

Mustafa Kemal Sezgin

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

3,961
citations

147726

31
h-index

133188

59
g-index

111
all docs

111
docs citations

111
times ranked

4297
citing authors

#	ARTICLE	IF	CITATIONS
1	Biosensor approaches on the diagnosis of neurodegenerative diseases: Sensing the past to the future. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 209, 114479.	1.4	13
2	Biosensing strategies for diagnosis of prostate specific antigen. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 209, 114535.	1.4	21
3	A direct and simple immobilization route for immunosensors by CNBr activation for covalent attachment of anti-leptin: obesity diagnosis point of view. <i>3 Biotech</i> , 2022, 12, 33.	1.1	4
4	Label-free and reagent-less electrochemical detection of nucleocapsid protein of SARS-CoV-2: an ultrasensitive and disposable biosensor. <i>New Journal of Chemistry</i> , 2022, 46, 9172-9183.	1.4	8
5	Determination of calreticulin using Fe ₃ O ₄ @AuNPs core-shell functionalized with PT(COOH) ₂ polymer modified electrode: A new platform for the impedimetric biosensing of cancer biomarkers. <i>Sensors and Actuators B: Chemical</i> , 2022, 367, 132099.	4.0	14
6	Fabrication of electrochemical immunosensor based on acid-substituted poly(pyrrole) polymer modified disposable ITO electrode for sensitive detection of CCR4 cancer biomarker in human serum. <i>Talanta</i> , 2021, 222, 121487.	2.9	29
7	Advances in immunosensor technology. <i>Advances in Clinical Chemistry</i> , 2021, 102, 1-62.	1.8	31
8	A novel electrochemical immunosensor based on acetylene black/epoxy-substituted-polypyrrole polymer composite for the highly sensitive and selective detection of interleukin 6. <i>Talanta</i> , 2021, 222, 121596.	2.9	48
9	An impedimetric biosensor system based on disposable graphite paper electrodes: Detection of ST2 as a potential biomarker for cardiovascular disease in human serum. <i>Analytica Chimica Acta</i> , 2021, 1144, 43-52.	2.6	17
10	Ultrasensitive detection of interleukin 1 \pm using 3-phosphonopropionic acid modified FTO surface as an effective platform for disposable biosensor fabrication. <i>Bioelectrochemistry</i> , 2021, 138, 107698.	2.4	7
11	A novel and disposable GP- based impedimetric biosensor using electropolymerization process with PGA for highly sensitive determination of leptin: Early diagnosis of childhood obesity. <i>Talanta</i> , 2021, 225, 121985.	2.9	14
12	Electrochemical Immunosensor for Detection of CCR4 Cancer Biomarker in Human Serum: An Alternative Strategy for Modification of Disposable ITO Electrode. <i>Macromolecular Bioscience</i> , 2021, 21, e2000267.	2.1	4
13	A high sensitive and cost-effective disposable biosensor for adiponectin determination in real human serum samples. <i>Sensors and Actuators B: Chemical</i> , 2021, 328, 129051.	4.0	11
14	A Label-free Electrochemical Immunosensor for Highly Sensitive Detection of TNF 1 \pm , Based on Star Polymer-modified disposable ITO Electrode. <i>Current Pharmaceutical Analysis</i> , 2021, 17, 450-459.	0.3	3
15	Immunosensors Based on the Technology of Molecular Imprinted Polymers. , 2021, , 117-161.		0
16	Detection of Kallikrein-Related Peptidase 4 with a Label-free Electrochemical Impedance Biosensor Based on a Zinc(II) Phthalocyanine Tetracarboxylic Acid-Functionalized Disposable Indium Tin Oxide Electrode. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 1192-1201.	2.6	6
17	Fabrication of Electrochemical Immunosensor for Detection of Interleukin 8 Biomarker via Layer-by-Layer Self-Assembly Process on Cost-Effective Fluorine Tin Oxide Electrode. <i>Electroanalysis</i> , 2021, 33, 1596-1605.	1.5	5
18	A nano-composite based regenerative neuro biosensor sensitive to Parkinsonism-associated protein DJ-1/Park7 in cerebrospinal fluid and saliva. <i>Bioelectrochemistry</i> , 2021, 138, 107734.	2.4	13

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19	New Impedimetric Sandwich Immunosensor for Ultrasensitive and Highly Specific Detection of Spike Receptor Binding Domain Protein of SARS-CoV-2. ACS Biomaterials Science and Engineering, 2021, 7, 3874-3885.	2.6	22
20	Ultrasensitive and Selective Impedimetric Determination of Prostate Specific Membrane Antigen Based on Diacetylene Succinimide Functionalized Polythiophene Covered Cost-effective Indium Tin Oxide. Macromolecular Bioscience, 2021, 21, e2100173.	2.1	5
21	Highly Sensitive and Single-Use Biosensing System Based on a GP Electrode for Analysis of Adiponectin, an Obesity Biomarker. ACS Biomaterials Science and Engineering, 2021, 7, 3658-3668.	2.6	4
22	Highly selective and sensitive sandwich immunosensor platform modified with MUA-capped GNPs for detection of spike Receptor Binding Domain protein: A precious marker of COVID 19 infection. Sensors and Actuators B: Chemical, 2021, 345, 130355.	4.0	36
23	Biosensors and the evaluation of food contaminant biosensors in terms of their performance criteria. International Journal of Environmental Analytical Chemistry, 2020, 100, 602-622.	1.8	8
24	Ultra-sensitive detection of parathyroid hormone in human serum: a cheap and practical biosensing platform modified by an epoxy ended-silane agent. International Journal of Environmental Analytical Chemistry, 2020, 100, 393-407.	1.8	4
25	Selective and ultrasensitive electrochemical immunosensing of NSE cancer biomarker in human serum using epoxy-substituted poly(pyrrole) polymer modified disposable ITO electrode. Sensors and Actuators B: Chemical, 2020, 306, 127613.	4.0	61
26	A High Sensitive, Reproducible and Disposable Immunosensor for Analysis of SOX2. Electroanalysis, 2020, 32, 1065-1074.	1.5	4
27	A label-free immunosensor for sensitive detection of RACK 1 cancer biomarker based on conjugated polymer modified ITO electrode. Journal of Pharmaceutical and Biomedical Analysis, 2020, 190, 113517.	1.4	6
28	Construction of succinimide group substituted polythiophene polymer functionalized sensing platform for ultrasensitive detection of KLK 4 cancer biomarker. Sensors and Actuators B: Chemical, 2020, 325, 128788.	4.0	18
29	A New Approach to Synthesis of Highly Dispersed Gold Nanoparticles via Glucose Oxidase-immobilized Hydrogel and Usage in The Reduction of 4-Nitrophenol. ChemistrySelect, 2020, 5, 9143-9152.	0.7	11
30	Introduction to commercial biosensors. , 2020, , 1-28.		7
31	Paper-based devices. , 2020, , 107-166.		0
32	Bioprocess monitoring by biosensor-based technologies. , 2020, , 259-285.		1
33	The development of an ultra-sensitive electrochemical immunosensor using a PPy-NHS functionalized disposable ITO sheet for the detection of interleukin 6 in real human serums. New Journal of Chemistry, 2020, 44, 14228-14238.	1.4	27
34	Development of a biosensor platform based on ITO sheets modified with 3-glycidioxypropyltrimethoxysilane for early detection of TRAP1. Turkish Journal of Chemistry, 2020, 44, 461-471.	0.5	2
35	Analysis of Tau-441 protein in clinical samples using rGO/AuNP nanocomposite-supported disposable impedimetric neuro-biosensing platform: Towards Alzheimer's disease detection. Talanta, 2020, 219, 121257.	2.9	27
36	Preface for the special issue of 4th International congress on biosensors. International Journal of Environmental Analytical Chemistry, 2020, 100, 361-362.	1.8	0

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37	A novel biosensing system based on ITO-single use electrode for highly sensitive analysis of VEGF. <i>International Journal of Environmental Analytical Chemistry</i> , 2020, 100, 432-450.	1.8	11
38	A novel ultrasensitive immunosensor based on disposable graphite paper electrodes for troponin T detection in cardiovascular disease. <i>Talanta</i> , 2020, 213, 120779.	2.9	28
39	A novel electrochemical immunosensor based on disposable ITO-PET electrodes for sensitive detection of PAK 2 antigen. <i>Journal of Electroanalytical Chemistry</i> , 2019, 848, 113304.	1.9	19
40	Cerebrospinal fluid levels of alpha-synuclein measured using a poly-glutamic acid-modified gold nanoparticle-doped disposable neuro-biosensor system. <i>Analyst</i> , The, 2019, 144, 611-621.	1.7	58
41	A Highly Selective Poly(thiophene)-graft-Poly(methacrylamide) Polymer Modified ITO Electrode for Neuron Specific Enolase Detection in Human Serum. <i>Macromolecular Bioscience</i> , 2019, 19, e1900109.	2.1	29
42	A comparison between LP(GMA) and CLP(GMA) polymer composites as an immobilization matrix for biosensing applications: A model immunosensor for IL 1 β . <i>Analytica Chimica Acta</i> , 2019, 1077, 129-139.	2.6	11
43	Advances in electrochemical immunosensors. <i>Advances in Clinical Chemistry</i> , 2019, 92, 1-57.	1.8	31
44	An epoxysilane modified indium tin oxide electrode for the determination of PAK 2: Application in human serum samples. <i>Analytica Chimica Acta</i> , 2019, 1062, 68-77.	2.6	13
45	Ultrasensitive determination of cadherin-like protein 22 with a label-free electrochemical immunosensor using brush type poly(thiophene-g-glycidylmethacrylate) modified disposable ITO electrode. <i>Talanta</i> , 2019, 200, 387-397.	2.9	21
46	Highly sensitive and cost-effective ITO-based immunosensor system modified by 11-CUTMS: Analysis of SOX2 protein in real human serum. <i>International Journal of Biological Macromolecules</i> , 2019, 130, 245-252.	3.6	14
47	An ultrasensitive electrochemical immunosensor platform based on disposable ITO electrode modified by 3-CPTMS for early detection of parathyroid hormone. <i>Turkish Journal of Chemistry</i> , 2019, 43, 1697-1710.	0.5	3
48	Electrochemical immunosensor for CDH22 biomarker based on benzaldehyde substituted poly(phosphazene) modified disposable ITO electrode: A new fabrication strategy for biosensors. <i>Biosensors and Bioelectronics</i> , 2019, 126, 230-239.	5.3	47
49	Biosensors in Drug Discovery and Drug Analysis. <i>Current Analytical Chemistry</i> , 2019, 15, 467-484.	0.6	17
50	A label-free electrochemical biosensor for direct detection of RACK 1 by using disposable, low-cost and reproducible ITO based electrode. <i>Analytica Chimica Acta</i> , 2018, 1024, 65-72.	2.6	21
51	A disposable immunosensor using ITO based electrode modified by a star-shaped polymer for analysis of tumor suppressor protein p53 in human serum. <i>Biosensors and Bioelectronics</i> , 2018, 107, 1-9.	5.3	62
52	Highly sensitive electrochemical immunosensor based on polythiophene polymer with densely populated carboxyl groups as immobilization matrix for detection of interleukin 1 β in human serum and saliva. <i>Sensors and Actuators B: Chemical</i> , 2018, 270, 18-27.	4.0	53
53	Determination of C-reactive protein by PAMAM decorated ITO based disposable biosensing system: A new immunosensor design from an old molecule. <i>Talanta</i> , 2018, 186, 162-168.	2.9	19
54	A novel silanization agent based single used biosensing system: Detection of C-reactive protein as a potential Alzheimer's disease blood biomarker. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 154, 227-235.	1.4	23

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55	Electrochemical immunosensor based on chitosan/conductive carbon black composite modified disposable ITO electrode: An analytical platform for p53 detection. <i>Biosensors and Bioelectronics</i> , 2018, 121, 80-89.	5.3	76
56	A disposable and ultrasensitive ITO based biosensor modified by 6-phosphonohexanoic acid for electrochemical sensing of IL-1 β in human serum and saliva. <i>Analytica Chimica Acta</i> , 2018, 1039, 41-50.	2.6	32
57	A highly selective electrochemical immunosensor based on conductive carbon black and star PGMA polymer composite material for IL-8 biomarker detection in human serum and saliva. <i>Biosensors and Bioelectronics</i> , 2018, 117, 720-728.	5.3	82
58	An impedimetric immunosensor for highly sensitive detection of IL-8 in human serum and saliva samples: A new surface modification method by 6-phosphonohexanoic acid for biosensing applications. <i>Analytical Biochemistry</i> , 2018, 554, 44-52.	1.1	39
59	A sensitive and disposable indium tin oxide based electrochemical immunosensor for label-free detection of MAGE-1. <i>Talanta</i> , 2017, 169, 163-169.	2.9	19
60	A sensitive and disposable electrochemical immunosensor for detection of SOX2, a biomarker of cancer. <i>Talanta</i> , 2017, 172, 162-170.	2.9	47
61	A highly sensitive immunosensor based on ITO thin films covered by a new semi-conductive conjugated polymer for the determination of TNF α in human saliva and serum samples. <i>Biosensors and Bioelectronics</i> , 2017, 97, 169-176.	5.3	95
62	A novel label free immunosensor based on single-use ITO-PET electrodes for detection MAGE1 protein. <i>Journal of Electroanalytical Chemistry</i> , 2017, 792, 31-38.	1.9	14
63	Quantification of Trypsin Activity by a New Biosensing System Based on the Enzymatic Degradation and the Destructive Nature of Trypsin. <i>International Journal of Peptide Research and Therapeutics</i> , 2017, 23, 313-322.	0.9	7
64	Indium tin oxide (ITO): A promising material in biosensing technology. <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 97, 309-315.	5.8	121
65	A novel electrochemical immunosensor based on ITO modified by carboxyl-ended silane agent for ultrasensitive detection of MAGE-1 in human serum. <i>Analytical Biochemistry</i> , 2017, 537, 84-92.	1.1	18
66	Biosensor technologies for analyses of food contaminants. , 2017, , 289-337.		11
67	A comparative study of short chain and long chain mercapto acids used in biosensor fabrication: A VEGF-R1-based immunosensor as a model system. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2016, 44, 462-470.	1.9	18
68	A review on impedimetric biosensors. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2016, 44, 248-262.	1.9	202
69	Quantitative Analysis of a Promising Cancer Biomarker, Calretinin, by a Biosensing System Based on Simple and Effective Immobilization Process. <i>Electroanalysis</i> , 2016, 28, 334-342.	1.5	3
70	Graphene oxide based electrochemical label free immunosensor for rapid and highly sensitive determination of tumor marker HSP70. <i>Talanta</i> , 2016, 160, 367-374.	2.9	28
71	A novel immunosensor based on fullerene C60 for electrochemical analysis of heat shock protein 70. <i>Journal of Electroanalytical Chemistry</i> , 2016, 783, 201-207.	1.9	28
72	Lateral flow assays: Principles, designs and labels. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 82, 286-306.	5.8	428

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73	Applications of graphene in electrochemical sensing and biosensing. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 76, 1-14.	5.8	189
74	Poly(amidoamine) (PAMAM): An emerging material for electrochemical bio(sensing) applications. <i>Talanta</i> , 2016, 148, 427-438.	2.9	98
75	AuNPs modified, disposable, ITO based biosensor: Early diagnosis of heat shock protein 70. <i>Biosensors and Bioelectronics</i> , 2016, 84, 22-29.	5.3	59
76	Detection of parathyroid hormone using an electrochemical impedance biosensor based on PAMAM dendrimers. <i>Biotechnology Progress</i> , 2015, 31, 815-822.	1.3	27
77	Electrochemical biosensors for hormone analyses. <i>Biosensors and Bioelectronics</i> , 2015, 68, 62-71.	5.3	126
78	A new methodology for the determination of enzyme activity based on carbon nanotubes and glucose oxidase. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 115, 254-259.	1.4	3
79	Ultrasensitive Impedimetric Biosensor Fabricated by a New Immobilisation Technique for Parathyroid Hormone. <i>Applied Biochemistry and Biotechnology</i> , 2015, 176, 1251-1262.	1.4	14
80	Applications of commercial biosensors in clinical, food, environmental, and biothreat/biowarfare analyses. <i>Analytical Biochemistry</i> , 2015, 478, 107-120.	1.1	326
81	A new immobilization procedure for development of an electrochemical immunosensor for parathyroid hormone detection based on gold electrodes modified with 6-mercaptohexanol and silane. <i>Talanta</i> , 2015, 144, 210-218.	2.9	29
82	Applications of electrochemical immunosensors for early clinical diagnostics. <i>Talanta</i> , 2015, 132, 162-174.	2.9	168
83	Fabrication of a highly sensitive disposable immunosensor based on indium tin oxide substrates for cancer biomarker detection. <i>Analytical Biochemistry</i> , 2014, 446, 9-18.	1.1	40
84	Ultrasensitive electrochemical detection of cancer associated biomarker HER3 based on anti-HER3 biosensor. <i>Talanta</i> , 2014, 120, 355-361.	2.9	43
85	A Novel Biosensing System Using Biological Receptor for Analysis of Vascular Endothelial Growth Factor. <i>International Journal of Peptide Research and Therapeutics</i> , 2014, 20, 221-230.	0.9	6
86	An ITO Based Disposable Biosensor for Ultrasensitive Analysis of Retinol Binding Protein. <i>Electroanalysis</i> , 2014, 26, 328-339.	1.5	15
87	Introducing a new method for evaluation of the interaction between an antigen and an antibody: Single frequency impedance analysis for biosensing systems. <i>Talanta</i> , 2014, 125, 7-13.	2.9	43
88	A novel impedimetric disposable immunosensor for rapid detection of a potential cancer biomarker. <i>International Journal of Biological Macromolecules</i> , 2014, 66, 273-280.	3.6	43
89	Electrochemical biosensor based on self-assembled monolayers modified with gold nanoparticles for detection of HER-3. <i>Analytica Chimica Acta</i> , 2014, 814, 31-38.	2.6	51
90	Sulfite Determination by an Inhibitor Biosensor-based Mushroom (<i>Agaricus Bisporus</i>) Tissue Homogenate. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2012, 40, 38-43.	0.9	3

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91	An impedimetric vascular endothelial growth factor biosensor-based PAMAM/cysteamine-modified gold electrode for monitoring of tumor growth. <i>Analytical Biochemistry</i> , 2012, 423, 277-285.	1.1	26
92	A Biosensor for the Determination of β -galactosidase Activity: A Different Viewpoint on Biosensors. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2011, 39, 281-288.	0.9	0
93	β -galactosidase Determination by an Electrochemical Biosensor Mediated with Ferrocene. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2011, 39, 267-273.	0.9	0
94	Glutathione (GSH) Determination by a Very Simple Electrochemical Method. <i>International Journal of Peptide Research and Therapeutics</i> , 2011, 17, 87-92.	0.9	10
95	Development of an impedimetric aflatoxin M1 biosensor based on a DNA probe and gold nanoparticles. <i>Biosensors and Bioelectronics</i> , 2011, 26, 3806-3811.	5.3	111
96	A new impedimetric biosensor utilizing VEGF receptor-1 (Flt-1): Early diagnosis of vascular endothelial growth factor in breast cancer. <i>Biosensors and Bioelectronics</i> , 2011, 26, 4032-4039.	5.3	51
97	Development of a Biosensor for Controlling of Thiourea in Fruit Juices. <i>Food and Bioprocess Technology</i> , 2010, 3, 128-134.	2.6	9
98	A Biosensor Based on Zucchini (<i>Cucurbita Pepo</i> L.) Homogenate as a Biorecognition Layer for Ascorbic Acid Determination. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2010, 38, 215-221.	0.9	7
99	A BIOSENSOR UTILIZING QUINCE (<i>CYDONIA VULGARIS</i>) TISSUE HOMOGENATE FOR DOPAMINE DETERMINATION IN PHARMACEUTICAL PREPARATIONS. <i>Preparative Biochemistry and Biotechnology</i> , 2010, 40, 129-138.	1.0	0
100	Construction and Comparison of <i>Trametes versicolor</i> Laccase Biosensors Capable of Detecting Xenobiotics. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2010, 38, 192-199.	0.9	5
101	ELECTROCHEMICAL CYSTEINE DETERMINATION IN SERUM SAMPLES BY Hg THIN FILM SENSOR. <i>Preparative Biochemistry and Biotechnology</i> , 2010, 41, 30-39.	1.0	5
102	β -Galactosidase monitoring by a biosensor based on Clark electrode: Its optimization, characterization and application. <i>Biosensors and Bioelectronics</i> , 2008, 23, 1799-1804.	5.3	12
103	H ₂ O ₂ Determination by a Biosensor Based on Hemoglobin. <i>Preparative Biochemistry and Biotechnology</i> , 2008, 39, 1-10.	1.0	7
104	Glucose Monitoring by a Biosensor Based on Mercury Thin Film Electrodes. <i>Analytical Letters</i> , 2008, 41, 1074-1082.	1.0	0
105	Glucose oxidase- β -galactosidase hybrid biosensor based on glassy carbon electrode modified with mercury for lactose determination. <i>Analytica Chimica Acta</i> , 2005, 551, 51-56.	2.6	23
106	A biosensor based on catalase for determination of highly toxic chemical azide in fruit juices. <i>Biosensors and Bioelectronics</i> , 2005, 21, 684-688.	5.3	34
107	Direct determination of sulfite in food samples by a biosensor based on plant tissue homogenate. <i>Talanta</i> , 2005, 65, 998-1002.	2.9	48
108	An amperometric inhibitor biosensor for the determination of reduced glutathione (GSH) without any derivatization in some plants. <i>Biosensors and Bioelectronics</i> , 2004, 19, 835-841.	5.3	29

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109	Evaluation of a new biosensor-based mushroom (<i>Agaricus bisporus</i>) tissue homogenate: investigation of certain phenolic compounds and some inhibitor effects. <i>Biosensors and Bioelectronics</i> , 2004, 20, 592-597.	5.3	34
110	A novel amperometric biosensor based on spinach (<i>Spinacia oleracea</i>) tissue homogenate for urinary oxalate determination. <i>Talanta</i> , 2003, 59, 545-551.	2.9	28