



Subject index

Absorption

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

Acetic acid

Oxidation of propane over V_2O_5 - P_2O_5 -based catalysts at relatively low temperatures 297

Acrylic acid

Oxidation of propane over V_2O_5 - P_2O_5 -based catalysts at relatively low temperatures 297

Acrylonitrile

Kinetic study on propane ammoxidation to acrylonitrile over V–Sb–O/TiO $_2$ (B) 325

Propane ammoxidation to acrylonitrile over a tin-based mixedoxide catalyst 283

Adducts of methane and hydrogen

Adducts of hydrogen and methane with Os(II) and Os(IV) complexes: Theoretical analysis of $(\eta^2$ -H₂)OsCl₂(PH₃)₂ and $(\eta$ -CH₄)OsCl₂(PH₃)₂ molecular complexes by RHF, MP2 and DFT methods 247

Ag/TiO2-ZrO2

Infrared study of catalytic reduction of nitrogen monoxide by propene over Ag/TiO₂–ZrO₂ 127

Al₂O₃ lean-burn conditions

Mechanistic considerations for the reduction of NO_x over Pt/ Al_2O_3 and Al_2O_3 catalysts under lean-burn conditions 13

Alcohols

Oxidation of methane-ethane mixtures into alcohols under enhanced pressures 241

Allylic substitution

Palladium(0) allylic alkylation in a two-phase system or with a supported aqueous phase catalyst 471

Alumina

Selective catalytic reduction of nitric oxide from stationary diesel sources by methanol over promoted alumina catalysts 137

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Ammoxidation of propane

Propane ammoxidation to acrylonitrile over a tin-based mixedoxide catalyst 283

Antimony mixed oxides

Propane ammoxidation to acrylonitrile over a tin-based mixedoxide catalyst 283

Arsenic poisoning

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Automotive catalysts

Study of nitric oxide reduction over silver/alumina catalysts under lean conditions: Effects of reaction conditions and support 37

B₂O₃/Al₂O₃

Catalytic selective oxidation of propane 315

Biphas

Transition metal catalysis in fluorous media: application of a new immobilization principle to rhodium-catalyzed hydrogenation of alkenes 381

n-butane formation

The direct oxidation of ethane to alcohols at high pressures 311

C₁-C₃ hydrocarbons

Porous carbon materials prepared from $C_1\text{--}C_3$ hydrocarbons 341 Ca–Mn–O/Al $_2O_3$

Interaction of carbon dioxide with methane on oxide catalysts 211

Carbon dioxide

Interaction of carbon dioxide with methane on oxide catalysts 211

Carbon molecular sieve

Porous carbon materials prepared from C_1 – C_3 hydrocarbons 341

Carbon

High-temperature carbon states at $Pt(1\ 1\ 0)$ surface and their reactivity towards H_2 and $O_2\ 353$

Catalys

Interaction of methane and oxygen with the surface of Li–Mn–O catalyst 263

Kinetics of carbon formation from CH₄–H₂ mixtures over a nickel containing catalyst 357

The influence of defect nature on catalytic performance of Li, Na-doped MgO, CaO and SrO in the oxidative coupling of methane 279

Two-bed catalytic system for NO_x/SO_x removal 85

Catalytic filamentary carbon

Kinetics of carbon formation from CH₄-H₂ mixtures over a nickel containing catalyst 357

Catalytic filamentous carbon

Porous carbon materials prepared from C_1 – C_3 hydrocarbons 341

CH_4

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Co-Beta

A study on the roles of cobalt species in NO_x reduction by propane on Co-Beta 45

CO₂ reforming

Syngas production from natural gas using ZrO_2 -supported metals 225

CO_2

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Co₃O₂

NO decomposition over sodium-promoted cobalt oxide 51 Complexes of Osmium

Adducts of hydrogen and methane with Os(II) and Os(IV) complexes: Theoretical analysis of $(\eta^2$ -H₂)OsCl₂(PH₃)₂ and $(\eta$ -CH₄)OsCl₂(PH₃)₂ molecular complexes by RHF, MP2 and DFT methods 247

Computer simulation

Kinetic aspects of the methane oxidative coupling at elevated pressures 233

Copper oxide

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

β-Cyclodextrins

Supramolecular transition metal catalysts in two-phase systems 399

Deactivation

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Kinetics of carbon formation from CH₄–H₂ mixtures over a nickel containing catalyst 357

Decane

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

Decomposition

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

Deep oxidation

Novel microdesign of oxidation catalysts. Part 1. Glass crystal microspheres as new catalysts for the oxidative conversion of methane 267

Novel microdesign of oxidation catalysts. Part 2. The influence of fluorination on the catalytic properties of glass crystal microspheres 273

The study of composition of novel high temperature catalysts for oxidative conversion of methane 197

Defect

The influence of defect nature on catalytic performance of Li, Na-doped MgO, CaO and SrO in the oxidative coupling of methane 279

DeNO.

Activity and durability of Fe/ZSM-5 catalysts for lean burn NO_x reduction in the presence of water vapor 73

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

Two-bed catalytic system for NO_x/SO_x removal 85

Two-bed catalytic system for NO_x/SO_x removal 85

Diamono

High-temperature carbon states at Pt(1 1 0) surface and their reactivity towards H_2 and O_2 353

Diatomaceous earth

Two-bed catalytic system for NO_x/SO_x removal 85

Diesel exhaust gases

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

Emission control

Lean- NO_x reduction catalysis by metal-complex impregnated molecular sieves – Effect of ligands and metals 61

ESR

The influence of defect nature on catalytic performance of Li, Na-doped MgO, CaO and SrO in the oxidative coupling of methane 279

Ethane oxidation

The direct oxidation of ethane to alcohols at high pressures 311

Ethane

Oxidation of methane-ethane mixtures into alcohols under enhanced pressures 241

Ethanol

Oxidation of methane-ethane mixtures into alcohols under enhanced pressures 241

The direct oxidation of ethane to alcohols at high pressures 311

Ethylene production

Evaluation of the process of oxidative coupling of methane using liquefied natural gas from deposits of Krasnoyarsk region 361

Ethylene

High-temperature carbon states at Pt(1 1 0) surface and their reactivity towards H₂ and O₂ 353

Oxidative and nonoxidative conversion of C_2 hydrocarbons on ZSM-5 303

Fe/ZSM-5

Activity and durability of Fe/ZSM-5 catalysts for lean burn NO_x reduction in the presence of water vapor 73

Ferriferrous oxides

Novel microdesign of oxidation catalysts. Part 1. Glass crystal microspheres as new catalysts for the oxidative conversion of methane 267

Fluorination

Novel microdesign of oxidation catalysts. Part 2. The influence of fluorination on the catalytic properties of glass crystal microspheres 273

Fluorous

Transition metal catalysis in fluorous media: application of a new immobilization principle to rhodium-catalyzed hydrogenation of alkenes 381

Formaldehyde

Methane partial oxidation. Challenge and perspective 191 Fourier transform infrared

Infrared study of catalytic reduction of nitrogen monoxide by propene over Ag/TiO₂–ZrO₂ 127

Gas

State of natural gas resource base on the territory of Nizhneye Priangarie (lower Angara region) 177

Gauze catalysts

Partial oxidation of methane to synthesis gas at very short contact times 205

Green chemistry

The use of soluble polymers to effect homogeneous catalyst separation and reuse 389

H₂O effect

Activity and durability of Fe/ZSM-5 catalysts for lean burn NO_x reduction in the presence of water vapor 73

Hetesopoly acid

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

Homogenous catalysis

The use of soluble polymers to effect homogeneous catalyst separation and reuse 389

Hot wire

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Hydrocarbon

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Hydroformylation

Supramolecular transition metal catalysts in two-phase systems 399

Hydrogenation

Supramolecular transition metal catalysts in two-phase systems

Transition metal catalysis in fluorous media: application of a new immobilization principle to rhodium-catalyzed hydrogenation of alkenes 381

Impurity

The influence of defect nature on catalytic performance of Li, Na-doped MgO, CaO and SrO in the oxidative coupling of methane 279

In-situ IR

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

Intrapore catalysis

Intrapore catalysis in reduction of nitric oxide with methane 159

Isocvanate

Infrared study of catalytic reduction of nitrogen monoxide by propene over Ag/TiO2-ZrO2 127

Kinetics

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Kinetic aspects of the methane oxidative coupling at elevated pressures 233

Kinetics of carbon formation from CH₄–H₂ mixtures over a nickel containing catalyst 357

Krasnoyarsk Kray

State of natural gas resource base on the territory of Nizhneye Priangarie (lower Angara region) 177

Lean-NO,

Lean- NO_x reduction catalysis by metal-complex impregnated molecular sieves – Effect of ligands and metals 61

LNG

Evaluation of the process of oxidative coupling of methane using liquefied natural gas from deposits of Krasnoyarsk region 361

Magnesium silicate

Two-bed catalytic system for NO_x/SO_x removal 85

Mesoporous molecular sieves

Lean-NO $_x$ reduction catalysis by metal-complex impregnated molecular sieves – Effect of ligands and metals 61

Metal-complex impregnation

Lean- NO_x reduction catalysis by metal-complex impregnated molecular sieves – Effect of ligands and metals 61

Methane conversion

Methane processing under microwave radiation: Recent findings and problems 333

Methane coupling

The influence of defect nature on catalytic performance of Li, Na-doped MgO, CaO and SrO in the oxidative coupling of methane 279

Methane decomposition

Kinetics of carbon formation from CH₄–H₂ mixtures over a nickel containing catalyst 357

Methane

Effect of H₂O and SO₂ on the activity of Pd/TiO₂ catalysts in catalytic reduction of NO with methane in the presence of oxygen 3

Interaction of carbon dioxide with methane on oxide catalysts 211 Intrapore catalysis in reduction of nitric oxide with methane 159 Kinetic aspects of the methane oxidative coupling at elevated pressures 233

Methane partial oxidation. Challenge and perspective 191

Novel microdesign of oxidation catalysts. Part 1. Glass crystal microspheres as new catalysts for the oxidative conversion of methane 267

Novel microdesign of oxidation catalysts. Part 2. The influence of fluorination on the catalytic properties of glass crystal microspheres 273

Oxidation of methane-ethane mixtures into alcohols under enhanced pressures 241

Partial catalytic oxidation and condensation of methane by oxygen and sulphur 367

Partial oxidation of methane to synthesis gas at very short contact times 205

Syngas production from methane in an electrochemical membrane reactor 337

Syngas production from natural gas using ZrO₂-supported metals 225

The partial oxidation of methane to methanol: An approach to catalyst design 217

The study of composition of novel high temperature catalysts for oxidative conversion of methane 197

Methano

Methane partial oxidation. Challenge and perspective 191

Oxidation of methane-ethane mixtures into alcohols under enhanced pressures 241

Selective catalytic reduction of nitric oxide from stationary diesel sources by methanol over promoted alumina catalysts 137 The direct oxidation of ethane to alcohols at high pressures 311 The partial oxidation of methane to methanol: An approach to catalyst design 217

Micropore-size distribution

Porous carbon materials prepared from C_1 – C_3 hydrocarbons 341 Microspheres

Novel microdesign of oxidation catalysts. Part 1. Glass crystal microspheres as new catalysts for the oxidative conversion of methane 267

Novel microdesign of oxidation catalysts. Part 2. The influence of fluorination on the catalytic properties of glass crystal microspheres 273

The study of composition of novel high temperature catalysts for oxidative conversion of methane 197

Microwave-driven catalysis

Methane processing under microwave radiation: Recent findings and problems 333

Molecular orbital calculation

Catalytic activity of perovskite-type oxide catalysts for direct decomposition of NO: Correlation between cluster model calculations and temperature-programmed desorption experiments 167

Molecular recognition

Supramolecular transition metal catalysts in two-phase systems 399

Molybdenum

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Molybdenum/alumina

Selective catalytic reduction of nitric oxide from stationary diesel sources by methanol over promoted alumina catalysts 137 Monolith

Two-bed catalytic system for NO_x/SO_x removal 85

Multiply fundionalized phosphines

Palladium catalyzed P-C coupling – a powerful tool for the syntheses of hydrophilic phosphines 413

Na promotion

NO decomposition over sodium-promoted cobalt oxide 51

Nitric oxide

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

Selective catalytic reduction of nitric oxide from stationary diesel sources by methanol over promoted alumina catalysts 137

Nitrogen monoxide

Infrared study of catalytic reduction of nitrogen monoxide by propene over Ag/TiO₂–ZrO₂ 127

Nizhneye Priangarie

State of natural gas resource base on the territory of Nizhneye Priangarie (lower Angara region) 177

NO decomposition

Catalytic activity of perovskite-type oxide catalysts for direct decomposition of NO: Correlation between cluster model calculations and temperature-programmed desorption experiments 167 Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

NO decomposition over sodium-promoted cobalt oxide 51

NO reduction

Effect of H_2O and SO_2 on the activity of Pd/TiO_2 catalysts in catalytic reduction of NO with methane in the presence of oxygen 3

Intrapore catalysis in reduction of nitric oxide with methane 159

NC

The selective catalytic reduction of nitric oxide by propylene over $Pt/SiO_2\ 93$

NO+NH₃ reaction

Chemical, structural and mechanistic aspects on NO_x SCR over commercial and model oxide catalysts 101

NO_x reduction

Lean- NO_x reduction catalysis by metal-complex impregnated molecular sieves – Effect of ligands and metals 61

Study of nitric oxide reduction over silver/alumina catalysts under lean conditions: Effects of reaction conditions and support

Mechanistic considerations for the reduction of NO_x over Pt/ Al_2O_3 and Al_2O_3 catalysts under lean-burn conditions 13

NO_x

A study on the roles of cobalt species in NO_x reduction by propane on Co-Beta 45

NO_x chemisorption

Intrapore catalysis in reduction of nitric oxide with methane 159

OCM

Evaluation of the process of oxidative coupling of methane using liquefied natural gas from deposits of Krasnoyarsk region 361 Oxidation

Oxidation of methane–ethane mixtures into alcohols under enhanced pressures 241

Partial catalytic oxidation and condensation of methane by oxygen and sulphur 367

Oxidative addition of methane

Adducts of hydrogen and methane with Os(II) and Os(IV) complexes: Theoretical analysis of $(\eta^2$ -H₂)OsCl₂(PH₃)₂ and $(\eta$ -CH₄)OsCl₂(PH₃)₂ molecular complexes by RHF, MP2 and DFT methods 247

Oxidative condensation reaction

Interaction of methane and oxygen with the surface of Li-Mn-O catalyst 263

Oxidative conversion

Oxidative and nonoxidative conversion of C_2 hydrocarbons on ZSM-5 303

Oxidative coupling

Kinetic aspects of the methane oxidative coupling at elevated pressures 233

Novel microdesign of oxidation catalysts. Part 1. Glass crystal microspheres as new catalysts for the oxidative conversion of methane 267

Novel microdesign of oxidation catalysts. Part 2. The influence of fluorination on the catalytic properties of glass crystal microspheres 273

The study of composition of novel high temperature catalysts for oxidative conversion of methane 197

Oxide catalysts

The partial oxidation of methane to methanol: An approach to catalyst design 217

Oxide

The influence of defect nature on catalytic performance of Li, Na-doped MgO, CaO and SrO in the oxidative coupling of methane 279

Oxy-products

Methane partial oxidation. Challenge and perspective 191

Oxygen defects

The study of composition of novel high temperature catalysts for oxidative conversion of methane 197

Oxygen

Partial catalytic oxidation and condensation of methane by oxygen and sulphur 367

P-C coupling

Palladium catalyzed P-C coupling – a powerful tool for the syntheses of hydrophilic phosphines 413

Palladium

Effect of H_2O and SO_2 on the activity of Pd/TiO2 catalysts in catalytic reduction of NO with methane in the presence of oxygen 3

Palladium(0) allylic alkylation in a two-phase system or with a supported aqueous phase catalyst 471

Partial oxidation

Catalytic selective oxidation of propane 315

Methane partial oxidation. Challenge and perspective 191

Partial oxidation of methane to synthesis gas at very short contact times 205

Syngas production from methane in an electrochemical membrane reactor 337

Syngas production from natural gas using ZrO_2 -supported metals 225

The partial oxidation of methane to methanol: An approach to catalyst design 217

Pd catalyzed

Palladium catalyzed P-C coupling – a powerful tool for the syntheses of hydrophilic phosphines 413

Perfluorocarbon

Transition metal catalysis in fluorous media: application of a new immobilization principle to rhodium-catalyzed hydrogenation of alkenes 381

Perovskite-type oxide catalyst

Catalytic activity of perovskite-type oxide catalysts for direct decomposition of NO: Correlation between cluster model calculations and temperature-programmed desorption experiments 167

Phase transfer catalysis

Supramolecular transition metal catalysts in two-phase systems 399

Piecycling

The use of soluble polymers to effect homogeneous catalyst separation and reuse 389

Platinum

High-temperature carbon states at Pt(1 1 0) surface and their reactivity towards H_2 and O_2 353

The selective catalytic reduction of nitric oxide by propylene over $Pt/SiO_2\ 93$

Polymer support

The use of soluble polymers to effect homogeneous catalyst separation and reuse 389

Polyoxometalate

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

Ponytail

Transition metal catalysis in fluorous media: application of a new immobilization principle to rhodium-catalyzed hydrogenation of alkenes 381

Pore-size distribution

Study of nitric oxide reduction over silver/alumina catalysts under lean conditions: Effects of reaction conditions and support 37

Porous carbon materials

Porous carbon materials prepared from C₁–C₃ hydrocarbons 341 Propane oxidation

Oxidation of propane over V₂O₅-P₂O₅-based catalysts at relatively low temperatures 297

Propane

A study on the roles of cobalt species in NO_x reduction by propane on Co-Beta 45

Catalytic selective oxidation of propane 315

Propylene

The selective catalytic reduction of nitric oxide by propylene over $\text{Pt/SiO}_2\ 93$

Pt catalysts

Mechanistic considerations for the reduction of NO_x over Pt/Al_2O_3 and Al_2O_3 catalysts under lean-burn conditions 13

Pt/ZrO₂

Syngas production from natural gas using ZrO_2 -supported metals 225

Quantum chemical calculations

Adducts of hydrogen and methane with Os(II) and Os(IV) complexes: Theoretical analysis of $(\eta^2$ -H₂)OsCl₂(PH₃)₂ and

 $(\eta\text{-}CH_4)OsCl_2(PH_3)_2$ molecular complexes by RHF, MP2 and DFT methods 247

Raman spectroscopy

A study on the roles of cobalt species in NO_x reduction by propane on Co-Beta 45

Rare-earth oxide-based catalysts

Catalytic selective oxidation of propane 315

Reaction mechanism

Catalytic selective oxidation of propane 315

Reaction mechanisms

Mechanistic considerations for the reduction of NO_x over Pt/Al_2O_3 and Al_2O_3 catalysts under lean-burn conditions 13

Recycling

The use of soluble polymers to effect homogeneous catalyst separation and reuse 389

Reforning

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Resource

State of natural gas resource base on the territory of Nizhneye Priangarie (lower Angara region) 177

Rutile catalysts

Propane ammoxidation to acrylonitrile over a tin-based mixedoxide catalyst 283

SCR mechanism

Chemical, structural and mechanistic aspects on NO_x SCR over commercial and model oxide catalysts 101

SCR

Activity and durability of Fe/ZSM-5 catalysts for lean burn NO_x reduction in the presence of water vapor 73

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Selective catalytic reduction

Chemical, structural and mechanistic aspects on NO_x SCR over commercial and model oxide catalysts 101

The selective catalytic reduction of nitric oxide by propylene over $Pt/SiO_2\ 93$

Two-bed catalytic system for NO_x/SO_x removal 85

Selective reduction

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

Infrared study of catalytic reduction of nitrogen monoxide by propene over Ag/TiO₂–ZrO₂ 127

Separation

The use of soluble polymers to effect homogeneous catalyst separation and reuse 389

Sibunit

Porous carbon materials prepared from C_1 – C_3 hydrocarbons 341

Silver/alumina

Study of nitric oxide reduction over silver/alumina catalysts under lean conditions: Effects of reaction conditions and support 37

SO₂ poisoning

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

SO2

Effect of H_2O and SO_2 on the activity of Pd/TiO_2 catalysts in catalytic reduction of NO with methane in the presence of oxygen 3

Mechanistic considerations for the reduction of NO_x over Pt/Al₂O₃ and Al₂O₃ catalysts under lean-burn conditions 13

Solid oxide electrolyte cell

Syngas production from methane in an electrochemical membrane reactor 337

Spinel structure

The study of composition of novel high temperature catalysts for oxidative conversion of methane 197

Steam reforming

Syngas production from natural gas using ZrO_2 -supported metals 225

Sublimation

Activity and durability of Fe/ZSM-5 catalysts for lean burn NO_x reduction in the presence of water vapor 73

Sulfur dioxide oxidation

Two-bed catalytic system for NO_x/SO_x removal 85

Sulphated zirconia

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

Sulphur

Partial catalytic oxidation and condensation of methane by oxygen and sulphur 367

Supported aqueous phase catalysis

Palladium(0) allylic alkylation in a two-phase system or with a supported aqueous phase catalyst 471

Syngas

Methane partial oxidation. Challenge and perspective 191 Syngas production from methane in an electrochemical membrane reactor 337

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Synthesis gas

Partial oxidation of methane to synthesis gas at very short contact times 205

TAP studies

Catalytic selective oxidation of propane 315

Temperature-programmed desorption

Catalytic activity of perovskite-type oxide catalysts for direct decomposition of NO: Correlation between cluster model calculations and temperature-programmed desorption experiments 167

Thermal diffusion

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Thermo-programmed methods

Interaction of methane and oxygen with the surface of Li–Mn–O catalyst 263

Tin

Propane ammoxidation to acrylonitrile over a tin-based mixed-oxide catalyst 283

TiO₂

Two-bed catalytic system for NO_x/SO_x removal 85

TiO₂(B)

Kinetic study on propane ammoxidation to acrylonitrile over V-Sb-O/TiO₂(B) 325

Titani

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25 TPD

NO decomposition over sodium-promoted cobalt oxide 51 TPD-MS $\,$

In situ IR and temperature programmed desorption-mass spectrometry study of NO absorption and decomposition by silica supported 12-tungstophosphoric acid 145

tppts

Palladium(0) allylic alkylation in a two-phase system or with a supported aqueous phase catalyst 471

Transition metal catalysis

Supramolecular transition metal catalysts in two-phase systems 399

Tungsten

The carbon dioxide reforming of methane in a thermal diffusion column reactor (TDCR) and a pyrolysis reactor (PR) 347

Turnover frequency

Catalytic properties of Cu on sulphated zirconias for $DeNO_x$ in excess of oxygen using n-decane as reductant 117

Two-phase catalysis

Palladium(0) allylic alkylation in a two-phase system or with a supported aqueous phase catalyst 471

V-Sb-O

Kinetic study on propane ammoxidation to acrylonitrile over $V-Sb-O/TiO_2(B)$ 325

V_2O_5

Two-bed catalytic system for NO_x/SO_x removal 85 V_2O_5 - WO_3/TiO_2 catalysts

Chemical, structural and mechanistic aspects on NO_x SCR over commercial and model oxide catalysts 101

V2O5/TiO2

Catalytic selective oxidation of propane 315

Vanadia

Is advanced SCR technology at a standstill? A provocation for the academic community and catalyst manufacturers 25

Vanadia/alumina

Selective catalytic reduction of nitric oxide from stationary diesel sources by methanol over promoted alumina catalysts 137

Propane ammoxidation to acrylonitrile over a tin-based mixedoxide catalyst 283

Vanadyl pyrophosphate

Oxidation of propane over V_2O_5 - P_2O_5 -based catalysts at relatively low temperatures 297

Water-vapor effect

Oxidation of propane over V_2O_5 - P_2O_5 -based catalysts at relatively low temperatures 297

X-ray photoelectron spectroscopy

Catalytic activity of perovskite-type oxide catalysts for direct decomposition of NO: Correlation between cluster model calculations and temperature-programmed desorption experiments 167

XPS

Effect of H_2O and SO_2 on the activity of Pd/TiO₂ catalysts in catalytic reduction of NO with methane in the presence of oxygen 3

High-temperature carbon states at Pt(1 1 0) surface and their reactivity towards H_2 and O_2 353

XRD

NO decomposition over sodium-promoted cobalt oxide 51

ZSM-5

Oxidative and nonoxidative conversion of C_2 hydrocarbons on ZSM-5 303