

Subject index

Acceptorless dehydrogenation

Computational and experimental studies of the mechanism of (PCP)Ir-catalyzed acceptorless dehydrogenation of alkanes (Krogh-Jespersen, K. (189) 95)

1-Acetyl-2-methoxynaphthalene

Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)

Activation of C–H bonds

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

Activation

Intramolecular C–H activation by dicationic Pt(II) complexes (Wong-Foy, A.G. (189) 3)

Additive's effect

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

Alkane dehydrogenation

Density functional studies of catalytic alkane dehydrogenation by an iridium pincer complex with and without a hydrogen acceptor (Fan, H.-J. (189) 111)

Alkanes

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
Computational and experimental studies of the mechanism of (PCP)Ir-catalyzed acceptorless dehydrogenation of alkanes (Krogh-Jespersen, K. (189) 95)

Alkyl hydroperoxides

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

N-Allylamides

Isomerisation of *N*-allyl-*N*-arylethanamides catalysed by ruthenium complexes (Krompiec, S. (189) 169)

θ -Al₂O₃

Pulse study on the partial oxidation of methane over Ni/ θ -Al₂O₃ catalyst (Liu, Z.-W. (189) 283)

Aluminum bis(iminophosphorano)methanide

Aluminum bis(iminophosphorano)methanide and methandiide complexes—transition metal-free ethylene polymerization cationic catalyst precursors (Cavell, R.G. (189) 137)

2-Aminopyridines

Chelation-assisted carbon–carbon bond activation by Rh(I) catalysts (Jun, C.-H. (189) 145)

Aqueous-biphasic catalysis

The biphasic regioselective hydrogenation of benzo[b]thiophene and quinoline catalyzed by Ru(II) species, deriving from the

water soluble phosphine TPPTS (tris-*meta*-sulfonato-phenylphosphine) and stabilized by nitrogen donor ligands (Busolo, M.A. (189) 211)

Benzene

Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)

Benzo[b]thiophene

The biphasic regioselective hydrogenation of benzo[b]thiophene and quinoline catalyzed by Ru(II) species, deriving from the water soluble phosphine TPPTS (tris-*meta*-sulfonato-phenylphosphine) and stabilized by nitrogen donor ligands (Busolo, M.A. (189) 211)

Bimetallic

Synthesis of hetero-bimetallic metallocene complexes and their catalytic activities for ethylene polymerization (Huang, J. (189) 187)

Biomimetics

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

C–C bond activation

Chelation-assisted carbon–carbon bond activation by Rh(I) catalysts (Jun, C.-H. (189) 145)

C–C bond cleavage

Cleavage of the carbon–carbon bond in biphenylene using transition metals (Perthuisot, C. (189) 157)

C–H activation

Reversible heterolytic C–H cleavage by intramolecular C–H activation at diazabutadiene ligands at iridium (Wik, B.J. (189) 23)

Cationic Ir(III) alkyl and hydride complexes: stoichiometric and catalytic C–H activation by Cp*(PMe₃)Ir(R)(X) in homogeneous solution (Klei, S.R. (189) 79)

Density functional studies of catalytic alkane dehydrogenation by an iridium pincer complex with and without a hydrogen acceptor (Fan, H.-J. (189) 111)

Catalytic asymmetric C–H activation of sp³ hybridized C–H bonds by means of carbenoid C–H insertions: applications in organic synthesis (Davies, H.M.L. (189) 125)

Carbonylation

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

tert-Carboxylic acid

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

Catalases

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

Catalysis

Dehydrogenation of secondary amines to imines catalyzed by an iridium PCP pincer complex: initial aliphatic or direct amino dehydrogenation? (Gu, X.-Q. (189) 119)

Cleavage of the carbon-carbon bond in biphenylene using transition metals (Perthuisot, C. (189) 157)

Synthesis of hetero-bimetallic metallocene complexes and their catalytic activities for ethylene polymerization (Huang, J. (189) 187)

Catalyst

Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

Catalytic asymmetric

Catalytic asymmetric C-H activation of sp^3 hybridized C-H bonds by means of carbenoid C-H insertions: applications in organic synthesis (Davies, H.M.L. (189) 125)

Catalytic hydroxylation

Catalytic hydroxylation using chloroplatinum compounds (DeVries, N. (189) 17)

Cationic catalyst

Aluminum bis(iminophosphorano)methanide and methandiide complexes—transition metal-free ethylene polymerization cationic catalyst precursors (Cavell, R.G. (189) 137)

Cationic Ir(III) complexes

Cationic Ir(III) alkyl and hydride complexes: stoichiometric and catalytic C-H activation by $Cp^*(PMe_3)Ir(R)(X)$ in homogeneous solution (Klei, S.R. (189) 79)

Cationic metal carbonyl

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

Chelation assistance

Chelation-assisted carbon-carbon bond activation by Rh(I) catalysts (Jun, C.-H. (189) 145)

Chloroplatinum compounds

Catalytic hydroxylation using chloroplatinum compounds (DeVries, N. (189) 17)

Cinchonidine

Enantioselective hydrogenation of ethyl pyruvate catalyzed by polyvinylpyrrolidone-stabilized and supported rhodium nanocluster (Huang, Y. (189) 219)

CTAB

CTAB micelles and the hydroformylation of octene with rhodium/TPPTS catalysts. Evidence for the interaction of TPPTS with micelle surfaces (Riisager, A. (189) 195)

Cyclometalation

Intramolecular C-H activation by dicationic Pt(II) complexes (Wong-Foy, A.G. (189) 3)

Dehydrogenation

Dehydrogenation of secondary amines to imines catalyzed by an iridium PCP pincer complex: initial aliphatic or direct amino dehydrogenation? (Gu, X.-Q. (189) 119)

Density functional theory

Density functional studies of catalytic alkane dehydrogenation by an iridium pincer complex with and without a hydrogen acceptor (Fan, H.-J. (189) 111)

DFT

Computational and experimental studies of the mechanism of (PCP)Ir-catalyzed acceptorless dehydrogenation of alkanes (Krogh-Jespersen, K. (189) 95)

Dicationic complexes

Intramolecular C-H activation by dicationic Pt(II) complexes (Wong-Foy, A.G. (189) 3)

Diimine

Reversible heterolytic C-H cleavage by intramolecular C-H activation at diazabutadiene ligands at iridium (Wik, B.J. (189) 23)

(E)-enamides

Isomerisation of *N*-allyl-*N*-arylethanamides catalysed by ruthenium complexes (Krompiec, S. (189) 169)

Enantioselective hydrogenation

Enantioselective hydrogenation of ethyl pyruvate catalyzed by polyvinylpyrrolidone-stabilized and supported rhodium nanocluster (Huang, Y. (189) 219)

Enzymes

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

Epoxidation

Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)

Equilibrium adsorption constants

Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)

Ethyl pyruvate

Enantioselective hydrogenation of ethyl pyruvate catalyzed by polyvinylpyrrolidone-stabilized and supported rhodium nanocluster (Huang, Y. (189) 219)

Ethylene polymerization

Aluminum bis(iminophosphorano)methanide and methandiide complexes—transition metal-free ethylene polymerization cationic catalyst precursors (Cavell, R.G. (189) 137)

Ethylene/1-hexene copolymers

Evaluation of silica-supported zirconocenes in ethylene/1-hexene copolymerization (Galland, G.B. (189) 233)

Friedel-Crafts acetylation

Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)

Functionalization

Cleavage of the carbon-carbon bond in biphenylene using transition metals (Perthuisot, C. (189) 157)

H-D exchange

Cationic Ir(III) alkyl and hydride complexes: stoichiometric and catalytic C-H activation by $Cp^*(PMe_3)Ir(R)(X)$ in homogeneous solution (Klei, S.R. (189) 79)

HC-SCR

Activity and characterization of bimetallic ZSM-5 for the selective catalytic reduction of NO_x (Saaid, I.M. (189) 241)

- Heterolytic cleavage
Reversible heterolytic C–H cleavage by intramolecular C–H activation at diazabutadiene ligands at iridium (Wik, B.J. (189) 23)
- Homogeneous catalysis
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
Computational and experimental studies of the mechanism of (PCP)Ir-catalyzed acceptorless dehydrogenation of alkanes (Krogh-Jespersen, K. (189) 95)
- HY zeolites
Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)
- Hydrocarbons
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Hydroformylation
Rhodium complexes supported on zinc aluminate spinel as catalysts for hydroformylation and hydrogenation: preparation and activity (Wrzyszc, J. (189) 203)
- Hydrogen peroxide
Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Hydrogenation
Rhodium complexes supported on zinc aluminate spinel as catalysts for hydroformylation and hydrogenation: preparation and activity (Wrzyszc, J. (189) 203)
The biphasic regioselective hydrogenation of benzo[b]thiophene and quinoline catalyzed by Ru(II) species, deriving from the water soluble phosphine TPPTS (tris-*meta*-sulfonato-phenylphosphine) and stabilized by nitrogen donor ligands (Busolo, M.A. (189) 211)
- Hydrothermal process
Rhodium complexes supported on zinc aluminate spinel as catalysts for hydroformylation and hydrogenation: preparation and activity (Wrzyszc, J. (189) 203)
- Imines
Dehydrogenation of secondary amines to imines catalyzed by an iridium PCP pincer complex: initial aliphatic or direct amino dehydrogenation? (Gu, X.-Q. (189) 119)
- IR
Computational and experimental studies of the mechanism of (PCP)Ir-catalyzed acceptorless dehydrogenation of alkanes (Krogh-Jespersen, K. (189) 95)
- Ir(V) complexes
Cationic Ir(III) alkyl and hydride complexes: stoichiometric and catalytic C–H activation by Cp*(PMe₃)Ir(R)(X) in homogeneous solution (Klei, S.R. (189) 79)
- Iridium pincer complex
Density functional studies of catalytic alkane dehydrogenation by an iridium pincer complex with and without a hydrogen acceptor (Fan, H.-J. (189) 111)
- Iridium
Reversible heterolytic C–H cleavage by intramolecular C–H activation at diazabutadiene ligands at iridium (Wik, B.J. (189) 23)
- Iron
Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)
- Kinetics
Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)
- Light-off
Pd-containing perovskite-type oxides used for three-way catalysts (Zhou, K. (189) 225)
- Mechanism
Pulse study on the partial oxidation of methane over Ni/θ-Al₂O₃ catalyst (Liu, Z.-W. (189) 283)
- Metal complexes
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Metallacycle
Reversible heterolytic C–H cleavage by intramolecular C–H activation at diazabutadiene ligands at iridium (Wik, B.J. (189) 23)
- Metallocene
Synthesis of hetero-bimetallic metallocene complexes and their catalytic activities for ethylene polymerization (Huang, J. (189) 187)
Evaluation of silica-supported zirconocenes in ethylene/1-hexene copolymerization (Galland, G.B. (189) 233)
- 2-Methoxynaphthalene
Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)
- Methyl abstraction
Cationic Ir(III) alkyl and hydride complexes: stoichiometric and catalytic C–H activation by Cp*(PMe₃)Ir(R)(X) in homogeneous solution (Klei, S.R. (189) 79)
- Micelles
CTAB micelles and the hydroformylation of octene with rhodium/TPPTS catalysts. Evidence for the interaction of TPPTS with micelle surfaces (Riisager, A. (189) 195)
- Modified Eley–Rideal type mechanism
Kinetics of 2-methoxynaphthalene acetylation with acetic anhydride over dealuminated HY zeolites (Meric, P. (189) 251)
- Nafion
Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)
- Nanocluster
Enantioselective hydrogenation of ethyl pyruvate catalyzed by polyvinylpyrrolidone-stabilized and supported rhodium nanocluster (Huang, Y. (189) 219)
- Ni catalyst
Pulse study on the partial oxidation of methane over Ni/θ-Al₂O₃ catalyst (Liu, Z.-W. (189) 283)
- Nitrogen donor ligands
The biphasic regioselective hydrogenation of benzo[b]thiophene and quinoline catalyzed by Ru(II) species, deriving from the

- water soluble phosphine TPPTS (tris-*meta*-sulfonato-phenylphosphine) and stabilized by nitrogen donor ligands (Busolo, M.A. (189) 211)
- NO reduction
Activity and characterization of bimetallic ZSM-5 for the selective catalytic reduction of NO_x (Saaid, I.M. (189) 241)
- Octene hydroformylation
CTAB micelles and the hydroformylation of octene with rhodium/TPPTS catalysts. Evidence for the interaction of TPPTS with micelle surfaces (Riisager, A. (189) 195)
- Olefins
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Oxidation
Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Oxidative addition
Cleavage of the carbon-carbon bond in biphenylene using transition metals (Perthuisot, C. (189) 157)
- Oxygen
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Oxygenases
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Oxygenation
Metal-catalyzed hydrocarbon oxygenations in solutions: the dramatic role of additives: a review (Shul'pin, G.B. (189) 39)
- Palladium photodeposition
Effect of Pd-photodeposition over TiO₂ on product selectivity in photocatalytic degradation of vinyl chloride monomer (Sano, T. (189) 263)
- Palladium
Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)
- Palladium-substituted
Pd-containing perovskite-type oxides used for three-way catalysts (Zhou, K. (189) 225)
- Partial oxidation of methane
Pulse study on the partial oxidation of methane over Ni/θ-Al₂O₃ catalyst (Liu, Z.-W. (189) 283)
- Perovskite-type oxide
Pd-containing perovskite-type oxides used for three-way catalysts (Zhou, K. (189) 225)
- Phenol
Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)
- Photocatalytic degradation
Effect of Pd-photodeposition over TiO₂ on product selectivity in photocatalytic degradation of vinyl chloride monomer (Sano, T. (189) 263)
- Pincer complex
Dehydrogenation of secondary amines to imines catalyzed by an iridium PCP pincer complex: initial aliphatic or direct amino dehydrogenation? (Gu, X.-Q. (189) 119)
- Pincer complexes
Computational and experimental studies of the mechanism of (PCP)Ir-catalyzed acceptorless dehydrogenation of alkanes (Krogh-Jespersen, K. (189) 95)
- Platinum
Intramolecular C-H activation by dicationic Pt(II) complexes (Wong-Foy, A.G. (189) 3)
- Polyethylene
Synthesis of hetero-bimetallic metallocene complexes and their catalytic activities for ethylene polymerization (Huang, J. (189) 187)
Evaluation of silica-supported zirconocenes in ethylene/1-hexene copolymerization (Galland, G.B. (189) 233)
- Product selectivity
Effect of Pd-photodeposition over TiO₂ on product selectivity in photocatalytic degradation of vinyl chloride monomer (Sano, T. (189) 263)
- 2-Propanol dehydration
Preparation, physico-chemical characterization and catalytic activity of sulphated ZrO₂-TiO₂ mixed oxides (Das, D. (189) 271)
- Pt-Cu bimetallic catalyst
Activity and characterization of bimetallic ZSM-5 for the selective catalytic reduction of NO_x (Saaid, I.M. (189) 241)
- Pulse reaction
Pulse study on the partial oxidation of methane over Ni/θ-Al₂O₃ catalyst (Liu, Z.-W. (189) 283)
- Quinoline
The biphasic regioselective hydrogenation of benzo[b]thiophene and quinoline catalyzed by Ru(II) species, deriving from the water soluble phosphine TPPTS (tris-*meta*-sulfonato-phenylphosphine) and stabilized by nitrogen donor ligands (Busolo, M.A. (189) 211)
- Reaction mechanism
Isomerisation of *N*-allyl-*N*-arylethanamides catalysed by ruthenium complexes (Krompiec, S. (189) 169)
- Rh(I) catalysts
Chelation-assisted carbon-carbon bond activation by Rh(I) catalysts (Jun, C.-H. (189) 145)
- Rhodium carbenoid
Catalytic asymmetric C-H activation of sp³ hybridized C-H bonds by means of carbenoid C-H insertions: applications in organic synthesis (Davies, H.M.L. (189) 125)
- Rhodium
Enantioselective hydrogenation of ethyl pyruvate catalyzed by polyvinylpyrrolidone-stabilized and supported rhodium nanocluster (Huang, Y. (189) 219)
- Rhodium/TPPTS
CTAB micelles and the hydroformylation of octene with rhodium/TPPTS catalysts. Evidence for the interaction of TPPTS with micelle surfaces (Riisager, A. (189) 195)

Ruthenium complexes

Isomerisation of *N*-allyl-*N*-arylethanamides catalysed by ruthenium complexes (Krompiec, S. (189) 169)

Ruthenium

The biphasic regioselective hydrogenation of benzo[b]thiophene and quinoline catalyzed by Ru(II) species, deriving from the water soluble phosphine TPPTS (tris-*meta*-sulfonato-phenylphosphine) and stabilized by nitrogen donor ligands (Busolo, M.A. (189) 211)

Secondary amines

Dehydrogenation of secondary amines to imines catalyzed by an iridium PCP pincer complex: initial aliphatic or direct amino dehydrogenation? (Gu, X.-Q. (189) 119)

Selective isomerisation

Isomerisation of *N*-allyl-*N*-arylethanamides catalysed by ruthenium complexes (Krompiec, S. (189) 169)

Shilov

Catalytic hydroxylation using chloroplatinum compounds (DeVries, N. (189) 17)

Silver carbonyl

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

SO₄/ZrO₂

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

Structural stability

Preparation, physico-chemical characterization and catalytic activity of sulphated ZrO₂-TiO₂ mixed oxides (Das, D. (189) 271)

Superacid

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)

Supported catalysts

Evaluation of silica-supported zirconocenes in ethylene/1-hexene copolymerization (Galland, G.B. (189) 233)

Supported rhodium complexes

Rhodium complexes supported on zinc aluminate spinel as catalysts for hydroformylation and hydrogenation: preparation and activity (Wrzyszc, J. (189) 203)

Supported

Pd-containing perovskite-type oxides used for three-way catalysts (Zhou, K. (189) 225)

Surface acidity

Preparation, physico-chemical characterization and catalytic activity of sulphated ZrO₂-TiO₂ mixed oxides (Das, D. (189) 271)

Three-way catalyst

Pd-containing perovskite-type oxides used for three-way catalysts (Zhou, K. (189) 225)

TiO₂ photocatalyst

Effect of Pd-photodeposition over TiO₂ on product selectivity in photocatalytic degradation of vinyl chloride monomer (Sano, T. (189) 263)

Titanium

Synthesis of hetero-bimetallic metallocene complexes and their catalytic activities for ethylene polymerization (Huang, J. (189) 187)

Unstrained ketones

Chelation-assisted carbon-carbon bond activation by Rh(I) catalysts (Jun, C.-H. (189) 145)

Vanadium

Palladium-mediated aerobic oxidation of organic substrates: the role of metal versus hydrogen peroxide (Remias, J.E. (189) 33)

Vinyl chloride monomer

Effect of Pd-photodeposition over TiO₂ on product selectivity in photocatalytic degradation of vinyl chloride monomer (Sano, T. (189) 263)

X-ray photoelectron spectroscopy

Activity and characterization of bimetallic ZSM-5 for the selective catalytic reduction of NO_x (Saaid, I.M. (189) 241)

Zinc aluminate spinel

Rhodium complexes supported on zinc aluminate spinel as catalysts for hydroformylation and hydrogenation: preparation and activity (Wrzyszc, J. (189) 203)

Zirconium

Synthesis of hetero-bimetallic metallocene complexes and their catalytic activities for ethylene polymerization (Huang, J. (189) 187)

ZrO₂-TiO₂ mixed oxide

Preparation, physico-chemical characterization and catalytic activity of sulphated ZrO₂-TiO₂ mixed oxides (Das, D. (189) 271)

ZSM-5 zeolite

Activity and characterization of bimetallic ZSM-5 for the selective catalytic reduction of NO_x (Saaid, I.M. (189) 241)

ZSM-5

Carbonylation of hydrocarbons and alcohols by cationic metal carbonyl catalysts (Souma, Y. (189) 67)