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Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Kimya, Turkey 2005 - 2010
Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Kimya , Turkey 2003 - 2005
Undergraduate, Abant İzzet Baysal Üniversitesi, Fen Edebiyat Fakültesi, Kimya, Turkey 1997 - 2002

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Other, TEM Use and Operation, Massachusetts Institute of Technology, 2011
Other, XRD Use and Operation, Massachusetts Institute of Technology, 2011
Other, SEM Use and Operation, Massachusetts Institute of Technology, 2011
Other, NMR Use and Operation, Laboratoire de Chimie de Coordination, 2009

Dissertations

Doctorate, The Preparation and Characterization of Zeolite Confined Ruthenium(0) Nanoclusters and Investigation of Their Catalytic Activity in the Dehydrogenation of Sodium Borohydride and the Hydrogenation of Olefins/Arenes, Middle East Technical University, Fen Bilimleri Enstitüsü, Kimya, 2010
Postgraduate, The Preparation and Characterization of Water Soluble Ruthenium(0) Nanoclusters and Their Catalytic Activity in the Hydrolysis of Sodium Borohydride, Middle East Technical University, Fen Bilimleri Enstitüsü, Kimya, 2005

Research Areas

Chemistry, Physical Chemistry, Chemical Kinetics, nanocomposites, Inorganic Chemistry, Inorganic Reaction Mechanisms and Kinetics, Catalysis, nanoclusters, Organic Chemistry, Chemistry of Macromolecules, Natural Sciences

Academic Titles / Tasks

Academic Titles / Tasks

Professor, Van Yüzüncü Yil University, Fen Fakültesi, Kimya, 2018 - Continues
Associate Professor, Van Yüzüncü Yil University, Fen Fakültesi, Kimya, 2013 - 2018
Assistant Professor, Van Yüzüncü Yil University, Fen Fakültesi, Kimya, 2012 - 2013
Research Assistant PhD, Van Yüzüncü Yil University, Fen Fakültesi, Kimya, 2010 - 2012
Research Assistant, Middle East Technical University, Fen Fakültesi, Kimya, 2003 - 2010

Academic and Administrative Experience

Van Yüzüncü Yil University, 2019 - Continues

Advising Theses

Zahmakıran M., MIL-101 Metal Organik Kafes Yapısı Kararlı Paladyum (0) Nanokümeleri: Sentezi, Tanımlanması ve Amonyak-Boranın Metanoliz Tepkimesindeki Katalitik Performanslarının İncelenmesi, Postgraduate, N.Caner(Student), 2018
Zahmakıran M., NANOHİDROTALSİT KARARLI RUTENYUM NANOKÜMELERİ: SENTEZİ, TANIMLANMASI VE LİGNİN MODEL BİLEŞİKLERİNİN OKSİDASYON TEPKİMELERİNDEKİ KATALİTİK PERFORMANSI, Postgraduate, İ.Burak(Student), 2017
Zahmakıran M., Metal Organik Kafes Yapısında Kararlaştırılmış Geçiş Metal Nanokümeleri ve Fenol Hidrojenlenmesindeki Katalitik Performansları, Doctorate, İ.Efecan(Student), 2017
Zahmakıran M., Amin Grubu Fonksiyonellenmiş Silika Üzerine Tutturulmuş Metal Nanokümelerinin Sentezi, Tanımlanması ve Formik Asitin (HCOOH) Dehidrojenlenme Tepkimesindeki Katalitik Performanslarının İncelenmesi, Postgraduate, A.Bulut(Student), 2016
Zahmakıran M., Karbon Destekli Metal Nanokümelerinin Sentezi, Tanımlanması ve Formik Asitin (HCOOH) Dehidrojenlenme Tepkimesindeki Katalitik Performanslarının İncelenmesi, Postgraduate, M.Yurderi(Student), 2016

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Pumice-Supported Ruthenium nanoparticles as highly effective and recyclable catalyst in the hydrolysis of methylamine borane**
Dayan O., Kılıçer A., Bulut A., Ceylan E., Tayfun U., Uzun O., Zahmakiran M., Yurderi M.
International Journal of Hydrogen Energy, vol.52, pp.1-10, 2024 (SCI-Expanded)

II. **Development of MOF-based PVC membrane potentiometric sensor for determination of imipramine hydrochloride**
Subasi Y., Kanberoğlu G. S., ÇOLDUR F., Cubuk O., Zahmakiran M.
CHEMICAL PAPERS, vol.76, no.8, pp.5105-5117, 2022 (SCI-Expanded)

III. **Development of a PVC Membrane Potentiometric Sensor with Low Detection Limit and Wide Linear Range for the Determination of Maprotiline in Pharmaceutical Formulations**
Tekce S., Subasi Y., ÇOLDUR F., Kanberoğlu G. S., Zahmakiran M.
CHEMISTRYSELECT, vol.7, no.2, 2022 (SCI-Expanded)

IV. **Silica supported ternary NiRuPt alloy nanoparticles: Highly efficient heterogeneous catalyst for H2 generation via selective decomposition of hydrous hydrazine in alkaline solution**
Karataş Y., Gülcan M., Zahmakıran M.
International Journal of Hydrogen Energy, vol.45, pp.27098-27113, 2020 (SCI-Expanded)

V. **Ruthenium(0) nanoparticles stabilized by metal-organic framework as an efficient electrocatalyst for borohydride oxidation reaction**
Backovic G., Sljukic B., Kanberoğlu G. S., Yurderi M., Bulut A., Zahmakıran M., Santos D. M. F.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.45, pp.27056-27066, 2020 (SCI-Expanded)

VI. **Chromium based metal-organic framework MIL-101 decorated palladium nanoparticles for the methanolysis of ammonia-borane**
Caner N., Yurderi M., Bulut A., Kanberoğlu G. S., Kaya M., Zahmakıran M.
NEW JOURNAL OF CHEMISTRY, vol.44, pp.12435-12439, 2020 (SCI-Expanded)

VII. **Complete Dehydrogenation of Hydrazine Borane on Manganese Oxide Nanorod-Supported Ni@Ir Core-Shell Nanoparticles**
Yurderi M., Top T., Bulut A., Kanberoğlu G. S., Kaya M., Zahmakıran M.
Inorganic Chemistry, vol.59, pp.9728-9738, 2020 (SCI-Expanded)

VIII. **Ruthenium Nanoparticles Supported on Reduced Graphene Oxide: Efficient Catalyst for the Catalytic Reduction of Cr(VI) in the Presence of Amine-Boranes**
Yurderi M., Bulut A., Kanberoğlu G. S., Kaya M., Kanbur Y., Zahmakıran M.
CHEMISTRYSELECT, vol.5, pp.6961-6970, 2020 (SCI-Expanded)

IX. **Cobalt nanoparticles supported on alumina nanofibers (Co/Al2O3): Cost effective catalytic system for the hydrolysis of methylamine borane**
Bağuç I. B., Yurderi M., Bulut A., Çelebi M., Kanberoğlu G. S., Zahmakıran M., Kaya M., Aydemir M., Durap F., Baysal A.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.44, pp.28441-28450, 2019 (SCI-Expanded)

X. **Palladium nanoparticles decorated on amine functionalized graphene nanosheets as excellent nanocatalyst for the hydrogenation of nitrophenols to aminophenol counterparts**
Soğukömeroğulları H. G., Karataş Y., Çelebi M., Gülcan M., Sönmez M., Zahmakıran M.
JOURNAL OF HAZARDOUS MATERIALS, vol.369, pp.96-107, 2019 (SCI-Expanded)

XI. **Palladium Nanoparticles Decorated on Amine Functionalized Graphene Nanosheets as Excellent Nanocatalyst for the Hydrogenation of Nitrophenols to Aminophenol Counterparts**
Soğukömeroğulları H. G., Karataş Y., Çelebi M., Gülcan M., Sönmez M., Zahmakıran M.
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XII. **Palladium Nanoparticles Decorated on Amine Functionalized Graphene Nanosheets as Excellent Nanocatalyst for the Hydrogenation of Nitrophenols to Aminophenol Counterparts**
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XIII. **Nanocrystalline metal organic framework (MIL-101) stabilized copper Nanoparticles: Highly efficient nanocatalyst for the hydrolytic dehydrogenation of methylamine borane**
Bağuç I. B., ERTAS I. E., Yurderi M., BULUT A., Zahmakıran M., Kaya M.
INORGANICA CHIMICA ACTA, vol.483, pp.431-439, 2018 (SCI-Expanded)

XIV. **Amine-functionalized graphene nanosheet-supported PdAuNi alloy nanoparticles: efficient nanocatalyst for formic acid dehydrogenation**
Bulut A., Yurderi M., Kaya M., Aydemir M., Baysal A., Durap F., Zahmakıran M.
NEW JOURNAL OF CHEMISTRY, vol.42, no.19, pp.16103-16114, 2018 (SCI-Expanded)

XV. **Atomic Layer Deposition of Ruthenium Nanoparticles on Electrospun Carbon Nanofibers: A Highly Efficient Nanocatalyst for the Hydrolytic Dehydrogenation of Methylamine Borane**
Khalily M. A., Yurderi M., Haider A., BULUT A., Patil B., Zahmakıran M., Uyar T.
ACS APPLIED MATERIALS & INTERFACES, vol.10, no.31, pp.26162-26169, 2018 (SCI-Expanded)

XVI. **Synthesis, characterization, and enhanced formic acid electrooxidation activity of carbon supported MnOx promoted Pd nanoparticles**
BULUT A., YURDERI M., ALAL O., Kivrak H., Kaya M., Zahmakıran M.
ADVANCED POWDER TECHNOLOGY, vol.29, no.6, pp.1409-1416, 2018 (SCI-Expanded)

XVII. **Electrochemical sensing of hydrogen peroxide using Pd@Ag bimetallic nanoparticles decorated functionalized reduced graphene oxide**
Güler M., Türkoğlu V., BULUT A., Zahmakıran M.
ELECTROCHIMICA ACTA, vol.263, pp.118-126, 2018 (SCI-Expanded)

XVIII. **Palladium Nanoparticles Supported on Hydroxyapatite Nanospheres: Highly Active, Reusable and Green Catalyst for Suzuki - Miyaura Cross Coupling Reactions under Aerobic Conditions**
BULUT A., Aydemir M., Durap F., Gülcan M., Zahmakıran M.

CHEMISTRYSELECT, vol.3, no.5, pp.1569-1576, 2018 (SCI-Expanded)

XIX. **Nanohydrotalcite Supported Ruthenium Nanoparticles: Highly Efficient Heterogeneous Catalyst for the Oxidative Valorization of Lignin Model Compounds**
Baguc I. B., Çelebi M., Karakas K., Ertas I. E., Keles M. N., Kaya M., Zahmakıran M.
CHEMISTRYSELECT, vol.2, no.31, pp.10191-10198, 2017 (SCI-Expanded)

XX. **Pd(0) Nanoparticles Decorated on Graphene Nanosheets (GNS): Synthesis, Definition and Testing of the Catalytic Performance in the Methanolysis of Ammonia Borane at Room Conditions**
Karataş Y., Gülcan M., Çelebi M., Zahmakıran M.
CHEMISTRYSELECT, vol.2, no.29, pp.9628-9635, 2017 (SCI-Expanded)

XXI. **Methylene blue photocatalytic degradation under visible light irradiation on copper phthalocyanine-sensitized TiO2 nanopowders**
Cabir B., YURDERI M., CANER N., Ağırtaş M. S., Zahmakıran M., Kaya M.
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, vol.224, pp.9-17, 2017 (SCI-Expanded)

XXII. **Palladium Nanoparticles Decorated Graphene Oxide: Active and Reusable Nanocatalyst for the Catalytic Reduction of Hexavalent Chromium(VI)**
Çelebi M., Karakas K., Ertas I. E., Kaya M., Zahmakıran M.
CHEMISTRYSELECT, vol.2, no.27, pp.8312-8319, 2017 (SCI-Expanded)

XXIII. **Atomic layer deposition-SiO2 layers protected PdCoNi nanoparticles supported on TiO2 nanopowders: Exceptionally stable nanocatalyst for the dehydrogenation of formic acid**
Caner N., Bulut A., Yurderi M., Ertas I. E., Demir Kıvrak H., KAYA M., Zahmakıran M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.210, pp.470-483, 2017 (SCI-Expanded)

XXIV. **Nickel nanoparticles decorated on electrospun polycaprolactone/chitosan nanofibers as flexible, highly active and reusable nanocatalyst in the reduction of nitrophenols under mild conditions**
Karakas K., Celebioglu A., Çelebi M., Uyar T., Zahmakıran M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.203, pp.549-562, 2017 (SCI-Expanded)

XXV. **Keggin Type-Polyoxometalate Decorated Ruthenium Nanoparticles: Highly Active and Selective Nanocatalyst for the Oxidation of Veratryl Alcohol as a Lignin Model Compound**
Baguc I. B., Saglam S., Ertas I. E., Keles M. N., Çelebi M., Kaya M., Zahmakıran M.
CHEMISTRYSELECT, vol.2, no.8, pp.2487-2494, 2017 (SCI-Expanded)

XXVI. **Metal-organic framework (MIL-101) stabilized ruthenium nanoparticles: Highly efficient catalytic material in the phenol hydrogenation**
ERTAS I. E., Gülcan M., BULUT A., YURDERI M., Zahmakıran M.
Microporous and Mesoporous Materials, vol.226, pp.94-103, 2016 (SCI-Expanded)

XXVII. **PdAu-MnOx nanoparticles supported on amine-functionalized SiO2 for the room temperature dehydrogenation of formic acid in the absence of additives**
Karataş Y., Bulut A., Yurderı M., Ertas I. E., Alal O., Gülcan M., Çelebi M., Kıvrak H., Kaya M., Zahmakıran M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.180, pp.586-595, 2016 (SCI-Expanded)

XXVIII. **Palladium nanoparticles supported on amine-functionalized SiO2 for the catalytic hexavalent chromium reduction**
Çelebi M., Yurderi M., Bulut A., Kaya M., Zahmakıran M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.180, pp.53-64, 2016 (SCI-Expanded)

XXIX. **Carbon dispersed copper-cobalt alloy nanoparticles: A cost-effective heterogeneous catalyst with exceptional performance in the hydrolytic dehydrogenation of ammonia-borane**
Bulut A., Yurderı M., Ertas I. E., Çelebi M., Kaya M., Zahmakıran M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.180, pp.121-129, 2016 (SCI-Expanded)

XXX. **Rhodium nanoparticles stabilized by sulfonic acid functionalized metal-organic framework for the selective hydrogenation of phenol to cyclohexanone**
ERTAS I. E., Gülcan M., BULUT A., YURDERI M., Zahmakıran M.
JOURNAL OF MOLECULAR CATALYSIS A-CHEMICAL, vol.410, pp.209-220, 2015 (SCI-Expanded)

XXXI. **MnOx-Promoted PdAg Alloy Nanoparticles for the Additive-Free Dehydrogenation of Formic Acid at**

Room Temperature
BULUT A., YURDERI M., Karataş Y., Say Z., KIVRAK H., Kaya M., Gülcan M., Ozensoy E., Zahmakıran M.
ACS CATALYSIS, vol.5, no.10, pp.6099-6110, 2015 (SCI-Expanded)

XXXII. **Dihydrogen Phosphate Stabilized Ruthenium(0) Nanoparticles: Efficient Nanocatalyst for The Hydrolysis of Ammonia-Borane at Room Temperature**
Durap F., Caliskan S., ÖZKAR S., Karakas K., Zahmakıran M.
MATERIALS, vol.8, no.7, pp.4226-4238, 2015 (SCI-Expanded)

XXXIII. **Supported copper-copper oxide nanoparticles as active, stable and low-cost catalyst in the methanolysis of ammonia-borane for chemical hydrogen storage**
YURDERI M., BULUT A., ERTAS I. E., Zahmakıran M., Kaya M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.165, pp.169-175, 2015 (SCI-Expanded)

XXXIV. **Pd-MnOx nanoparticles dispersed on amine-grafted silica: Highly efficient nanocatalyst for hydrogen production from additive-free dehydrogenation of formic acid under mild conditions**
BULUT A., YURDERI M., Karataş Y., Zahmakıran M., KIVRAK H., Gülcan M., Kaya M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.164, pp.324-333, 2015 (SCI-Expanded)

XXXV. **Amine grafted silica supported CrAuPd alloy nanoparticles: superb heterogeneous catalysts for the room temperature dehydrogenation of formic acid**
Yurderı M., Bulut A., Caner N., Çelebi M., Kaya M., Zahmakıran M.
CHEMICAL COMMUNICATIONS, vol.51, no.57, pp.11417-11420, 2015 (SCI-Expanded)

XXXVI. **Ruthenium(0) nanoparticles stabilized by metal-organic framework (ZIF-8): Highly efficient catalyst for the dehydrogenation of dimethylamine-borane and transfer hydrogenation of unsaturated hydrocarbons using dimethylamine-borane as hydrogen source**
YURDERI M., BULUT A., Zahmakıran M., Gülcan M., ÖZKAR S.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.160, pp.534-541, 2014 (SCI-Expanded)

XXXVII. **Carbon supported trimetallic PdNiAg nanoparticles as highly active, selective and reusable catalyst in the formic acid decomposition**
YURDERI M., BULUT A., Zahmakıran M., Kaya M.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.160, pp.514-524, 2014 (SCI-Expanded)

XXXVIII. **Palladium(0) nanoparticles supported on hydroxyapatite nanospheres: active, long-lived, and reusable nanocatalyst for hydrogen generation from the dehydrogenation of aqueous ammonia-borane solution**
Karataş Y., YURDERI M., Gülcan M., Zahmakıran M., Kaya M.
JOURNAL OF NANOPARTICLE RESEARCH, vol.16, no.8, 2014 (SCI-Expanded)

XXXIX. **Iridium(O) nanoparticles dispersed in zeolite framework: A highly active and long-lived green nanocatalyst for-the hydrogenation of neat aromatics at room temperature**
Tonbul Y., Zahmakıran M., ÖZKAR S.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.148, pp.466-472, 2014 (SCI-Expanded)

XL. **Palladium(0) nanoparticles supported on metal organic framework as highly active and reusable nanocatalyst in dehydrogenation of dimethylamine-borane**
Gülcan M., Zahmakıran M., ÖZKAR S.
APPLIED CATALYSIS B-ENVIRONMENTAL, vol.147, pp.394-401, 2014 (SCI-Expanded)

XLI. **Amylamine stabilized platinum(0) nanoparticles: active and reusable nanocatalyst in the room temperature dehydrogenation of dimethylamine-borane**
Sen F., Karataş Y., Gülcan M., Zahmakıran M.
RSC ADVANCES, vol.4, no.4, pp.1526-1531, 2014 (SCI-Expanded)

XLII. **Hydroxyapatite-nanosphere supported ruthenium(0) nanoparticle catalyst for hydrogen generation from ammonia-borane solution: kinetic studies for nanoparticle formation and hydrogen evolution**
Durak H., Gülcan M., Zahmakıran M., Özkar S., Kaya M.
RSC ADVANCES, vol.4, no.55, pp.28947-28955, 2014 (SCI-Expanded)

XLIII. **Preparation of metal nanoparticles stabilized by the framework of porous materials**
Zahmakıran M., ÖZKAR S.

RSC Green Chemistry, pp.34-66, 2013 (SCI-Expanded)

XLIV. **Transition Metal Nanoparticles in Catalysis for the Hydrogen Generation from the Hydrolysis of Ammonia-Borane**
Zahmakıran M., ÖZKAR S.
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XLV. **Effect of silver encapsulation on the local structure of titanosilicate ETS-10**
Galioglu S., Zahmakiran M., KALAY Y. E., ÖZKAR S., Akata B.
MICROPOROUS AND MESOPOROUS MATERIALS, vol.159, pp.1-8, 2012 (SCI-Expanded)

XLVI. **Copper(0) Nanoparticles Supported on Silica-Coated Cobalt Ferrite Magnetic Particles: Cost Effective Catalyst in the Hydrolysis of Ammonia-Borane with an Exceptional Reusability Performance**
Kaya M., Zahmakıran M., ÖZKAR S., Volkan M.
ACS APPLIED MATERIALS & INTERFACES, vol.4, no.8, pp.3866-3873, 2012 (SCI-Expanded)

XLVII. **Preparation and characterization of LTA-type zeolite framework dispersed ruthenium nanoparticles and their catalytic application in the hydrolytic dehydrogenation of ammonia-borane for efficient hydrogen generation**
Zahmakiran M.
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, vol.177, no.8, pp.606-613, 2012 (SCI-Expanded)

XLVIII. **In Situ Formed Catalytically Active Ruthenium Nanocatalyst in Room Temperature Dehydrogenation/Dehydrocoupling of Ammonia-Borane from Ru(cod)(cot) Precatalyst**
Zahmakıran M., AYVALI T., PHILIPPOT K.
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XLIX. **Hydrogen generation from the hydrolysis of hydrazine-borane catalyzed by rhodium(0) nanoparticles supported on hydroxyapatite**
Celik D., Karahan S., Zahmakiran M., ÖZKAR S.
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L. **Rhodium(0) nanoparticles supported on nanocrystalline hydroxyapatite: Highly effective catalytic system for the solvent-free hydrogenation of aromatics at room temperature**
Zahmakiran M., ROMÁN-LESHKOV Y., ZHANG Y.
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LI. **Size-controllable APTS stabilized ruthenium(0) nanoparticles catalyst for the dehydrogenation of dimethylamine-borane at room temperature**
Zahmakiran M., PHILIPPOT K., OZKAR S., CHAUDRET B.
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LII. **Iridium nanoparticles stabilized by metal organic frameworks (IrNPs@ZIF-8): synthesis, structural properties and catalytic performance**
Zahmakiran M.
DALTON TRANSACTIONS, vol.41, no.41, pp.12690-12696, 2012 (SCI-Expanded)

LIII. **Hydrogen liberation from the hydrolytic dehydrogenation of dimethylamine-borane at room temperature by using a novel ruthenium nanocatalyst**
Caliskan S., Zahmakıran M., Durap F., ÖZKAR S.
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LIV. **A facile one-step synthesis of polymer supported rhodium nanoparticles in organic medium and their catalytic performance in the dehydrogenation of ammonia-borane**
Karahan S., Zahmakiran M., ÖZKAR S.
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LV. **Catalytic methanolysis of hydrazine borane: a new and efficient hydrogen generation system under mild conditions**
Karahan S., Zahmakıran M., ÖZKAR S.
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LVI. **Zeolite framework stabilized nickel(0) nanoparticles: Active and long-lived catalyst for hydrogen**

generation from the hydrolysis of ammonia-borane and sodium borohydride
Zahmakiran M., Ayvali T., Akbayrak S., Caliskan S., Celik D., ÖZKAR S.
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LVII. **Catalytic hydrolysis of hydrazine borane for chemical hydrogen storage: Highly efficient and fast hydrogen generation system at room temperature**
Karahan S., Zahmakiran M., ÖZKAR S.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.36, no.8, pp.4958-4966, 2011 (SCI-Expanded)

LVIII. **One-pot synthesis of colloidally robust rhodium(0) nanoparticles and their catalytic activity in the dehydrogenation of ammonia-borane for chemical hydrogen storage**
Ayvali T., Zahmakiran M., ÖZKAR S.
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LIX. **Metal nanoparticles in liquid phase catalysis; from recent advances to future goals**
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NANOSCALE, vol.3, no.9, pp.3462-3481, 2011 (SCI-Expanded)

LX. **Osmium(0) nanoclusters stabilized by zeolite framework; highly active catalyst in the aerobic oxidation of alcohols under mild conditions**
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LXI. **In Situ Formed "Weakly Ligated/Labile Ligand" Iridium(0) Nanoparticles and Aggregates as Catalysts for the Complete Hydrogenation of Neat Benzene at Room Temperature and Mild Pressures**
Bayram E., Zahmakiran M., ÖZKAR S., Finke R. G.
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LXII. **Ruthenium(0) nanoclusters stabilized by zeolite framework as superb catalyst for the hydrogenation of neat benzene under mild conditions: Additional studies including cation site occupancy, catalytic activity, lifetime, reusability and poisoning**
Zahmakiran M., KODAIRA T., ÖZKAR S.
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LXIII. **The preparation and characterization of gold(0) nanoclusters stabilized by zeolite framework: Highly active, selective and reusable catalyst in aerobic oxidation of benzyl alcohol**
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LXIV. **Ruthenium(0) Nanoclusters Stabilized by a Nanozeolite Framework: Isolable, Reusable, and Green Catalyst for the Hydrogenation of Neat Aromatics under Mild Conditions with the Unprecedented Catalytic Activity and Lifetime**
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LXV. **Zeolite confined rhodium(0) nanoclusters as highly active, reusable, and long-lived catalyst in the methanolysis of ammonia-borane**
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LXVI. **Zeolite confined copper(0) nanoclusters as cost-effective and reusable catalyst in hydrogen generation from the hydrolysis of ammonia-borane**
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LXVII. **Ruthenium(0) nanoclusters supported on hydroxyapatite: highly active, reusable and green catalyst in the hydrogenation of aromatics under mild conditions with an unprecedented catalytic lifetime**
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Zahmakıran M., Project Supported by Higher Education Institutions, Al2O3 Nano Fiberleri Destekli Metal Nanokümelerinin Geliştirilmesi ve Katalitik Uygulamaları, 2017 - 2019

Zahmakıran M., Yüksek N., TUBITAK Project, Antimikrobiyal Malzeme Olarak MOF Yapısında Gümüş Nanoparçacıklarının Geliştirilmesi, 2017 - 2019

Zahmakıran M., Çelebi M., TUBITAK Project, Cr(VI) İyonunun Katalitik/Fotokatalitik İndirgenme Tepkimeleri İçin Parçacık Boyut Kontrollü Pd@r-GO ile ZnO@r-GO Nano Kompozit Malzemelerinin Geliştirilmesi, 2016 - 2019

Zahmakıran M., Project Supported by Higher Education Institutions, Nanokatalitik Malzemeler ve Enerji Alanında Kullanımları, 2017 - 2018

Zahmakıran M., ÇALIMLI M. H., Project Supported by Higher Education Institutions, Nano Karbon Nitrit g-C3N4 Yüzeyine Dekore Geçiş Metal Nanokümelerinin Organometalik Yaklaşımla Sentezi Tanımlanması ve Fotokatalitik Performanslarının CrVI İyonunun İndirgenmesinde İncelenmesi, 2017 - 2018

Zahmakıran M., EFECAN ERTAŞ İ., Project Supported by Higher Education Institutions, Amonyak Borandan Dehidrojenlenme Yoluyla Tersinir Hidrojen Üretimini Sağlayacak Maliyeti Düşük Katalitik Etkinliği ve Ömrü Yüksek Bir Taşıyıcı Üzerine Tutturulmuş Metal Nanokatalizörlerinin MLD Yöntemiyle Geliştirilmesi ve Yakıt Hücresinde Uygulaması, 2016 - 2018

Zahmakıran M., Project Supported by Other Official Institutions, Nano Gübre Çözeltilerinin Geliştirilmesi, 2016 - 2018

Zahmakıran M., Project Supported by Higher Education Institutions, MIL-101 Metal Organik Kafes Yapısı Kararlı Paladyum(0) Nanokümeleri: Sentezi, Tanımlanması ve Amonyak-Boranın Metanoliz Tepkimesindeki Katalitik Performanslarının İncelenmesi, 2015 - 2018

Zahmakıran M., Project Supported by Higher Education Institutions, Lignin Model Bileşiklerinin Katalitik Yükseltgenme Tepkimeleri için Katalitikçe Etkin, Uzun Ömürlü ve Tekrar Kullanılabilir Yeni Heterojen Katalizörlerin Geliştirilmesi, 2015 - 2018

Zahmakıran M., TUBITAK Project, Formik Asit'ten Ultra-Yüksek Saflıkta H2(g) Üretimi için Mevcut Homojen Katalitik Teknolojilere Yeni Bir Alternatif: MNOx Nanoparçacık Destekli, Yüksek Karbon Monoksit (CO) Dirençli, Pd-Temelli Nanokümeler, 2015 - 2018

Zahmakıran M., Project Supported by Higher Education Institutions, Organometalik Başlangıç Komplekslerinin Nanomalzeme Sentezinde Kullanımının İncelenmesi, 2016 - 2017

Zahmakıran M., Kıvrak H. D., Project Supported by Higher Education Institutions, ALD Tekniğiyle Külçeleşme ve Sızmaya Karşı Dayanıklı Katı Destekli Metal Nanokatalizörlerinin Geliştirilmesi ve Formik Asitten Hidrojen Üretiminde Kullanılması, 2016 - 2017

Zahmakıran M., Project Supported by Higher Education Institutions, Amonyak-Borandan Alkoliz Tepkimesi Yoluyla Hidrojen Üretimini Sağlayacak Düşük Maliyetli Katı Destekli Metal Nanokatalizörlerinin Hazırlanması, Tanımlanması ve Katalitik Performanslarının Tespit Edilmesi, 2015 - 2016

Zahmakıran M., Project Supported by Higher Education Institutions, Karbon Destekli Metal Nanokümelerinin Sentezi,

Tanımlanması ve Formik Asitin (HCOOH) Dehidrojenlenme Tepkimesindeki Katalitik Performanslarının İncelenmesi, 2015 - 2016
Zahmakıran M., Project Supported by Higher Education Institutions, Amin Grubu Fonksiyonellenmiş Silika Üzerine Tutturulmuş Metal Nanokümelerinin Sentezi, Tanımlanması ve Formik Asitin (HCOOH) Dehidrojenlenme Tepkimesindeki Katalitik Performanslarının İncelenmesi, 2015 - 2016
Gülcan M., Zahmakıran M., TUBITAK Project, Fenolün Seçici Olarak Siklohekzanon'a İndirgenmesi için Lewis Asidik Karakter Gösteren Mikro Gözenekli Metal-Organik Kafes Yapısı (Mil-101) İçerisinde Kararlaştırılmış Metal Nanokatalizörlerinin Sentezi, Tanımlanması ve Katalitik Performanslarının İncelenmesi, 2013 - 2016
Zahmakıran M., Project Supported by Higher Education Institutions, Metal Organik Kafes Yapısında Kararlaştırılmış Metal(0) Nanokümelerinin Sentezi, Tanımlanması ve Alken ile Alkinlerin Dimetilamin-Boranı Hidrojen Kaynağı Olarak Kullanacağı Tandem Dehidrojenlenme-Hidrojenlenme Tepkimelerindeki Katalitik Performanslarının İncelenmesi, 2015 - 2014
Zahmakıran M., Project Supported by Higher Education Institutions, Hidrojen Üretiminde Formik Asitin Dehidrojenlenmesini Katalizleyecek Metal Nanokümelerinin Hazırlanması, Tanımlanması ve Katalitik Performanslarının İncelenmesi, 2013 - 2014
Zahmakıran M., TUBITAK Project, Intrazeolit Rutenyum (o) Nanokümelerinin Sentezi, Tanımlanması ve Katalizör Olarak Kullanımı, 2006 - 2008
Zahmakıran M., TUBITAK Project, Sodyum Borhidrürün Hidrolizini Katalizleyen Ru(0) Nanokümelerinin Sentezi ve Karakterizasyonu, 2006 - 2008

Activities in Scientific Journals

PeerJ The Journal of Life and Environmental Sciences, Committee Member, 2018 - Continues
Turkish Journal of Chemistry, Committee Member, 2016 - Continues

Memberships / Tasks in Scientific Organizations

American Association for the Advancement of Science, Member, 2011 - Continues
Material Research Society, Member, 2011 - Continues
Royal Chemical Society, Member, 2009 - Continues
American Chemical Society (ACS), Member, 2006 - Continues

Scientific Refereeing

Advanced Functional Materials, SCI Journal, July 2019
Advanced Energy Materials, SCI Journal, July 2019
Inorganic Chemistry Frontiers, SCI Journal, May 2019
ChemCatChem, SCI Journal, May 2019
Applied Organometallic Chemistry, SCI Journal, March 2019
ACS Applied Materials and Interfaces, SCI Journal, March 2019
ACS Catalysis, SCI Journal, May 2018
International Journal of Hydrogen Energy, SCI Journal, April 2018
Green Chemistry, SCI Journal, March 2018
ACS Catalysis, SCI Journal, January 2018
Applied Catalysis B: Environmental, SCI Journal, November 2017
Catalysis Science and Technology, SCI Journal, September 2017
Applied Organometallic Chemistry, SCI Journal, June 2017
Green Chemistry, SCI Journal, April 2017

Journal of Materials Chemistry A, SCI Journal, April 2017
Applied Catalysis B: Environmental, SCI Journal, March 2017
Applied Catalysis B: Environmental, SCI Journal, February 2017
Green Chemistry, SCI Journal, February 2017
Applied Organometallic Chemistry, SCI Journal, January 2017
ACS Applied Materials and Interfaces, SCI Journal, January 2017
ACS Sustainable Chemistry Engineering, SCI Journal, January 2017
Catalysis Communications, SCI Journal, October 2015
Catalysis Communications, SCI Journal, October 2015
Green Chemistry, SCI Journal, September 2015
Applied Materials & Interfaces, SCI Journal, September 2015
Catalysis Science and Technology, SCI Journal, September 2015
ACS Catalysis, SCI Journal, August 2015
Chemosphere, SCI Journal, July 2015
Journal of Power Sources, SCI Journal, June 2015
Advanced Energy Materials, SCI Journal, June 2015
RSC Advances , SCI Journal, June 2015
Applied Catalysis B: Environmental , SCI Journal, May 2015
Dalton Transactions, SCI Journal, April 2015
Applied Catalysis B: Environmental, SCI Journal, April 2015
Applied Catalysis B: Environmental, SCI Journal, March 2015
Chemical Communications, SCI Journal, February 2015
Applied Catalysis B: Environmental, SCI Journal, February 2015
Turkish Journal of Chemistry, SCI Journal, January 2015
Applied Catalysis B: Environmental, SCI Journal, January 2015
Turkish Journal of Chemistry, SCI Journal, January 2015
Applied Catalysis B: Environmental, SCI Journal, January 2015

Scientific Consultations

TÜBİTAK, Project Consultancy, Van Yüzüncü Yil University, Fen Fakültesi, Kimya, Turkey, 2019 - Continues

Scientific Research / Working Group Memberships

Nanomalzemeler ve Kataliz Araştırma Grubu, YÜZÜNCÜ YIL ÜNİVERSİTESİ, Turkey, www.nanomatcat.com, 2013 - Continues

Metrics

Publication: 133
Citation (WoS): 3990
Citation (Scopus): 4387
H-Index (WoS): 39
H-Index (Scopus): 40

Congress and Symposium Activities

MOF, Invited Speaker, Muğla, Turkey, 2019

V. Ulusal Kataliz Kongresi, Attendee, Adana, Turkey, 2014
COST MP 1402 Action Annual Meeting, Attendee, Brussel, Belgium, 2014
I. Ulusal Kataliz Yaz Okulu, Invited Speaker, Adana, Turkey, 2013
I. Ulusal Kataliz Yaz Okulu, Attendee, Malatya, Turkey, 2013
IV. Ulusal Anorganik Kimya Kongresi, Invited Speaker, Tokat, Turkey, 2013
IV. Ulusal Anorganik Kimya Kongresi, Attendee, Tokat, Turkey, 2013
North American Catalysis Conference, Attendee, Delaware, United States Of America, 2011
North American Catalysis Conference, Invited Speaker, Delaware, United States Of America, 2011
International Heterogeneous Catalysis Conference, Attendee, Brighton, United Kingdom, 2009
Ulusal Kataliz Konferansı, Attendee, Ankara, Turkey, 2007
Ulusal Kimya Kongresi, Attendee, Aydın, Turkey, 2005
Metal Hydrogen Systems Conference, Attendee, Kraków, Poland, 2005

Scholarships

EU-2008 Framework Nanotech-Project (CNRS) Young Scientist Support Program, European Commission, 2008 - Continues
Yurt Dışı Doktora Sırası Araştırma Bursu, TUBITAK, 2006 - Continues
Yurt İçi Lisansüstü Bursu, TUBITAK, 2003 - Continues

Awards

Zahmakıran M., Mühendislik, Doğa ve Sağlık Bilimleri Kategorisi İlim Yayma Ödülü, İlim Yayma Vakfı, December 2019
Zahmakıran M., TÜBİTAK Bilim Teşvik Ödülü, TÜBİTAK, December 2018
Zahmakıran M., Georg Forster Research Fellowship, Alexander Von Humboldt Vakfı, December 2015
Zahmakıran M., Üstün Başarılı Genç Bilim İnsanı Ödülü, Bilim Akademisi, March 2014
Zahmakıran M., Seçkin Genç Bilim İnsanı Ödülü, Türkiye Bilimler Akademisi, September 2013
Zahmakıran M., FABED Eser Tümen Araştırma Ödülü, İTÜ-Eser Tümen Araştırma Vakfı, August 2013