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Education Information

Doctorate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Kimya, Turkey 2003 - 2009

Postgraduate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Kimya, Turkey 2001 - 2003

Undergraduate, Hacettepe Üniversitesi, Fen Fakültesi, Kimya, Turkey 1996 - 2001

Research Areas

Chemistry, Analytical Chemistry, Bioanalytical Methods, Electromagnetic Methods, Sensors, Natural Sciences

Academic Titles / Tasks

Professor, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2021 - Continues

Associate Professor, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2019 - 2021

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A novel design thia-bilane structure-based molecular imprinted electrochemical sensor for sensitive and selective dopamine determination**
Kaya H. K. , Cinar S., Altundal G., Bayramli Y., ÜNALEROĞLU C., KURALAY F.
SENSORS AND ACTUATORS B-CHEMICAL, vol.346, 2021 (Journal Indexed in SCI)
- II. **Designing functional materials: DNA/Poly(3,4-ethylenedioxythiophene) interfaces for advanced DNA direct electrochemistry and DNA-Drug interaction detection**
KURALAY F., Dukar N., Bayramli Y.
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, vol.272, 2021 (Journal Indexed in SCI)
- III. **Nucleic Acid Integrated Technologies for Electrochemical Point-of-Care Diagnostics: A Comprehensive Review**
SÜRÜCÜ Ö., ÖZTÜRK E., KURALAY F.
ELECTROANALYSIS, 2021 (Journal Indexed in SCI)
- IV. **MoS₂/Chitosan/GOx-Gelatin modified graphite surface: Preparation, characterization and its use for glucose determination**
BAL ALTUNTAŞ D., KURALAY F.
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, vol.270, 2021 (Journal Indexed in SCI)
- V. **Gold-Nickel Nanowires as Nanomotors for Cancer Marker Biodetection and Chemotherapeutic Drug Delivery**
Karaca G. Y. , KURALAY F., Uygun E., Ozaltin K., Demirbuken S. E. , GARİPCAN B., ÖKSÜZ L., ÖKSÜZ A.

ACS APPLIED NANO MATERIALS, vol.4, no.4, pp.3377-3388, 2021 (Journal Indexed in SCI)

- VI. **Catalytic Au/PEDOT/Pt micromotors for cancer biomarker detection and potential breast cancer treatment**
Yurdabak Karaca G., KURALAY F., BİNGÖL ÖZAKPINAR Ö., Uygun E., Koc U., ULUSOY S., Bosgelmez Tinaz G., Oksuz L., Uygun Oksuz A.
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- VII. **Fabrication of self-functionalized polymeric surfaces and their application in electrochemical acetaminophen detection**
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JOURNAL OF APPLIED POLYMER SCIENCE, vol.137, no.48, 2020 (Journal Indexed in SCI)
- VIII. **Ultrathin polypyrrole films on self-assembled monolayers as an efficient ultramicroelectrode assay**
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- IX. **Current status of micro/nanomotors in drug delivery**
Tezel G., TİMUR S. S., KURALAY F., GÜRSOY R. N., ULUBAYRAM K., ÖNER L., EROĞLU H.
JOURNAL OF DRUG TARGETING, 2020 (Journal Indexed in SCI)
- X. **Electrochemical Determination of Mitomycin C and Its Interaction with Double-Stranded DNA Using a Poly(o-phenylenediamine)-Multi-Walled Carbon Nanotube Modified Pencil Graphite Electrode**
KURALAY F., Bayramli Y.
ANALYTICAL LETTERS, 2020 (Journal Indexed in SCI)
- XI. **Direct Electrochemistry and Sensitive Detection of Guanosine on Nanopolymeric Surfaces Bearing Boronic Acid Groups**
KURALAY F., Gursoy T.
CHEMISTRYSELECT, vol.5, no.29, pp.9134-9142, 2020 (Journal Indexed in SCI)
- XII. **Polypyrrole-Based Nanohybrid Electrodes: Their Preparation and Potential Use for DNA Recognition and Paclitaxel Quantification**
KURALAY F., Dukar N.
CHEMISTRYSELECT, vol.5, no.15, pp.4708-4714, 2020 (Journal Indexed in SCI)
- XIII. **Electroactive polyglycine coatings for nanobiosensing applications: Label-free DNA hybridization, DNA-Antitumor agent interaction and antitumor agent determination**
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ANALYTICA CHIMICA ACTA, vol.1072, pp.15-24, 2019 (Journal Indexed in SCI)
- XIV. **Highly sensitive and selective dopamine sensing in biological fluids with one-pot prepared graphene/poly(o-phenylenediamine) modified electrodes**
Dukar N., Tunc S., Ozturk K., Demirci S., Dumangoz M., Celebi M. S., Kuralay F.
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- XV. **Determination of hydrogen peroxide with an enzymeless amperometric sensor based on poly(vinylferrocene)-supported Ag nanoparticles**
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Turkish Journal Of Chemistry, vol.42, pp.1755-1767, 2018 (Journal Indexed in SCI Expanded)
- XVI. **Poly-L-lysine Coated Surfaces for Ultrasensitive Nucleic Acid Detection**
KURALAY F., DÜKAR N., BAYRAMLI D. Y.
ELECTROANALYSIS, vol.30, no.7, pp.1556-1565, 2018 (Journal Indexed in SCI)
- XVII. **Preparation of self-propelled Cu-Pt micromotors and their application in miRNA monitoring**
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TURKISH JOURNAL OF CHEMISTRY, vol.42, no.6, pp.1744-1755, 2018 (Journal Indexed in SCI)
- XVIII. **Synergistic tungsten oxide/organic framework hybrid nanofibers for electrochromic device application**
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- XIX. **Electrochemical bacterial detection using poly(3-aminophenylboronic acid)-based imprinted**

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- XX. **Biosensing applications of titanium dioxide coated graphene modified disposable electrodes**
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- XXI. **Polymer/carbon nanotubes coated graphite surfaces for highly sensitive nitrite detection**
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- XXII. **Ultrasound-Propelled Nanoporous Gold Wire for Efficient Drug Loading and Release**
GARCIA-GRADILLA V., SATTAYASAMITSATHIT S., SOTO F., KURALAY F., Yardimci C., WIITALA D., GALARNYK M., WANG J.
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- XXIII. **Functionalized Ultrasound-Propelled Magnetically Guided Nanomotors: Toward Practical Biomedical Applications**
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- XXIV. **Self-Propelled Carbohydrate-Sensitive Microtransporters with Built-In Boronic Acid Recognition for Isolating Sugars and Cells**
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- XXV. **Ternary Monolayer Interfaces for Ultrasensitive and Direct Bioelectronic Detection of Nucleic Acids in Complex Matrices**
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- XXVI. **Single-walled carbon nanotubes-polymer modified graphite electrodes for DNA hybridization**
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- XXVII. **Multiplexed and switchable release of distinct fluids from microneedle platforms via conducting polymer nanoactuators for potential drug delivery**
Valdes-Ramirez G., Windmiller J. R. , Claussen J. C. , Martinez A. G. , Kuralay F., Zhou M., Zhou N., Polsky R., Miller P. R. , Narayan R., et al.
SENSORS AND ACTUATORS B-CHEMICAL, vol.161, no.1, pp.1018-1024, 2012 (Journal Indexed in SCI)
- XXVIII. **A novel polypyrrole-phenylboronic acid based electrochemical saccharide sensor**
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- XXIX. **Carbon nanotube-chitosan modified disposable pencil graphite electrode for Vitamin B-12 analysis**
KURALAY F., VURAL T., BAYRAM C., DENKBAŞ E. B. , ABACI S.
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- XXX. **Interaction of Mitomycin C with DNA Immobilized onto Single-walled Carbon Nanotube/Polymer Modified Pencil Graphite Electrode**
Canavar E., KURALAY F., ERDEM GÜRSAN K. A.
ELECTROANALYSIS, vol.23, no.10, pp.2343-2349, 2011 (Journal Indexed in SCI)
- XXXI. **Functionalized Micromachines for Selective and Rapid Isolation of Nucleic Acid Targets from Complex Samples**
Kagan D., Campuzano S., Balasubramanian S., Kuralay F., Flechsig G., Wang J.
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- XXXII. **The Recent Electrochemical Biosensor Technologies for Monitoring of Nucleic Acid Hybridization**
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CURRENT ANALYTICAL CHEMISTRY, vol.7, no.1, pp.63-70, 2011 (Journal Indexed in SCI)

- XXXIII. **Characterization of poly(vinylferrocenium) coated surfaces and their applications in DNA sensor technology**
KURALAY F., ERDEM GÜRSAN K. A. , ABACI S., Ozyoruk H., Yildiz A.
JOURNAL OF APPLIED ELECTROCHEMISTRY, vol.40, no.11, pp.2039-2050, 2010 (Journal Indexed in SCI)
- XXXIV. **Preparation and physical/electrochemical characterization of carbon nanotube-chitosan modified pencil graphite electrode**
VURAL T., KURALAY F., BAYRAM C., ABACI S., DENKBAŞ E. B.
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- XXXV. **Tin oxide nanoparticles-polymer modified single-use sensors for electrochemical monitoring of label-free DNA hybridization**
Muti M., KURALAY F., ERDEM GÜRSAN K. A. , ABACI S., Yumak T., SINAĞ A.
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- XXXVII. **Poly(vinylferrocenium) coated disposable pencil graphite electrode for DNA hybridization**
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- XXXVIII. **Indicator-based and indicator-free magnetic assays connected with disposable electrochemical nucleic acid sensor system**
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TALANTA, vol.78, no.1, pp.187-192, 2009 (Journal Indexed in SCI)
- XXXIX. **Electrochemical Biosensing of DNA Immobilized Poly(Vinylferrocenium) Modified Electrode**
KURALAY F., ERDEM GÜRSAN K. A. , Abacı S., Ozyoruk H., Yildiz A.
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- XL. **Constant current chronopotentiometry and voltammetry of native and denatured serum albumin at mercury and carbon electrodes**
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ELECTROANALYSIS, vol.20, no.13, pp.1406-1413, 2008 (Journal Indexed in SCI)
- XLI. **Inhibitive determination of Hg²⁺ ion by an amperometric urea biosensor using poly(vinylferrocenium) film**
Kuralay F., Ozyoruk H., Yildiz A.
ENZYME AND MICROBIAL TECHNOLOGY, vol.40, no.5, pp.1156-1159, 2007 (Journal Indexed in SCI)

Citations

Total Citations (WOS):986

h-index (WOS):17

Awards

Kuralay F., TÜBİTAK Teşvik Ödülü-2017, Tübitak, December 2018