis of a new active-site analogue of cytochrome P450 carrying substrate recognition sites and thiolate ligand (Aissaoui, H. (113) 393)

Tin

The catalytic activity of poly(siloxane)-supported metalloporphyrins in olefin oxidation reactions: the effect of the support on the catalytic activity and selectivity (Hilal, H.S. (113) 35)

Titanosilicalites

The solvent effect in the sulfoxidation of thioethers by hydrogen peroxide using Ti-containing zeolites as catalysts (Hulea, V. (113) 499)

Toluene

Liquid phase oxidation reactions over chromium silicalite-1 (CrS-1) molecular sieves (Singh, A.P. (113) 489)

TPR

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Transition metal complex

A novel catalytic system for oxygenation with molecular oxygen induced by transition metal complexes with a multidentate *N*-heterocyclic podand ligand (Hirao, T. (113) 117)

2,4,6-trichlorophenol

Oxidation of 3,4-dimethoxybenzyl alcohol in water catalyzed by iron tetrasulfophthalocyanine (Hampton, K.W. (113) 167)

Trichlorophenol oxidation

Kinetic investigations of oxidative degradation of aromatic pollutant 2,4,6-trichlorophenol by an iron-porphyrin complex, a model of ligninase (Shukla, R.S. (113) 45)

Tryptophan dioxygenase model

Tryptophan dioxygenase-like catalysis of achiral and chiral manganese(II) porphyrins for dioxygen-inserted indole-ring opening reactions (Sagawa, T. (113) 269)

Tungstated zirconia

On the mechanism of *n*-butane disproportionation over platinum supported on tungstated zirconia: Isotopic labeling studies (Larsen, G. (113) 517)

Tyrosinase mimics

Copper-catalyzed *ortho*-oxidation of phenols by dioxygen (tyrosinase mimics) do yields catechols as primary products (Maumy, M. (113) 159)

XPS

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

X-ray photoelectron spectroscopy

Synthesis and characterization of a new platinum supported catalyst based on poly-{acrylamide-co-[3-(acryloylamino)propyltrimethylammoniumchloride]} as carrier (Baumgarten, E. (113) 469)

XRD

Unsupported MoO₃-Fe₂O₃ catalysts: characterization and activity during 2-propanol decomposition (Al-Shihry, S.S. (113) 479)

Zeolite Y

Membrane occluded catalysts: a higher order mimic with improved performance (Parton, R.F. (113) 283)

Cyclohexane oxidation with tertiary-butylhydroperoxide catalyzed by iron-phthalocyanines homogeneously and occluded in Y zeolite (Parton, R.F. (113) 445)