

Елена Евгеньевна Карякина



(15.05.1953 – 20.12.2020)

После продолжительной болезни ушла из жизни Карякина Елена Евгеньевна, кандидат биологических наук ("Растворимая гидрогеназа водородной бактерии *Alcaligenes eutrophus Z*", 1980), старший научный сотрудник кафедры химической энзимологии химического факультета МГУ имени М.В. Ломоносова.

Елена Евгеньевна работала на факультете с 1979 года, в последние 30 лет занималась электрохимическими биосенсорами. Она посвятила свою жизнь науке, внесла неоценимый вклад в воспитание и становление не одного поколения молодых ученых. Память об этом светлом жизнерадостном человеке навсегда останется в сердцах коллег.

Список основных научных публикаций Е.Е. Карякиной

Книги

1. Будников Г.К., Веселова И.А., Дзантиев Б.Б., Евтюгин Г.А., Еременко А.В., Еремин С.А., Ермолаева Т.Н., Жердев А.В., Калмыкова Е.Н., Карякин А.А., Карякина Е.Е., Курочкин И.Н., Медянцева Э.П., Мугинова С.В., Нартова Ю.В., Нестеренко И.С., Решетилов А.Н., Сахаров И.Ю., Шеховцова Т.Н.

Проблемы аналитической химии, т.12, Биохимические методы анализа, 2010, издательство Наука (М.), 392 с.

2. Колякина Е.Е., Колякин А.А.

Электрохимические биосенсоры на основе проводящих полимеров и электроактивных поликристаллов Глава в книге "Проблемы аналитической химии", 2010, издательство Наука (М.), 45 с.

Статьи в сборниках

3. Karpova E.V., Shcherbacheva E.V., Karyakina E.E., Karyakin A.A.

Non-invasive monitoring of diabetes and hypoxia based on continuous sweat analysis by flow-through biosensors, 2019, в сборнике Proceedings of the 15th International Students Conference "Modern Analytical Chemistry", место издания Faculty of Science, Charles University Prague, с. 190-196

Статьи в журналах

4. GRACHEVA IM, LUSHCHIK TA, TYRSIN YA, YAKOVLEV G., Pinchukova EE

PURIFICATION AND PROPERTIES OF GLUCOAMYLASE FROM ENDOMYCOPSIS SP-20-9, 1977, Biochemistry (Moscow), том 42, № 9, с. 1258-1264

5. Karyakina (Pinchukova) EE, Varfolomeev S.D., Berezin I.V.

Oxygen as stabilizer of hydrogenase of hydrogen bacteria Alcaligenes-eutrophus Z-1, 1977, Doklady Akademii nauk SSSR, том 236, № 5, с. 1253-1255

6. Pinchukova EE, Varfolomeev SD, Kondratieva EN

ISOLATION, PURIFICATION AND INVESTIGATION OF STABILITY OF SOLUBLE HYDROGENASE FROM ALCALIGENES-EUTROPHUS Z-1, 1979, Biochemistry (Moscow), том 44, № 4, с. 477-484

7. Pinchukova E.E., Varfolomeev S.D.

Reversible oxidation - reduction of NAD by hydrogen catalyzed by soluble hydrogenase from Alcaligenes-Eutrophus Z-1, 1980, Biochemistry (Moscow), том 45, № 8, с. 1061-1066

8. BEREZIN VI, PINCHUKOVA EE, VARFOLOMEEV SD

THERMOSTABLE HYDROGENASE ACTIVITY OF THERMOPHILS FROM HYDROTHERMAL SPRINGS OF KAMCHATKA, 1981, Doklady Akademii nauk SSSR, том 259, № 1, с. 223-225

9. VARFOLOMEEV S.D., MEDMAN D.J., PINCHUKOVA E.E.

WATER BIOPHOTOLYSIS IN METABOLITE-CONJUGATED CULTURE OF MICROORGANISMS, 1985, Doklady Akademii nauk SSSR, том 284, № 5, с. 1275-1277

10. Орозгожеева В.Б., Колякина Е.Е., Михеева Л.Е., Стругалина Т.И., Варфоломеев С.Д. Кинетические закономерности роста и фотовыделение аммиака мутантными штаммами *Anabaena variabilis*, 1990, Микробиология, Наука (М.), том 59, № 2, с. 264-271

11. OROZGOZHOEVA VB, KARYAKINA EE, VARFOLOMEEV SD

- REGULATION OF NITROGENASE AND GLUTAMINE-SYNTETASE IN AMMONIA-PRODUCING MUTANTS OF THE CYANOBACTERIUM ANABAENA-VARIABILIS, 1990, Microbiology, том 59, № 5, с. 518-52
12. OROZGOZHOEVA VB, KARYAKINA EE, MIKHEEVA LE, STRUCHALINA TI, VARFOLOMEEV SD
KINETIC PRINCIPLES OF THE GROWTH AND PHOTOLIBERATION OF AMMONIA BY MUTANT STRAINS OF ANABAENA VARIABILIS, 1990, Microbiology, том 59, № 2, с. 171-177
13. KARYAKIN AA, STRAKHOVA AK, KARYAKINA EE, VARFOLOMEYEV SD, YATSIMIRSKY AK
THE ELECTROCHEMICAL POLYMERIZATION OF METHYLENE-BLUE AND BIOELECTROCHEMICAL ACTIVITY OF THE RESULTING FILM, 1993, Bioelectrochemistry and bioenergetics, том 32, № 1, с. 35-43
14. KARYAKIN AA, STRAKHOVA AK, KARYAKINA EE, VARFOLOMEYEV SD, YATSIMIRSKY AK
THE ELECTROCHEMICAL POLYMERIZATION OF METHYLENE-BLUE AND BIOELECTROCHEMICAL ACTIVITY OF THE RESULTING FILM, 1993, Synthetic Metals, том 60, № 3, с. 289-292
15. KARYAKIN AA, KARYAKINA EE, SCHUHMANN W., SCHMIDT HL, VARFOLOMEYEV SD
NEW AMPEROMETRIC DEHYDROGENASE ELECTRODES BASED ON ELECTROCATALYTIC NADH-OXIDATION AT POLY(METHYLENE BLUE)-MODIFIED ELECTRODES, 1994, Electroanalysis, том 6, № 10, с. 821-829
16. KARYAKINA EE, NEFTYAKOVA LV, KARYAKIN AA
A NOVEL POTENTIOMETRIC GLUCOSE BIOSENSOR BASED ON POLYANILINE SEMICONDUCTOR-FILMS, 1994, Analytical Letters, том 27, № 15, с. 2871-2882
17. KARYAKIN AA, GITELMACHER OV, KARYAKINA EE
A HIGH-SENSITIVE GLUCOSE AMPEROMETRIC BIOSENSOR BASED ON PRUSSIAN-BLUE MODIFIED ELECTRODES, 1994, Analytical Letters, том 27, № 15, с. 2861-2869
18. KARYAKIN AA, GITELMACHER OV, KARYAKINA EE
PRUSSIAN BLUE BASED FIRST-GENERATION BIOSENSOR - A SENSITIVE AMPEROMETRIC ELECTRODE FOR GLUCOSE, 1995, Analytical Chemistry, том 67, № 14, с. 2419-2423
19. Karyakin A.A., Bobrova O.A., Karyakina E.E.
Electroreduction of NAD(+) to enzymatically active NADH at poly(neutral red) modified electrodes, 1995, Journal of Electroanalytical Chemistry, том 399, № 1-2, с. 179-184
20. Карякин А.А., Боброва О.А., Карякина Е.Е.
Потенциометрический биосенсор на основе полупроводниковых пленок полианилина, 1996, Электрохимия, том 32, с. 1016-1019
21. Karyakin A.A., Bobrova O.A., Karyakina E.E.
The potentiometric biosensor based on polyaniline semiconductor films, 1996, Russian Journal of Electrochemistry, том 32, № 8, с. 939-942
22. Karyakin A.A., Karyakina E.E., Gorton L.
Prussian-Blue-based amperometric biosensors in flow-injection analysis, 1996, Talanta, том 43, № 9, с. 1597-1606
23. Karyakin A.A., Bobrova O.A., Luckachova L.V., Karyakina E.E.
Potentiometric biosensors based on polyaniline semiconductor films, 1996, Sensors and Actuators, B: Chemical, том 33, № 1-3, с. 34-38

24. Karyakin A.A., Karyakina E.E., Gorton L., Bobrova O.A., Lukachova L.V., Gladilin A.K., Levashov A.V.
Improvement of electrochemical biosensors using enzyme immobilization from water-organic mixtures with a high content of organic solvent, 1996, Analytical Chemistry, том 68, № 24, с. 4335-4341
25. Карякин А.А., Карякина Е.Е., Варфоломеев С.Д.
Электрохимические биосенсоры на основе полупроводниковых полимеров и неорганических поликристаллов (обзор), 1997, Сенсорные системы, том 11, с. 444-464
26. Lukachova L.V., Karyakin A.A., Karyakina E.E., Gorton L.
The improvement of polyaniline glucose biosensor stability using enzyme immobilization from water-organic mixtures with a high content of organic solvent, 1997, Sensors and Actuators, B: Chemical, том 44, № 1-3, с. 356-360
27. Karyakin A.A., Karyakina E.E.
Polyaniline based potentiometric biosensors, 1997, Abstracts of Papers of the American Chemical Society, том 213, с. 314-PMSE
28. Карякин А.А., Карякина Е.Е.
Амперометрические биосенсоры на основе поликристаллов берлинской лазури (обзор), 1998, Журнал ВХО им. Д.И. Менделеева, том 42, № 1-2, с. 86-95
29. Karyakin A.A., Karyakina E.E., Gorton L.
The electrocatalytic activity of Prussian blue in hydrogen peroxide reduction studied using a wall-jet electrode with continuous flow, 1998, Journal of Electroanalytical Chemistry, том 456, № 1-2, с. 97-104
30. Lukachova L.V., Karyakin A.A., Ivanova Y.N., Karyakina E.E., Varfolomeyev S.D.
Non-aqueous enzymology approach for improvement of reagentless mediator-based glucose biosensor, 1998, The Analyst, том 123, № 10, с. 1981-1985
31. Karyakin A.A., Lukachova L.V., Karyakina E.E., Orlov A.V., Karpachova G.P.
The improved potentiometric pH response of electrodes modified with processible polyaniline. Application to glucose biosensor, 1999, Analytical Communications, том 36, № 4, с. 153-156
32. Karyakin A.A., Karyakina E.E.
Prussian Blue-based 'artificial peroxidase' as a transducer for hydrogen peroxide detection. Application to biosensors, 1999, Sensors and Actuators, B: Chemical, том 57, № 1-3, с. 268-273
33. Karyakin A.A., Vuki M., Lukachova L.V., Karyakina E.E., Orlov A.V., Karpachova G.P., Wang J.
Processible polyaniline as an advanced potentiometric pH transducer. Application to biosensors, 1999, Analytical Chemistry, том 71, № 13, с. 2534-2540
34. Karyakin A.A., Karyakina E.E., Gorton L.
On the mechanism of H₂O₂ reduction at Prussian Blue modified electrodes, 1999, Electrochemistry Communications, том 1, № 2, с. 78-82
35. Karyakin A.A., Karyakina E.E., Schuhmann W., Schmidt H.L.
Electropolymerized azines: Part II. In a search of the best electrocatalyst of NADH oxidation, 1999, Electroanalysis, том 11, № 8, с. 553-557
36. Karyakin A.A., Karyakina E.E., Schmidt H.L.

- Electropolymerized azines: A new group of electroactive polymers, 1999, *Electroanalysis*,), том 11, № 3, c. 149-155
37. Karyakin A.A., Karyakina E.E., Gorton L.
Amperometric biosensor for glutamate using Prussian Blue-based "artificial peroxidase" as a transducer for hydrogen peroxide, 2000, *Analytical Chemistry*, том 72, № 7, c. 1720-1723
38. Karyakin A.A., Karyakina E.E.
Electroanalytical applications of Prussian Blue and its analogs, 2001, *Russian Chemical Bulletin*, том 50, № 10, c. 1811-1817
39. Ivanov A.N., Lukachova L., Evtugyn G.A., Karyakina E.E., Kiseleva S.G., Budnikov H.C., Orlov A.V., Karpacheva G.P., Karyakin A.A.
Polyaniline-modified cholinesterase sensor for pesticide determination, 2002, *Bioelectrochemistry*, том 55, № 1-2, c. 75-77
40. Karyakin A.A., Kotel'nikova E.A., Lukachova L.V., Karyakina E.E., Wang J
Optimal environment for glucose oxidase in perfluorosulfonated ionomer membranes: Improvement of first-generation biosensors, 2002, *Analytical Chemistry*, том 74, № 7, c. 1597-1603
41. Karyakin A.A., Morozov S.V., Karyakina E.E., Varfolomeyev S.D., Zorin N.A., Cosnier S.
Hydrogen fuel electrode based on bioelectrocatalysis by the enzyme hydrogenase, 2002, *Electrochemistry Communications*, том 4, № 5, c. 417-420
42. Lukachova L.V., Kotel'nikova E.A., D'Ottavi D., Shkerin E.A., Karyakina E.E., Moscone D., Palleschi G., Curulli A., Karyakin A.A.
Electrosynthesis of poly-o-diaminobenzene on the Prussian Blue modified electrodes for improvement of hydrogen peroxide transducer characteristics, 2002, *Bioelectrochemistry*, том 55, № 1-2, c. 145-148
43. Morozov S.V., Karyakina E.E., Zorin N.A., Varfolomeyev S.D., Cosnier S., Karyakin A.A.
Direct and electrically wired bioelectrocatalysis by hydrogenase from *Thiocapsa roseopersicina*, 2002, *Bioelectrochemistry*, том 55, № 1-2, c. 169-171
44. Morozov S.V., Karyakina E.E., Zadvornyi O.A., Zorin N.A., Varfolomeev S.D., Karyakin A.A.
Bioelectrocatalysis by hydrogenase *Th. roseopersicina* immobilized on carbon materials, 2002, *Russian Journal of Electrochemistry*, том 38, № 1, c. 97-102
45. Lukachova L.V., Kotel'nikova E.A., D'Ottavi D., Shkerin E.A., Karyakinia E.E., Moscone D., Palleschi G., Curulli A., Karyakin A.A.
Nonconducting polymers on Prussian Blue modified electrodes: Improvement of selectivity and stability of the advanced H₂O₂ transducer, 2003, *IEEE Sensors Journal*, том 3, № 3, c. 326-332
46. Ivanov A.N., Evtugyn G.A., Lukachova L.V., Karyakina E.E., Budnikov H.C., Kiseleva S.G., Orlov A.V., Karpacheva G.P., Karyakin A.A.
New polyaniline-based potentiometric biosensor for pesticides detection, 2003, *IEEE Sensors Journal*, том 3, № 3, c. 333-340
47. Ulasova E.A., Micheli L., Vasii L., Moscone D., Palleschi G., Vdovichev S.V., Zorin A.V., Krutovertsev S.A., Karyakina E.E., Karyakin A.A.

Flow-injection analysis of residual glucose in wines using a semiautomatic analyzer equipped with a Prussian blue-based biosensor, 2003, *Electroanalysis*, том 15, № 5-6, с. 447-451

48. Karyakin A.A., Ivanova Y.N., Karyakina E.E.
Equilibrium (NAD(+)/NADH) potential on poly(Neutral Red) modified electrode, 2003, *Electrochemistry Communications*, том 5, № 8, с. 677-680
49. Vagin M.Y., Karyakina E.E., Hianik T., Karyakin A.A.
Electrochemical transducers based on surfactant bilayers for the direct detection of affinity interactions, 2003, *Biosensors and Bioelectronics*, том 18, № 8, с. 1031-1037
50. Lukachova L.V., Shkerin E.A., Puganova E.A., Karyakina E.E., Kiseleva S.G., Orlov A.V., Karpacheva G.P., Karyakin A.A.
Electroactivity of chemically synthesized polyaniline in neutral and alkaline aqueous solutions - Role of self-doping and external doping, 2003, *Journal of Electroanalytical Chemistry*, том 544, с. 59-63
51. Karyakin A.A., Puganova E.A., Budashov I.A., Kurochkin I.N., Karyakina E.E., Levchenko V.A., Matveyenko V.N., Varfolomeyev S.D.
Prussian Blue based nanoelectrode arrays for H₂O₂ detection, 2004, *Analytical Chemistry*, том 76, № 2, с. 474-478
52. Karyakin A.A., Puganova E.A., Budashov I.A., Kurochkin I.N., Karyakina E.E., Levchenko V.A., Matveenko V.N., Varfolomeyev S.D.
Prussian Blue Based Nanoelectrode Arrays for H₂O₂ Detection, 2004, *Analytical Chemistry*, том 76, с. 474-476
53. Karyakin A.A., Ivanova Y.N., Revunova K.V., Karyakina E.E.
Electropolymerized flavin adenine dinucleotide as an advanced NADH transducer, 2004, *Analytical Chemistry*, издательство American Chemical Society (United States), том 76, № 7, с. 2004-2009
54. Karyakin A.A., Morozov S.V., Karyakina E.E., Zorin N.A., Perelygin V.V., Cosnier S.
Hydrogenase electrodes for fuel cells, 2005, *Biochemical Society Transactions*, том 33, с. 73-75
55. Морозов С.В., Воронин О.Г., Карякина Е.Е., Карякин А.А.
Водородные топливные электроды на основе ферментов, 2006, *Нано- и микросистемная техника*, том 5, с. 9-13
56. Morozov S.V., Voronin O.G., Karyakina E.E., Zorin N.A., Cosnier S., Karyakin A.A.
Tolerance to oxygen of hydrogen enzyme electrodes, 2006, *Electrochemistry Communications*, том 8, с. 851-854
57. Лукачева Л.В., Закемовская А.А., Карякина Е.Е., Зоров И.Н., Синицын А.П., Сухачева М.В., Нетрусов А.И., Карякин А.А.
ОПРЕДЕЛЕНИЕ ГЛЮКОЗЫ И ЛАКТОЗЫ В ПРОДУКТАХ ПИТАНИЯ С ПОМОЩЬЮ БИОСЕНСОРОВ НА ОСНОВЕ БЕРЛИНСКОЙ ЛАЗУРИ, 2007, *Журнал аналитической химии*, том 62, № 4, с. 429-435
58. Karyakin A.A., Morozov S.V., Voronin O.G., Zorin N.A., Karyakina E.E., Fateyev V.N., Cosnier S.
The Limiting Performance Characteristics in Bioelectrocatalysis of Hydrogenase Enzymes, 2007, *Angewandte Chemie - International Edition*, том 119, с. 7382-7384
59. Karyakin Arkady A., Puganova Elena A., Bolshakov Ivan A., Karyakina Elena E.

- Electrochemical sensor with record performance characteristics, 2007, *Angewandte Chemie - International Edition*, том 46, № 40, с. 7678-7680
60. Voronin O.G., van Haaster D.J., Karyakina E.E., Hagen W.R., Karyakin A.A.
Direct Bioelectrocatalysis by NADP-Reducing Hydrogenase from Pyrococcus furiosus, 2007, *Electroanalysis*, том 19, № 21, с. 2264-2266
61. Lukacheva L.V., Zakemovskaya A.A., Karyakina E.E., Zorov I.N., Sinitsyn A.P., Sukhacheva M.V., Netrusov A.I., Karyakin A.A.
Determination of glucose and lactose in food products with the use of biosensors based on Berlin blue, 2007, *Journal of Analytical Chemistry*, том 62, № 4, с. 388-393
62. Karyakina Elena E., Vokhmyanina Darya V., Sizova Natalya V., Sabitov Aytugan N., Borisova Anastasiya V., Sazontova Tatyana G., Arkhipenko Yury V., Tkachuk Vsevolod A., Zolotov Yury A., Karyakin Arkady A.
Kinetic approach for evaluation of total antioxidant activity, 2009, *Talanta*, том 80, № 2, с. 749-753
63. Karyakin Arkady A., Kuritsyna Elena A., Karyakina Elena E., Sukhanov Vladislav L.
Diffusion controlled analytical performances of hydrogen peroxide sensors: Towards the sensor with the largest dynamic range, 2009, *Electrochimica Acta*, том 54, № 22, с. 5048-5052
64. Borisova Anastasiya V., Karyakina Elena E., Cosnier Serge, Karyakin Arkady A.
Current-Free Deposition of Prussian Blue with Organic Polymers: Towards Improved Stability and Mass Production of the Advanced Hydrogen Peroxide Transducer, 2009, *Electroanalysis*, том 21, № 3-5, с. 409-414
65. Корнеева Л.Х., Борисова А.В., Яшина Е.И., Калякина Е.Е., Воронин О.Г., Косниер С., Калякин А.А.
Использование метода электрохимической полимеризации п-замещенных производных пиррола для разработки нового биосенсора на лактат, 2010, *Вестник Московского университета. Серия 2: Химия*, том 2, № 51, с. 91-95
66. Yashina Eugenia I., Borisova Anastasiya V., Karyakina Elena E., Shchegolikhina Olga I., Vagin Mikhail Yu, Sakharov Dmitry A., Tonevitsky Alexandre G., Karyakin Arkady A.
Sol-Gel Immobilization of Lactate Oxidase from Organic Solvent: Toward the Advanced Lactate Biosensor, 2010, *Analytical Chemistry*, том 82, № 5, с. 1601-1604
67. Anaev E.K., Apyari V.V., Puganova E.A., Borisova A.V., Dmitrienko S.G., Karyakina E.E., Vagin M.Yu, Zolotov Yu A., Chuchalin A.G., Karyakin A.A.
Pulmonary oxidative status in norma and pathologies on the basis of analysis of exhaled breath condensate, 2010, *American journal of biomedical sciences*, том 2, № 4, с. 365-372
68. Karyakin Arkady A., Vinogradova Darya V., Morozov Sergey V., Karyakina Elena E.
Improvement of enzyme electrocatalysis using substrate containing electroactive polymers. Towards limiting efficiencies of bioelectrocatalysis, 2010, *Electrochimica Acta*, том 55, № 26, с. 7696-7700
69. Sekretaryova Alina N., Vokhmyanina Darya V., Chulanova Tatyana O., Karyakina Elena E., Karyakin Arkady A.
Reagentless Biosensor Based on Glucose Oxidase Wired by the Mediator Freely Diffusing in Enzyme Containing Membrane, 2012, *Analytical Chemistry*, том 84, № 3, с. 1220-1223

70. Воронин О.Г., Конищева Е.В., Зорин Н.А., Федотенков Ф.А., Карякина Е.Е., Карпачева Г.П., Орлов А.В., Киселева С.Г., Карякин А.А.
Дизайн электродной поверхности с использованием соединений, содержащих аналоги субстратов гидрогеназы, для создания высокоактивных топливных биоэлектрокатализаторов, 2013, Нано- и микросистемная техника, № 5, с. 15-19
71. Komkova Maria A., Karyakina Elena E., Frank Marken, Karyakin Arkady A.
Hydrogen Peroxide Detection in Wet Air with a Prussian Blue Based Solid Salt Bridged Three Electrode System, 2013, Analytical Chemistry, том 85, с. 2574-2577
72. Mokrushina Anna V., Matthias Heim, Karyakina Elena E., Alexander Kuhn, Karyakin Arkady A.
Enhanced hydrogen peroxide sensing based on Prussian Blue modified macroporous microelectrodes, 2013, Electrochemistry Communications, том 29, с. 78-80
73. Sitnikova Natalya A., Komkova Maria A., Khomyakova Irina V., Karyakina Elena E., Karyakin Arkady A.
Transition Metal Hexacyanoferrates in Electrocatalysis of H₂O₂ Reduction: An Exclusive Property of Prussian Blue, 2014, Analytical Chemistry, том 86, № 9, с. 4131-4134
74. Andreyev Egor A., Komkova Maria A., Nikitina Vita N., Zaryanov Nikolay V., Voronin Oleg G., Karyakina Elena E., Yatsimirsky Anatoly K., Karyakin Arkady A.
Reagentless polyol detection by conductivity increase in course of self-doping of boronate-substituted polyaniline, 2014, Analytical Chemistry, том 86, № 23, с. 11690-11695
75. Pribil Medeya M., Fernando Cortés-Salazar, Andreyev Egor A., Andreas Lesch, Karyakina Elena E., Voronin Oleg G., Girault Hubert H., Karyakin Arkady A.
Rapid optimization of a lactate biosensor design using soft probes, 2014, Journal of Electroanalytical Chemistry, том 731, № 1, с. 112-118
76. Pribil Medeya M., Laptev Gennady U., Karyakina Elena E., Karyakin Arkady A.
Noninvasive Hypoxia Monitor Based on Gene-Free Engineering of Lactate Oxidase for Analysis of Undiluted Sweat, 2014, Analytical Chemistry, том 86, № 11, с. 5215-5219
77. Nikitina Vita N., Kochetkov Ivan R., Karyakina Elena E., Yatsimirsky Anatoly K., Karyakin Arkady A.
Tuning electropolymerization of boronate-substituted anilines: Fluoride-free synthesis of the advanced affinity transducer, 2015, Electrochemistry Communications, том 51, с. 121-124
78. Komkova M.A., Andreyev E.A., Nikitina V.N., Krupenin V.A., Presnov D.E., Karyakina E.E., Yatsimirsky A.K., Karyakin A.A.
Novel Reagentless Label-Free Detection Principle for Affinity Interactions Resulted in Conductivity Increase of Conducting Polymer, 2015, Electroanalysis, том 27, № 9, с. 2055-2062
79. Карякин А.А., Карякина Е.Е.
Неинвазивная диагностика гипоксии с использованием высокоэффективных биосенсоров на основе наноструктурированных электро- и биокатализаторов, 2016, Acta Naturae (русскоязычная версия), том 2, с. 129
80. Вохмянина Д.В., Никулина С.В., Карякина Е.Е., Карякин А.А.

Биоэлектрохимический анализ конденсата выдыхаемого воздуха как инструмент неинвазивной диагностики, 2016, Acta Naturaе (англоязычная версия), том 2, № Спецвыпуск, с. 137

81. Karpova Elena V., Karyakina Elena E., Karyakin Arkady A.
Iron–nickel hexacyanoferrate bilayer as an advanced electrocatalyst for H₂O₂ reduction, 2016, RSC advances, том 6, с. 103328-103331
82. Karyakina E.E., Lukhnovich A.V., Yashina E.I., Statkus M.A., Tsisin G.I., Karyakin A.A.
Electrochemical Biosensor Powered by Pre-concentration: Improved Sensitivity and Selectivity towards Lactate, 2016, Electroanalysis, том 28, с. 2389 -2393
83. Никитина В.Н., Зарянов Н.В., Карякина Е.Е., Карякин А.А.
Электрополимеризация 2-аминофенилборной кислоты и применение полученного полимера для определения сахаров и оксикуслот, 2017, Электрохимия, том 53, № 3, с. 352-358
84. Zaryanov Nikolay V., Nikitina Vita N., Karpova Elena V., Karyakina Elena E., Karyakin Arkady A.
Nonenzymatic Sensor for Lactate Detection in Human Sweat, 2017, Analytical Chemistry, том 89, с. 11198-11202
85. Карякин А.А., Никулина С.В., Вохмянина Д.В., Карякина Е.Е., Анаев Э.Х., Чучалин А.Г.
Non-invasive monitoring of diabetes through analysis of the exhaled breath condensate (aerosol), 2017, Electrochemistry Communications, том 83, с. 81-84
86. Komkova M.A., Karyakina E.E., Karyakin A.A.
Noiseless Performance of Prussian Blue Based (Bio)sensors through Power Generation, 2017, Analytical Chemistry, том 89, № 12, с. 6290-6294
87. Nikitina Vita N., Zaryanov Nikolay V., Kochetkov Ivan R., Karyakina Elena E., Yatsimirsky Anatoly K., Karyakin Arkady A.
Molecular imprinting of boronate functionalized polyaniline for enzyme-free selective detection of saccharides and hydroxy acids, 2017, Sensors and Actuators, B: Chemical, том 246, с. 428-433
88. Nikitina V.N., Zaryanov N.V., Karyakina E.E., Karyakin A.A.
Electropolymerization of 2-aminophenylboronic acid and the use of the resulting polymer for determination of sugars and oxyacids, 2017, Russian Journal of Electrochemistry, том 53, № 3, с. 312-317
89. Karpova Elena V., Karyakina Elena E., Karyakin Arkady A.
Accessing Stability of Oxidase-Based Biosensors via Stabilizing the Advanced H₂O₂ Transducer, 2017, Journal of the Electrochemical Society, том 164, № 5, с. B3056-B3058
90. Карякина Е.Е., Карякин А.А.
ТЕСТ-СИСТЕМЫ МНОГОРАЗОВОГО ИСПОЛЬЗОВАНИЯ ДЛЯ НЕИНВАЗИВНОЙ ДИАГНОСТИКИ НА ОСНОВЕ ВЫСОКОЭФФЕКТИВНЫХ СЕНСОРОВ И БИОСЕНСОРОВ, 2018, Актуальная биотехнология, том 26, № 3, с. 80-84
91. Карпова Е.В., Щербачева Е.В., Тихонов Д.В., Карякина Е.Е., Карякин А.А.
Неинвазивный мониторинг глюкозы в поте с помощью высокоэффективных биосенсоров, 2018, Актуальная биотехнология, том 26, № 3, с. 61-65

92. Дарья Владимировна Вохмянина, Елена Евгеньевна Карякина, Егор Андреевич Андреев, Аркадий Аркадьевич Карякин
Мультибиосенсор на основе берлинской лазури для одновременного определения глюкозы и лактата в тонкослойной проточно-инжекционной системе, 2018, Вестник Московского университета. Серия 2: Химия, том 59, № 5, с. 337-344
93. Вохмянина Д.В., Королев А.И., Могильникова М.А., Карякина Е.Е.
Биосенсор для неинвазивного определения глюкозы с улучшенным коэффициентом чувствительности, 2018, Актуальная биотехнология, том 26, № 3, с. 72-75
94. Vokhmyanina D.V., Karyakina E.E., Andreev E.A., Karyakin A.A.
Prussian Blue-Based Thin-Layer Flow-Injection Multibiosensor for Simultaneous Determination of Glucose and Lactate, 2018, Moscow University Chemistry Bulletin, том 73, № 5, с. 216-222
95. Komkova Maria A., Karyakina Elena E., Karyakin Arkady A.
Power Generation versus Conventional Potentiostatic Operation of Prussian Blue Based (Bio)Sensors, 2018, Electroanalysis, том 30, № 4, с. 607-610
96. Komkova Maria A., Karyakina Elena E., Karyakin Arkady A.
Catalytically synthesized Prussian Blue nanoparticles defeating natural enzyme peroxidase, 2018, Journal of the American Chemical Society, том 140, с. 11302-11307
97. Карпова Елена, Алексей Лаптев, Егор Андреев, Елена Карякина, Аркадий Карякин
Sweat vs blood lactate: comment on “A soft, wearable microfluidic device for the capture, storage, and colorimetric sensing of sweat”, 2019, Science Translational Medicine
98. Karpova Elena V., Shcherbacheva Elizaveta V., Galushin Andrei A., Vokhmyanina Darya V., Karyakina Elena E., Karyakin Arkady A.
Noninvasive Diabetes Monitoring through Continuous Analysis of Sweat Using Flow-Through Glucose Biosensor, 2019, Analytical Chemistry, том 91, № 6, с. 3778-3783
99. Zavolskova Marina D., Nikitina Vita N., Maksimova Ekaterina D., Karyakina Elena E., Karyakin Arkady A.
Constant Potential Amperometric Flow-Injection Analysis of Ions and Neutral Molecules Transduced by Electroactive (Conductive) Polymers, 2019, Analytical Chemistry, том 91, № 12, с. 7495-7499
100. Vokhmyanina Darya V., Andreeva Ksenia D., Komkova Maria A., Karyakina Elena E., Karyakin Arkady A.
'Artificial peroxidase' nanozyme – enzyme based lactate biosensor, 2020, Talanta, том 208, с. 120393
101. Karpova Elena V., Karyakina Elena E., Karyakin Arkady A.
Wearable non-invasive monitors of diabetes and hypoxia through continuous analysis of sweat, 2020, Talanta, том 215, с. 120922
102. Karpova Elena V., Laptev Aleksey I., Andreev Egor A., Karyakina Elena E., Karyakin Arkady A.
Relationship Between Sweat and Blood Lactate Levels During Exhaustive Physical Exercise, 2020, ChemElectroChem, том 7, № 1, с. 191-194
103. Komkova M.A., Zarochintsev A.A., Karyakina E.E., Karyakin A.A.

Electrochemical and sensing properties of Prussian Blue based nanozymes “artificial peroxidase”, 2020, Journal of Electroanalytical Chemistry, c. 114048

104. Komkova M.A., Ibragimova O.A., Karyakina E.E., Karyakin A.A.

Catalytic Pathway of Nanozyme “Artificial Peroxidase” with 100-Fold Greater Bimolecular Rate Constants Compared to Those of the Enzyme, 2021, Journal of Physical Chemistry Letters, том 12, c. 171-176