

Assoc. Prof. YILMAZ AKSU

Personal Information

Office Phone: [+90 242 310 6391](tel:+902423106391)

Fax Phone: [+90 242 310 6306](tel:+902423106306)

Email: yilmazaksu@akdeniz.edu.tr

Web: <https://avesis.akdeniz.edu.tr/yilmazaksu>

Address: Akdeniz Üniversitesi, Mühendislik Fakültesi, Malzeme Bilimi ve Mühendisliği Bölümü, 07058 Antalya

International Researcher IDs

ORCID: 0000-0003-3687-890X

Publons / Web Of Science ResearcherID: C-3604-2016

Yoksis Researcher ID: 177910

Education Information

Post Doctorate, Technische Universitaet Berlin, Matematik Ve Fen Fakültesi, Kimya-Fonksiyonel Malzeme Sentezi , Germany 2005 - 2012

Doctorate, Technische Universitaet Berlin, Matematik Ve Fen Fakültesi, Institut Für Chemie, Germany 1998 - 2004

Postgraduate, Akdeniz University, Fen Edebiyat Fakültesi, Kimya Bölümü, Turkey 1994 - 1996

Undergraduate, Akdeniz University, Fen Edebiyat Fakültesi, Kimya Bölümü, Turkey 1990 - 1994

Foreign Languages

German, C1 Advanced

French, C1 Advanced

English, C1 Advanced

Dissertations

Doctorate, "Organokalay Dendrimerlerin Sentezlenmesi ve Yapılarının Aydınlatılması" , Technische Universitaet Berlin, Matematik Ve Fen Fakültesi, Kimya Enstitüsü, 2005

Postgraduate, "Metal Alkolatların β -diketon ve β -ketoesterlerle Kompleksleşmeleri ve Komplekslerin Hidroliz Reaksiyonları" , Akdeniz University, Faculty of Science, Kimya, 1996

Research Areas

Material science and engineering, Ceramic Materials, Semiconductor and Superconductor Materials, Optical Properties, Electrical and Magnetic Properties, Chemical and Electrochemical Properties, Composites, Polymeric Materials, Plating, Material Characterization, Nanomaterials, Structure-Property Relationship, Chemistry, Physical Chemistry, Functional Polymers, Composites, nanocomposites, New Technologies in Polymer Chemistry, Polymeric Materials, Spectroscopy, Inorganic Chemistry, Transition Metals, Inorganic Polymers, Catalysis, nanoclusters, Organometallic Chemistry, Silicon Chemistry, Novel Ligands, Clusters/Solids and Surfaces, Organic Chemistry, Chemistry of Macromolecules, Organic Spectroscopy, Organometallics, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Akdeniz University, Faculty of Engineering, Malzeme Bilimi Ve Mühendisliği, 2012 - Continues

Courses

Undergraduate

Malzeme Bilimi ve Mühendisliği, Undergraduate, 2014 - 2015

Organik Kimya, Undergraduate, 2013 - 2014

Malzeme Bilimi, Undergraduate, 2012 - 2013

Genel Kimya, Undergraduate, 2013 - 2014, 2012 - 2013

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **The crystal structure of the co-crystal tetrakis[2-(tris(4-methoxyphenyl)stannyl)ethyl]silane - tetrahydrofuran - toluene - tetrahydrofuran (1/1/1) C103H116O13SiSn4**
Aksu Y., Irran E., Aksu S.
ZEITSCHRIFT FÜR KRISTALLOGRAPHIE - NEW CRYSTAL STRUCTURES, vol.237, no.4, pp.759-763, 2022 (SCI-Expanded)
- II. **Silica material variation for the $MnxOy-Na2WO4/SiO2$**
Yildiz M., AKSU Y., Simon U., Otremba T., Kailasam K., Goebel C., Girgsdies F., Goerke O., Rosowski F., Thomas A., et al.
APPLIED CATALYSIS A-GENERAL, vol.525, pp.168-179, 2016 (SCI-Expanded)
- III. **Support material variation for the $MnxOy-Na2WO4/SiO2$ catalyst.**
Yildiz M., Simon U., Otremba T., AKSU Y., Kailasam K., Thomas A., Schomaecker R., Arndt S.
CATALYSIS TODAY, vol.228, pp.5-14, 2014 (SCI-Expanded)
- IV. **Enhanced catalytic performance of $MnxOy-Na2WO4/SiO2$ for the oxidative coupling of methane using an ordered mesoporous silica support**
Yildiz M., AKSU Y., Simon U., Kailasam K., Goerke O., Rosowski F., Schomaecker R., Thomas A., Arndt S.
CHEMICAL COMMUNICATIONS, vol.50, no.92, pp.14440-14442, 2014 (SCI-Expanded)
- V. **A One-Pot Approach to Mesoporous Metal Oxide Ultrathin Film Electrodes Bearing One Metal Nanoparticle per Pore with Enhanced Electrocatalytic Properties**
Guiet A., Reier T., Heidary N., Felkel D., Johnson B., Vainio U., Schlaad H., Aksu Y., Driess M., Strasser P., et al.
CHEMISTRY OF MATERIALS, vol.25, no.23, pp.4645-4652, 2013 (SCI-Expanded)
- VI. **Chemoselective reduction of alpha,beta-unsaturated aldehydes and ketones over mesoporous B(O(i) Pr)(3)-MCM-41 catalyst via MPV reduction process: preparation, characterization and catalytic application**
Uysal B., Aksu Y., Oksal B. Ş.
JOURNAL OF POROUS MATERIALS, vol.20, no.1, pp.115-127, 2013 (SCI-Expanded)
- VII. **Facile Low-Temperature Approach to Tin-Containing ZnO Nanocrystals with Tunable Tin Concentrations Using Heterobimetallic Sn/Zn Single-Source Precursors**
Tsaroucha M., AKSU Y., Epping J. D., Driess M.
CHEMPLUSCHEM, vol.78, no.1, pp.62-69, 2013 (SCI-Expanded)
- VIII. **Supported ZnO catalysts for the conversion of alkanes: About the metamorphosis of a heterogeneous catalyst**
Arndt S., Uysal B., Berthold A., Otrebma T., Aksu Y., Driess M., Schomaecker R.
JOURNAL OF NATURAL GAS CHEMISTRY, vol.21, no.5, pp.581-594, 2012 (SCI-Expanded)
- IX. **From Molecular Gallium and Indium Siloxide Precursors to Amorphous Semiconducting Transparent Oxide Layers for Applications in Thin-Film Field-Effect Transistors**
Samedov K., AKSU Y., Driess M.

CHEMPLUSCHEM, vol.77, no.8, pp.663-674, 2012 (SCI-Expanded)

- X. **Heterometallic Indium Lithium Halostannates: Low-Temperature Single-Source Precursors for Tin-Rich Indium Tin Oxides and Their Application for Thin-Film Transistors**
Samedov K., AKSU Y., Driess M.
CHEMISTRY-A EUROPEAN JOURNAL, vol.18, no.25, pp.7766-7779, 2012 (SCI-Expanded)
- XI. **Facile Molecular Approach to Transparent Thin-Film Field-Effect Transistors with High-Performance Using New Homo- and Heteroleptic Indium(III)-Tin(II) Single-Source Precursors**
Samedov K., AKSU Y., Driess M.
CHEMISTRY OF MATERIALS, vol.24, no.11, pp.2078-2090, 2012 (SCI-Expanded)
- XII. **Li-doped MgO From Different Preparative Routes for the Oxidative Coupling of Methane**
Arndt S., Simon U., Heitz S., Berthold A., Beck B., Goerke O., Epping J. -, Otremba T., AKSU Y., Irran E., et al.
TOPICS IN CATALYSIS, vol.54, no.16-18, pp.1266-1285, 2011 (SCI-Expanded)
- XIII. **Synthesis of Stannyl-Substituted Zn₄O₄ Cubanes as Single-Source Precursors for Amorphous Tin-Doped ZnO and Zn₂SnO₄ Nanocrystals and Their Potential for Thin Film Field Effect Transistor Applications**
Tsaroucha M., AKSU Y., Irran E., Driess M.
CHEMISTRY OF MATERIALS, vol.23, no.9, pp.2428-2438, 2011 (SCI-Expanded)
- XIV. **Facile Access to Homo- and Heteroleptic, Triply Bonded Dimolybdenum Hexaalkoxides with Unsaturated Alkoxide Ligands**
Krackl S., Ma J., AKSU Y., Driess M.
EUROPEAN JOURNAL OF INORGANIC CHEMISTRY, no.11, pp.1725-1732, 2011 (SCI-Expanded)
- XV. **Raman and Photoluminescence Spectroscopic Detection of Surface-Bound Li⁺O₂- Defect Sites in Li-Doped ZnO Nanocrystals Derived from Molecular Precursors**
Kirste R., AKSU Y., Wagner M. R., Khachadorian S., Jana S., Driess M., Thomsen C., Hoffmann A.
CHEMPHYSICHEM, vol.12, no.6, pp.1189-1195, 2011 (SCI-Expanded)
- XVI. **A Molecular Precursor Approach to Tunable Porous Tin-Rich Indium Tin Oxide with Durable High Electrical Conductivity for Bioelectronic Devices**
AKSU Y., Frasca S., Wollenberger U., Driess M., Thomas A.
CHEMISTRY OF MATERIALS, vol.23, no.7, pp.1798-1804, 2011 (SCI-Expanded)
- XVII. **Unprecedented Alkylzinc-Magnesium Alkoxide Clusters as Suitable Organometallic Precursors for Magnesium-Containing ZnO Nanoparticles**
Heitz S., AKSU Y., Merschjann C., Driess M.
CHEMISTRY-A EUROPEAN JOURNAL, vol.17, no.14, pp.3904-3910, 2011 (SCI-Expanded)
- XVIII. **Entrapment of Heteropolyacids in Metallic Silver Matrices: Unique Heterogenized Acid Catalysts**
Krackl S., Company A., AKSU Y., Avnir D., Driess M.
CHEMCATCHEM, vol.3, no.1, pp.227-232, 2011 (SCI-Expanded)
- XIX. **Molecular Heterobimetallic Approach to Li-Containing MgO Nanoparticles with Variable Li-Concentrations Using Lithium-Methylmagnesium Alkoxide Clusters**
Heitz S., Epping J., AKSU Y., Driess M.
CHEMISTRY OF MATERIALS, vol.22, no.16, pp.4563-4571, 2010 (SCI-Expanded)
- XX. **Reply to Comment on "Methylmagnesium Alkoxide Clusters with Mg₄O₄ Cubane- and Mg₇O₈ Biscubane-Like Cores: Organometallic Precursors for Low-Temperature Formation of MgO Nanoparticles with Variable Surface Defects"**
Heitz S., AKSU Y., Merschjann C., Driess M.
CHEMISTRY OF MATERIALS, vol.22, no.15, pp.4513, 2010 (SCI-Expanded)
- XXI. **Hydrothermal Synthesis and Crystal Structures of Cd(II)-Based 1D Coordination Polymer and Mn(II) Coordination Complex with Mixed N- and O-donor Ligands: [Cd-2(4-4'-bpy)(2)(pa)(4)] (n) center dot 0.25(H₂O) and [Mn(4-4'-bpy)(2)(pa)(H₂O)(3)]ClO₄ center dot 2(H₂O)**
Kani I., AKSU Y.
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.20, no.1, pp.69-77, 2010 (SCI-Expanded)

- XXII. **Methylmagesium Alkoxide Clusters with Mg₄O₄ Cubane- and Mg₇O₈ Biscubane-Like Cores: Organometallic Precursors for Low-Temperature Formation of MgO Nanoparticles with Variable Surface Defects**
Heitz S., AKSU Y., Merschjann C., Driess M.
CHEMISTRY OF MATERIALS, vol.22, no.4, pp.1376-1385, 2010 (SCI-Expanded)
- XXIII. **Activation of C-H bonds mediated by Mo Mo moieties in heterobimetallic Zn/O/Mo clusters**
Ma J., AKSU Y., Gregoriades L. J., Sauer J., Driess M.
DALTON TRANSACTIONS, vol.39, no.1, pp.103-106, 2010 (SCI-Expanded)
- XXIV. **Lithium related deep and shallow acceptors in Li-doped ZnO nanocrystals**
Rauch C., Gehlhoff W., Wagner M. R., Malguth E., Callsen G., Kirste R., Salameh B., Hoffmann A., Polarz S., AKSU Y., et al.
JOURNAL OF APPLIED PHYSICS, vol.107, no.2, 2010 (SCI-Expanded)
- XXV. **A Systematic Study on Zinc Oxide Materials Containing Group I Metals (Li, Na, K)-Synthesis from Organometallic Precursors, Characterization, and Properties**
Polarz S., Orlov A., Hoffmann A., Wagner M. R., Rauch C., Kirste R., Gehlhoff W., AKSU Y., Driess M., van den Berg M. W. E., et al.
CHEMISTRY OF MATERIALS, vol.21, no.16, pp.3889-3897, 2009 (SCI-Expanded)
- XXVI. **The Catalytic Activity of Zinc Oxides from Single Source Precursors with Additives for the C-H Activation of Lower Alkanes**
Arndt S., AKSU Y., Driess M., Schomaecker R.
CATALYSIS LETTERS, vol.131, no.1-2, pp.258-265, 2009 (SCI-Expanded)
- XXVII. **A Low-Temperature Molecular Approach to Highly Conductive Tin-Rich Indium Tin Oxide Thin Films with Durable Electro-Optical Performance**
AKSU Y., Driess M.
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION, vol.48, no.42, pp.7778-7782, 2009 (SCI-Expanded)
- XXVIII. **One-pot synthesis of lithium alkylzinc alkoxo heterocubanes with a LiZn₃O₄ core as suitable organometallic precursors for Li-containing ZnO nanocrystals**
Jana S., AKSU Y., Driess M.
DALTON TRANSACTIONS, no.9, pp.1516-1521, 2009 (SCI-Expanded)
- XXIX. **Synthesis and characterization of alpha,omega-bis[tri-(w-triphenylstannyl)butylstannyl]alkanes as starting materials for organotin dendrimers**
Aksu Y., Aksu S., Schumann H.
APPLIED ORGANOMETALLIC CHEMISTRY, vol.21, no.7, pp.521-530, 2007 (SCI-Expanded)
- XXX. **Synthesis and characterization of silicon-based group 14 dendrimers Si{(CH₂)₂Sn[(CH₂)₄MPh₃](₃)}₄ (M = Ge, Sn)**
Schumann H., AKSU Y.
ORGANOMETALLICS, vol.26, no.2, pp.397-402, 2007 (SCI-Expanded)
- XXXI. **Synthesis and characterization of new silicon-centred tin-dendrimers Si[CH₂CH₂SnR₃](₄). Single-crystal X-ray structure of the tetrahydrofuran adduct of tetrakis [2-(tribromostannyl)ethyl]silane**
Schumann H., AKSU Y., Schutte S., Wassermann B. C., Muehle S. H.
JOURNAL OF ORGANOMETALLIC CHEMISTRY, vol.691, no.22, pp.4717-4724, 2006 (SCI-Expanded)
- XXXII. **Convergent synthesis and characterization of organotin dendrimers Sn{(CH₂)_nSn[(CH₂)₄SnPh₃](₃)}₄ (n=3, 4)**
Schumann H., AKSU Y., Wassermann B. C.
ORGANOMETALLICS, vol.25, no.14, pp.3428-3434, 2006 (SCI-Expanded)
- XXXIII. **Synthesis and characterization of some organo-all-tin dendrimers with different peripheral substituents**
Schumann H., AKSU Y., Wassermann B. C.
JOURNAL OF ORGANOMETALLIC CHEMISTRY, vol.691, no.8, pp.1703-1712, 2006 (SCI-Expanded)
- XXXIV. **Synthesis and characterization of water-soluble tin-based metallodendrimers**
Schumann H., Wassermann B. C., Schutte S., Velder J., AKSU Y., Krause W., Raduchel B.

Papers Published in Refereed Scientific Meetings

- I. **a,w-bis [tri-(w-triphenylstannyl)butylstannyl]alkanes as starting materials for organotin dendrimers for use in biomedical applications**
AKSU Y., AKSU S., Schumann H.
5th EuCheMS Chemistry Congress, İstanbul, Turkey, 31 August - 04 September 2014, pp.60
- II. **?, ?-bis [tri-(w-triphenylstannyl)butylstannyl]alkanes as starting materials for organotin dendrimers for use in biomedical applications**
AKSU Y., Aksu S., Schumann H.
5th EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, İstanbul, Turkey, 31 August - 04 September 2014, pp.60
- III. **Transparent Thin-Film Field-Effect Transistors with High-Performance Using Novel Homo- and Heteroleptic Indium(III)-Tin(II) Single-Source Precursors**
AKSU Y., Samedov K., Driess M.
5th EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, İstanbul, Turkey, 31 August - 04 September 2014, pp.65
- IV. **Biosensors comprising enzymes coupled to mesoporous tin-rich indium tin oxide based transparent and conductive thin films prepared by employing a single source precursor approach**
AKSU Y., Frasca S., Aksu S., Thomas A., Wollenberger U., Driess M.
IUPAC 44th World Chemistry Congress, İstanbul, Turkey, 11 - 16 August 2013, pp.109
- V. **Biosensors comprising enzymes coupled to mesoporous tin-rich indium tin oxide based transparent and conductive thin films prepared by employing a single source precursor approach**
AKSU Y., Frasca S., AKSU S., Thomas A., Wollenberger U., Driess M.
44th World Chemistry Congress, IUPAC 2013, İstanbul, Turkey, 11 - 16 August 2013, pp.109
- VI. **Predesigning heterogeneous catalysts on the molecular scale: a unique way to high quality Lidoped MgO and related materials**
AKSU Y., Heitz S., Driess M.
IUPAC 44th World Chemistry Congress, İstanbul, Turkey, 11 - 16 August 2013, pp.108
- VII. **Mn-Na₂WO₄/SiO₂ – An Industrial Catalyst for Methane Coupling?**
Yıldız M., Arndt S., Simon U., AKSU Y., Otremba T., Berthold A., Gorke O., Thomas A., Schubert H., Schomaecker R.
Proceedings of the DGMK-Conference “Reducing the Carbon Footprint of Fuels and Petrochemicals, Berlin, Germany, 8 - 10 October 2012, pp.125-132
- VIII. **The Support Effect of the Mn/Na₂WO₄ Catalyst in the Oxidative Coupling of Methane**
Yıldız M., Arndt S., Simon U., AKSU Y., Schubert H., Schomaecker R.
DGMK (German Society for Petroleum and Coal Science and Technology) International Conference, “Catalysis-Innovative Applications in Petrochemistry and Refining”, Dresden, Germany, 4 - 06 October 2011, pp.173-180
- IX. **The Support Effect of the Mn/Na₂WO₄ Catalyst in the Oxidative Coupling of Methane**
Schomaecker R., Yıldız M., Simon U., AKSU Y., Schubert H., Arndt S.
DGMK (German Society for Petroleum and Coal Science and Technology) International Conference, Catalysis-Innovative Applications in Petrochemistry and Refining”, Dresden, Germany, 4 - 06 October 2011, pp.173-180
- X. **Mesoporous Transparent Conductive Bio-interfaces**
Güet A., Perez F., Frasca S., Thomas A., AKSU Y., Driess M., Wollenberger U., Fischer A.
XV. International Symposium on Relations Between Homogeneous and Heterogeneous Catalysis, Berlin, Germany, 11 - 16 September 2011, pp.13
- XI. **Towards OER-Catalyst Materials from Heterobimetallic Single Source Precursors**
Pfrommer J., AKSU Y., Driess M.
XV. International Symposium on Relations Between Homogeneous and Heterogeneous Catalysis, Berlin, Germany, 11 - 16 September 2011, pp.37

- XII. **Single Source Precursor Approach as a Unique Way to Design Li-doped MgO on the Molecular Scale**
AKSU Y., Heitz S., Arndt S., Schomaecker R., Driess M.
XV. International Symposium on Relations Between Homogeneous and Heterogeneous Catalysis, Berlin, Germany, 11 - 16 September 2011, pp.5
- XIII. **The Role of the Support of Mn-Na-W/Silica and Na-W/Silica**
Yıldız M., Arndt S., Simon U., AKSU Y., Thomas A., Schubert H., Schomaecker R.
EuropaCat X 2011, Glasgow, United Kingdom, 28 August - 02 September 2011, pp.61
- XIV. **Are Li/MgO and Gd-Li/MgO Suitable Catalysts for Methane Coupling?**
Arndt S., Simon U., Heitz S., Otremba T., Berthold A., AKSU Y., Dinse K. P., Driess M., Schubert H., Schomaecker R.
EuropaCat X 2011, Glasgow, United Kingdom, 28 August 2011 - 02 September 2010, pp.97
- XV. **A Heterobimetallic Single Source Precursor Approach for OER Catalyst Materials**
Pfrommer J., AKSU Y., Driess M.
ISACS4 Challenges in Renewable Energy, Boston, United States Of America, 5 - 08 July 2011, pp.73
- XVI. **Mesoporous transparent conducting oxides as a platform for bioelectronics**
Frasca S., Richter C., von Graberg T., AKSU Y., Fischer A., Smarsky B. M., Hildebrandt P., Driess M., Wollenberger U.
7. German Bio-Sensor Symposium, Heilbad-Heiligenstadt, Germany, 3 - 06 April 2011, pp.31
- XVII. **A single source molecular precursor approach to tunable porous tin-rich ITO film electrode for bioelectronic devices**
AKSU Y., Driess M., Thomas A., Fischer A., Frasca S., Wollenberger U.
23. German Zeolith-Congress, Erlangen, Germany, 2 - 11 March 2011, pp.172
- XVIII. **Low Temperature Preparation of Zinc Oxide and Indium Tin Oxide Thin Films with Durable Electro-Optical Performance Using Molecular Precursors**
AKSU Y., Driess M.
GDCh (German Chemical Society) 15th Meeting of the Wöhler-Association, Freiburg, Germany, 29 September - 01 October 2010, pp.32
- XIX. **Mesoporous ITO and Tin-Rich ITO as a Novel Platform for Bioelectronics**
Frasca S., von Graberg T., AKSU Y., Feng J., Thomas A., Smarsky B. M., Hildebrandt P., Driess M., Wollenberger U.
61st Annual Meeting of the International Society of Electrochemistry, Nice, France, 26 September - 01 October 2010, pp.111
- XX. **A Single-Source Precursor Approach for the Preparation of Stable Tin-Rich Indium Tin Oxide Thin Films with High Conductivity**
AKSU Y., Driess M.
GDCh (German Chemical Society)-Science Forum Chemistry, Frankfurt Am Main, Germany, 30 August - 02 September 2010, pp.341
- XXI. **A New Organometallic Route for the Synthesis of Sn-Doped ZnO nanocrystals and their Optoelectronic Properties**
AKSU Y., Tsaroucha M., Driess M.
GDCh (German Chemical Society)-Science Forum Chemistry, Frankfurt Am Main, Germany, 30 August - 02 September 2010, pp.340
- XXII. **Preparation and Characterization of Li-doped ZnO Nanocrystals Synthesized via a Single Source Molecular Precursor Approach**
AKSU Y., Jana S., Driess M.
GDCh (German Chemical Society)-Science Forum Chemistry, Frankfurt Am Main, Germany, 30 August - 02 September 2010, pp.344
- XXIII. **Nanocrystalline Molybdenum-Doped Zinc Oxide from a Unique Molybdenum-Zinc Oxo Clusters and its Potential Application as a New TCO**
AKSU Y., Ma J. G., Driess M.
GDCh (German Chemical Society)-Science Forum Chemistry, Frankfurt Am Main, Germany, 30 August - 02 September 2010, pp.342
- XXIV. **Nanosized-ZnO-Based flexible FETs with High Mobility Prepared from Organometallic Single Source Precursors**

AKSU Y., Driess M.

GDCh (German Chemical Society)-Science Forum Chemistry, Frankfurt Am Main, Germany, 30 August - 02 September 2010, pp.343

- XXV. **ZnO supported on Al₂O₃, SiO₂, TiO₂ and ZrO₂ for the Activation of Methane, Ethane and Propane**
Arndt S., Uysal B., Otremba T., AKSU Y., Schomaecker R.
14th Nordic Symposium on Catalysis, Marienlyst, Denmark, 29 - 31 August 2010, pp.73
- XXVI. **Coupling of Methane with Li/MgO-Catalysts**
Arndt S., Laugel G., Simon U., Heitz S., Otremba T., AKSU Y., Berthold A., Driess M., Schubert H., Schomaecker R.
14th Nordic Symposium on Catalysis, Marienlyst, Denmark, 29 - 31 August 2010, pp.70
- XXVII. **Encoding tin-rich indium tin oxide-based nanoscaled materials with excellent optoelectronic properties via single source precursors**
AKSU Y., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.34
- XXVIII. **Synthesis of heterobimetallic Sn/Zn-alkoxides and their controlled transformation to Amorphous Sn-doped ZnO or Zn₂SnO₄ nanocrystals**
Tsaroucha M., AKSU Y., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.34
- XXIX. **New Directions in Materials Synthesis for Energy-saving**
Driess M., AKSU Y., Samedov K., Yıldız M., Heitz S., Jana S.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.90
- XXX. **High quality MgO-based catalysts design by single source precursor approach**
Heitz S., AKSU Y., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.68
- XXXI. **Nanoporous tin-rich indium tin oxide with improved electrical properties by templating a molecular single-source precursor for bioelectronic applications**
AKSU Y., Thomas A., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.34
- XXXII. **Molybdenum in catalysis: From molecular model systems to bio-inspired and heterogeneous catalysts**
Krackl S., AKSU Y., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.62
- XXXIII. **Doped-metal matrices: a new approach for the design of versatile catalytic materials**
Krackl S., AKSU Y., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.68
- XXXIV. **Cubane-like Alkyl Zinc Alkoxides as excellent precursors for the preparation of nanosized ZnO-based Field-effect transistors (FETs) with high mobility at low temperature**
AKSU Y., Driess M.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.34
- XXXV. **Doped-metal matrices: a new approach for the design of versatile catalytic materials**
AKSU Y.
3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.68
- XXXVI. **From heterobimetallic alkyl-Mg-Zn-alkoxides to Mg@ZnO nanoparticles – A unique bottom-up**

approach to large band gap zinc oxide

Heitz S., AKSU Y., Driess M.

3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Nürnberg, Germany, 20 August - 02 September 2010, pp.34

- XXXVII. **A Molecular Single-Source Precursor Approach to Synthesize Mesoporous Tin-rich Indium Tin Oxide for Photovoltaic Applications**
AKSU Y., Thomas A., Driess M.
GDCh (German Chemical Society) Catalysis and Photochemistry for Energy Technologies, Rostock, Germany, 29 June - 01 July 2010, pp.15
- XXXVIII. **Li/MgO as catalyst for coupling of methane, single source precursor route for well defined Li/MgO**
Arndt S., Heitz S., Otremba T., Laugel G., AKSU Y., Driess M., Schomaecker R.
43th Annual Meeting of the German Catalysis Scientists, Weimar, Germany, 10 - 12 March 2010, pp.151
- XXXIX. **Single Source Precursor Approach to Nanocrystalline Magnesium Oxide with Tunable Surface Defects**
Heitz S., AKSU Y., Driess M.
EUROMAT 2009 European Congress and Exhibition on Advanced Materials and Processes, Glasgow, United Kingdom, 7 October - 10 September 2009, pp.19
- XL. **The Catalytic Activity of Zinc Oxide Supported on Aerosil for C-H Activation of Light Alkanes**
Arndt S., Uysal B., AKSU Y., Otremba T., Schomaecker R.
Proceedings of the DGMK-Conference "Production and Use of light Olefins, Dresden, Germany, 28 - 30 September 2009, pp.39-46
- XLI. **Preparation of Highly Conductive, Transparent and Stable Indium-Tin-Oxide Thin Films Using an Organometallic Single-Source Precursor**
AKSU Y., Driess M.
EUROMAT 2009 European Congress and Exhibition on Advanced Materials and Processes, Glasgow, United Kingdom, 7 - 10 September 2009, pp.22
- XLII. **Design of Heterogeneous Catalysts on the Molecular Scale: A Unique Way to High Quality Li-doped MgO**
Heitz S., AKSU Y., Driess M.
EUROMAT 2009 European Congress and Exhibition on Advanced Materials and Processes, Glasgow, United Kingdom, 7 - 10 September 2009, pp.20
- XLIII. **From Organometallic Single Source Precursors to High Mobility Flexible Thin-Film Field-Effect Transistors with nanosized-ZnO as Active Channel**
AKSU Y., Driess M.
EUROMAT 2009 European Congress and Exhibition on Advanced Materials and Processes, Glasgow, United Kingdom, 7 - 10 September 2009, pp.21
- XLIV. **The Organometallic Precursor Clue to Zn₂SnO₄ and Sn@ZnO Based Nanomaterials for Optoelectronics**
Driess M., AKSU Y., Tsaroucha M.
EUROMAT 2009 European Congress and Exhibition on Advanced Materials and Processes, Glasgow, United Kingdom, 7 - 10 September 2009, pp.22
- XLV. **Unique Molybdenum-Zinc Oxo Clusters in Concert: Potential Precursors for a New Class of TCOs**
AKSU Y., Ma J. G., Driess M.
EUROMAT 2009 European Congress and Exhibition on Advanced Materials and Processes, Glasgow, United Kingdom, 7 - 10 September 2009, pp.23
- XLVI. **The catalytic activity of pure and doped zinc oxides from single source precursors for CH activation of light alkanes**
Arndt S., AKSU Y., Driess M., Schomaecker R.
EuropaCat IV, Catalysis for a Sustainable World, Salamanca, Spain, 30 August - 04 September 2009, pp.74
- XLVII. **Aksu N ve O donor atomlu karışık ligantlarla tek boyutlu polimerik yapıda iki çekirdekli Cd(II) ve tek çekirdekli makroyapılı Mn(II) komplekslerinin hidrotermal olarak sentezi: [Cd₂(4-4'-**

bpy)4(pa)4]n(O) and [Mn(4-4'-bpy)2(pa)(H2O)3]. (CO).(H2O).ClO4

AKSU Y., Kani i.

II. Ulusal Anorganik Kimya Kongresi, Elazığ, Turkey, 16 - 19 May 2009, pp.160

XLVIII. Electronic and Optical Properties of Lithium doped ZnO Nanocrystals

Wagner M. R., Kirste R., Rauch C., Callsen G., Gehlhoff W., Malguth E., Cobet M., Lehmann M., Polarz S., AKSU Y., et al.
Proceedings of the German Physical Society, Dresden, Germany, 22 - 27 March 2009, pp.3

XLIX. Raman Spectroscopy on Lithium Doped ZnO Nanocrystals

Kirste R., AKSU Y., Wagner M. R., Jana S., Callsen G., Driess M., Hoffmann A.

Proceedings of the German Physical Society, Dresden, Germany, 22 - 27 March 2009, pp.2

Supported Projects

AKSU Y., TUBITAK Project, Elektrostatik toz boya kaplama malzemesi atıklarının yapısının değiştirilerek termoplastiklerde dolgu malzemesi olarak kullanılması, 2014 - Continues

BAŞARAN S. C., ALBAYRAK Y., AKSU Y., AKSU S., Project Supported by Higher Education Institutions, Biyoteleometri Uygulamaları için Biyosensör Entegre Modülü Tasarımı, 2016 - 2020

AKSU Y., Project Supported by Other Official Institutions, Light to Hydrogen „Energy for the future – Photocatalytic Splitting of Water to Hydrogen, 2009 - 2014

AKSU Y., Project Supported by Other Official Institutions, Excellence Cluster-EXC 341/1 “Unifying Concepts in Catalysis (Unicat)”- Project A3: Hierarchically Organized Solid Catalysts, 2008 - 2010

AKSU Y., Other International Funding Programs, Excellence Cluster-EXC 341/1 “Unifying Concepts in Catalysis (Unicat)”- Project A1: Bridging Model Systems to Real catalysis: Oxidative Methane Coupling (OCM), 2008 - 2010

AKSU Y., Project Supported by Other Official Institutions, MadRiX- Alliance Project for Printable Polymer Electronics: Synthesis of Inorganic Semiconductor Materials from Organometallic Precursors, 2007 - 2010

AKSU Y., Project Supported by Other Official Institutions, Synthesis of Indium Tin Oxide (ITO) Nanoparticles from Organometallic Precursors, 2006 - 2007

AKSU Y., EU Supported Other Project, Chemical Modification of Nanoparticles for Applications in the Optoelectronic Industry, 2005 - 2006

AKSU Y., Project Supported by Other Official Institutions, Development of a procedure for the differential multidimensional chromatography (DMDLC) for proteomic analysis of models of neural apoptosis, 2002 - 2004

AKSU Y., Project Supported by Other Official Institutions, Synthesis, structure elucidation and use of alkaline earth metal complexes in the catalysis of carbonyl functionalized substrates, 2001 - 2003

AKSU Y., Other International Funding Programs, Use of supramolecular systems in the X-ray diagnostics: “development of new iodine-free X-ray contrast medium based on tin, 1998 - 2001

Memberships / Tasks in Scientific Organizations

AKİŞMER, Board Member, 2013 - Continues

Mühendislik Fakültesi Uzmanlar Kurulu, Board Member, 2013 - Continues

Peer Reviews in Scientific Publications

MATHCHEMPHYS, SCI Journal, February 2015

Sigma mühendislik ve Fen Bilimleri Dergisi, National Scientific Refreed Journal, February 2015

MATHCHEMPHYS, SCI Journal, January 2015

Turkish Journal of Chemistry, National Scientific Refreed Journal, January 2015

MATHCHEMPHYS, SCI Journal, November 2014

MATHCHEMPHYS, SCI Journal, September 2014

MATHCHEMPHYS, SCI Journal, June 2014

MATHCHEMPHYS, SCI Journal, May 2014

Scientific Project Refereeing

TUBITAK Project, March 2015

TUBITAK Project, January 2015

TUBITAK Project, December 2014

TUBITAK Project, November 2014

TUBITAK Project, August 2014

TUBITAK Project, July 2014

TUBITAK Project, July 2014

TUBITAK Project, June 2014

TUBITAK Project, June 2014

TUBITAK Project, June 2014

TUBITAK Project, May 2014

TUBITAK Project, April 2014

TUBITAK Project, January 2014

TUBITAK Project, November 2013

TUBITAK Project, November 2013

TUBITAK Project, November 2013

TUBITAK Project, November 2013

TUBITAK Project, November 2013

TUBITAK Project, November 2013

TUBITAK Project, July 2013

TUBITAK Project, June 2013

TUBITAK Project, June 2013

TUBITAK Project, June 2013

Metrics

Publication: 85

Citation (WoS): 703

Citation (Scopus): 788

H-Index (WoS): 16

H-Index (Scopus): 18

Congress and Symposium Activities

5th EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Attendee, İstanbul, Turkey, 2014

44th World Chemistry Congress, IUPAC, Attendee, İstanbul, Turkey, 2013

XV. International Symposium on Relations Between Homogeneous and Heterogeneous Catalysis, Attendee, Berlin, Turkey, 2011

GDCh (German Chemical Society) 15th Meeting of the Wöhler-Association, Attendee, Freiburg, Germany, 2010

3rd EuCheMS (European Association for Chemical and Molecular Sciences)-Chemistry Congress, Attendee, Nürnberg, Germany, 2010

GDCh (German Chemical Society)-Science Forum Chemistry, Attendee, Frankfurt am Main , Turkey, 2010

GDCh (German Chemical Society) Catalysis and Photochemistry for Energy Technologies, Attendee, Rostock, Germany, 2010

EUROMAT 2009 (European Congress and Exhibition on Advanced Materials and Processes), Attendee, Glasgow, United Kingdom, 2009

" Summer School "Science to Business": Nanotronics, Invited Speaker, Germany, 2006

Scholarships

DFG Doktora-Stipendium, Official Institutions of Foreign Countries, 1998 - Continues

Awards

Aksu Y., Atkesen B., Fire-Stopper- Yerli Maden Atıkları kullanılarak, Çevre Dostu, Nano Alev Önleyicilerin Üretilmesi ve Polimerik Malzemelere Uygulanması, Antalya Sanayici Ve İşadamları Derneği (Ansiad), December 2021

Aksu Y., Atkesen B., Metil Selülozun Endüstriyel Üretimi için Yeni Bir Yöntem Geliştirilmesi , T.C. Ticaret Bakanlığı, Türkiye İhracatçılar Meclisi (Tim) Ve Tübitak Destekçiliğiyle İstanbul Kimyevi Maddeler Ve Mamulleri İhracatçılar Birliği (İkmib) , November 2021