

Карен Арменович Трчунян

Научно-исследовательский институт биологии
Директор

☎ 45-35
(060) 71-05-35

✉ k.trchounian@ysu.am



🎓 Образование

Учреждение	ЕГУ
Факультет	Биологии/Биофизика
Дата	2009 - 2011
Степень / Звание	Магистр

Учреждение	ЕГУ
Факультет	Биологии/Биофизика
Дата	2005 - 2009
Степень / Звание	Бакалавр

🎓 Ученое звание/Ученая степень

Учреждение	ЕГУ
Дата	2021
Степень / Звание	Профессор
Специальность	Биологические науки

Учреждение	ЕГУ
Дата	2019
Степень / Звание	Доцент
Специальность	Биологические науки

Учреждение	ЕГУ
Дата	2017
Степень / Звание	Доктор наук
Специальность	Биологические науки
Научная тема	Улучшение путей производства молекулярного водорода и гидрогеназной активности у бактерий во время темнового брожения

Учреждение	ЕГУ
Дата	2013
Степень / Звание	Кандидат наук
Специальность	Биологические науки
Научный руководитель	Армен Трчунян

Научная тема

ГИДРОГЕНАЗНАЯ АКТИВНОСТЬ И ОСОБЕННОСТИ ПРОДУКЦИИ H₂
ESCHERICHIA COLI ПРИ БРОЖДЕНИИ ГЛИЦЕРИНА

Знание языков

Русский English Deutsch

Опыт работы

Учреждение	ЕГУ
Период времени	2023 до настоящего времени
Звание/степень	Директор НИИ Биологии
Учреждение	МОНКС
Период времени	2021 - 2023
Звание/степень	Заместитель министра
Учреждение	ЕГУ
Период времени	2021 до настоящего времени
Звание/степень	Профессор, Кафедра биохимии, микробиологии и биотехнологии
Учреждение	ЕГУ
Период времени	2020 - 2021
Звание/степень	Заведующий лабораторией микробиологии, биоэнергетики и биотехнологии НИИ Биологии
Учреждение	ЕГУ
Период времени	2020 - 2021
Звание/степень	и.о. заведующего кафедрой биохимии, микробиологии и биотехнологии
Учреждение	ЕГУ
Период времени	2019 - 2021
Звание/степень	доцент, Кафедра биохимии, микробиологии и биотехнологии
Учреждение	ЕГУ
Период времени	2015 - 2021
Звание/степень	Замдиректор НИИ Биологии

Научные интересы

- Биохимия и Биофизика, Биоэнергетика, Микробиология и Биотехнология



Участие в международных конференциях и семинарах

20/06/2019 - 24/06/2019	ASM2019 Meeting Соединённые Штаты Америки
06/06/2018 - 11/06/2018	ASM2018 Meeting Соединённые Штаты Америки
17/06/2018 - 22/06/2018	22nd World Hydrogen Energy Congress Бразилия
01/07/2019 - 01/09/2019	DAAD Research Fellowship for short stays for academics Martin Luther University of Halle-Wittenberg Германия
06/07/2019 - 11/07/2019	44th FEBS Congress Польша
17/11/2022 - 22/11/2023	COST CA18113 Meeting TU WIEN Австрия
30/06/2022 - 02/07/2023	2nd FEMS Conference on Microbiology Сербия
19/09/2023 - 22/09/2023	Microbial stress meeting TU WIEN Австрия
04/12/2023 - 10/12/2023	Erasmus+ staff mobility University of Bourgogne Franch Comte Франция
09/07/2023 - 13/07/2023	FEMS2023 Германия



Членство

Учреждение	Посол Американского общества микробиологии в Армении
Период времени	2018 до настоящего времени
Учреждение	Американское общество микробиологии
Период времени	2010 до настоящего времени
Учреждение	Армянская ассоциация биохимиков

Период времени 2010 до настоящего времени

Учреждение Армянская микробиологическая ассоциация

Период времени 2009 до настоящего времени

Учреждение Ученый совет биологического факультета ЕГУ

Период времени 2017 до настоящего времени

Учреждение 051 Специализированный совет

Период времени 2017 до настоящего времени



Государственные награды и почетные звания

2019 Золотая медаль ЕГУ

2013 Премия Академии, посвященная 70-летию НАН РА.



Публикации

Статья

Biological production of hydrogen: From basic principles to the latest advances in process improvement

A.A. Ivanenko, A.A. Laikova, E.A. Zhuravleva, S.V. Shekhurdina, A.V. Vishnyakova, A.A. Kovalev, D.A. Kovalev, K.A. Trchounian, Y.V. Litt

International Journal of Hydrogen Energy 2024 740-755

Статья

Gold nanoparticles activate hydrogenase synthesis and improve heterotrophic growth of *Ralstonia eutropha* H16

Tatevik Manutsyan, Syuzanna Blbulyan, Anait Vassilian, Tatiana Semashko, Gayane Kirakosyan, Lilit Gabrielyan, Karen Trchounian, Anna Poladyan

FEMS Microbiology Letters 2024 1-8

Статья

Growth and hydrogen production by *Escherichia coli* during utilization of sole and mixture of sugar beet, alcohol, and beer production waste

Kairat Bekbayev, Satenik Mirzoyan, Akerke Toleugazykyzy, Dinara Tlevlessova, Anait Vassilian, Anna Poladyan, Karen Trchounian

Biomass Conversion and Biorefinery 2024 909-919

Статья

Evidence for bidirectional formic acid translocation in vivo via the *Escherichia coli* formate channel FocA

Liana Vanyan, Michelle Kammel, R Gary Sawers, Karen Trchounian

Archives of Biochemistry and Biophysics 2024 109877

Статья

Role of the Escherichia coli FocA and FocB formate channels in controlling proton/potassium fluxes and hydrogen production during osmotic stress in energy-limited, stationary phase fermenting cells

Anush Babayan, Anait Vassilian, Anna Poladyan, Karen Trchounan

Biochimie 2024 91-98

Статья

Regulation of metabolism and proton motive force generation during mixed carbon fermentation by an Escherichia coli strain lacking the FOF1-ATPase

Heghine Gevorgyan, Lilit Baghdasaryan, Karen Trchounian

Biochimica et Biophysica Acta - Bioenergetics 2024 149034

Статья

Changes in ATPase activity, antioxidant enzymes and proline biosynthesis in yeast Candida guilliermondii NP-4 under X-irradiation

Hasmik Karapetyan, Syuzan Marutyan, Anna Muradyan, Hamlet Badalyan, Seda Marutyan,

Karen Trchounian

Journal of Bioenergetics and Biomembranes 2024 1-8

Статья

L-amino acids affect the hydrogenase activity and growth of Ralstonia eutropha H16

Meri Iskandaryan, Syuzanna Blbulyan, Mayramik Sahakyan, Anait Vassilian, Karen Trchounian,

Anna Poladyan

AMB Express 2023 33

Статья

Valorization of whey-based side streams for microbial biomass, molecular hydrogen, and hydrogenase production

Anna Poladyan, Karen Trchounian, Ela Minasyan, Meri Iskandaryan, Hayarpi Aghekyan, Sargis Aghayan,

Avetis Tsaturyan, Ani Paloyan, Garabed Antranikian, Lev Khoyetsyan

Applied Microbiology and Biotechnology 2023 4683-4696

Статья

Relationship between proton/ potassium fluxes and central carbon catabolic pathways in different Saccharomyces cerevisiae strains under osmotic stress conditions

Anahit Shirvanyan, Satenik Mirzoyan, Karen Trchounian

Process Biochemistry 2023 309-318

Статья

Osmotic stress as a factor for regulating E. coli hydrogenase activity and enhancing H₂ production during mixed carbon sources fermentation

Anush Babayan, Anahit Vassilian, Karen Trchounian

AIMS Microbiology 2023 724-737

Статья

Propionic and valproic acids have an impact on bacteria viability, proton flux and ATPase activity

Heghine Gevorgyan, Tamara Abaghyan, Margarita Mirumyan, Konstantin Yenkovyan, Karen Trchounian

Journal of Bioenergetics and Biomembranes 2023 397-408

Статья

Sequential extraction of high-value added molecules from grape pomaces using supercritical fluids with water as a co-solvent

Gayane Hayrapetyan, Karen Trchounian, Laurine Buon, Laurence Noret, Benoit Pinel, Jeremy Lagrue,

Ali Assifaoui

RSC Sustainability 2023 2014-2023

Статья

HyfF subunit of hydrogenase 4 is crucial for regulating FOF1 dependent proton/potassium fluxes during fermentation of various concentrations of glucose

Liana Vanyan, Karen Trchounian

Journal of Bioenergetics and Biomembranes 2022 69-79

Статья

Biosynthesis of silver nanoparticles using extracts of Stevia rebaudiana and evaluation of antibacterial activity

Marina Timotina, Anush Aghajanyan, Robin Schubert, Karen Trchounian, Lilit Gabrielyan

World Journal of Microbiology and Biotechnology 2022 1-10

Статья

Biogas and Biohydrogen Production Using Spent Coffee Grounds and Alcohol Production Waste

Liana Vanyan, Adam Cenian, Karen Trchounian

Energies 2022 5935

Статья

Ribes nigrum L. Extract-Mediated Green Synthesis and Antibacterial Action Mechanisms of Silver Nanoparticles

Zaruhi Hovhannisyan, Marina Timotina, Jemma Manoyan, Lilit Gabrielyan, Margarit Petrosyan,

Barbara Kusznierevicz, Agnieszka Bartoszek, Claus Jacob, Mikayel Ginovyan, Karen Trchounian,

Naira Sahakyan, Muhammad Jawad Nasim

Antibiotics 2022 1-17

Статья

The influence of hydrogen production on the formation of metabolic pathways and regulation of Δ pH in Escherichia coli

Heghine Gevorgyan, Anait Vassilian, Anna Poladyan, Karen Trchounian

International Journal of Hydrogen Energy 2022 40264-40274

Статья

Structural characterization and antibacterial activity of silver nanoparticles synthesized using a low-molecular-weight Royal Jelly extract

Susanna Gevorgyan, Robin Schubert, Sven Falke, Kristina Lorenzen, Karen Trchounian, Christian Betzel

Scientific Reports 2022 14077

Статья

Metabolic pathways and Δ pH regulation in Escherichia coli during the fermentation of glucose and glycerol in the presence of formate at pH 6.5: the role of FhIA transcriptional activator

Heghine Gevorgyan, Satenik Khalatyan, Anait Vassilian, Karen Trchounian

FEMS Microbiology Letters 2022 1-9

Статья

Coffee silverskin as a substrate for biobased production of biomass and hydrogen by Escherichia coli

Satenik Mirzoyan, Hayarpi Aghekyan, Liana Vanyan, Anait Vassilian, Karen Trchounian

International Journal of Energy Research 2022 23110-23121

Образовательный Руководство

FERMENTATION

HEGHINE GEVORGYAN, KAREN TRCHOUNIAN

2022 76

Статья

Interdependence of Escherichia coli formate dehydrogenase and hydrogen-producing hydrogenases during mixed carbon sources fermentation at different pHs

Karen Trchounian, Heghine Gevorgyan, Gary Sawers, Armen Trchounian

International Journal of Hydrogen Energy 2021 5085-5099

Статья

Antibacterial activity of royal jelly-mediated green synthesized silver nanoparticles

Susanna Gevorgyan, Robin Schubert, Mkrtich Yeranossyan, Lilit Gabrielyan, Armen Trchounian,

Kristina Lorenzen, Karen Trchounian

AMB Express 2021 51

Статья

The role of Escherichia coli FhIA transcriptional activator in generation of proton motive force and FOF1-ATPase activity at pH 7.5

Heghine Gevorgyan, Satenik Khalatyan, Anait Vassilian, Karen Trchouian

IUBMB Life (International Union of Biochemistry and Molecular Biology Life) 2021 883-892

Статья

HYDROGEN PRODUCTION AND UTILIZATION OF BREWERY SPENT GRAINS WASTE BY Escherichia coli

Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

ՎԵՐԱԿԱՆԳԼՎՈՂ ԵՎ ՄԱՔՈՒՐ ԷՆԵՐԳԻԱՅԻ 7-ՐԴ ՄԻՋԱԶԳԱՅԻՆ ՀԱՄԱԺՈՂՈՎԻ ՆՅՈՒԹԵՐ 2021 65-68

Статья

INDUSTRIAL WASTE-BASED HYDROGEN PRODUCTION TECHNOLOGY: THE PROFITABILITY FOR INDUSTRIAL WASTE GENERATORS

Liana Vanyan, Heghine Gevorgyan, Hripsime Petrosyan, Armen Trchounian, Karen Trchounian

ՎԵՐԱԿԱՆԳԼՎՈՂ ԵՎ ՄԱՔՈՒՐ ԷՆԵՐԳԻԱՅԻ 7-ՐԴ ՄԻՋԱԶԳԱՅԻՆ ՀԱՄԱԺՈՂՈՎԻ ՆՅՈՒԹԵՐ 2021 56-59

Статья

THE EFFECT OF MOLECULAR HYDROGEN GENERATION ON THE METABOLIC NETWORK FORMATION DURING FERMENTATION OF MIXED CARBON SOURCES IN Escherichia coli AT pH 7.5

Heghine Gevorgyan, Armen Trchounian, Karen Trchounian

ՎԵՐԱԿԱՆԳԼՎՈՂ ԵՎ ՄԱՔՈՒՐ ԷՆԵՐԳԻԱՅԻ 7-ՐԴ ՄԻՋԱԶԳԱՅԻՆ ՀԱՄԱԺՈՂՈՎԻ ՆՅՈՒԹԵՐ 2021 60-64

Статья

Escherichia coli Dcu C4-dicarboxylate transporters dependent proton and potassium fluxes

and FOF1-ATPase activity during glucose fermentation at pH 7.5

Lusine Karapetyan, Gayane Mikoyan, Anait Vassilian, Antonio Valle, Jorge Bolivar, Armen Trchounian,

Karen Trchounian

Bioelectrochemistry 2021 107867

Статья

THE ROLE OF PROTON ATPASE SPECIFIC INHIBITOR N,N'-DICYCLOHEXYLCARBODIIMIDE AND EXTERNAL FORMATE CONCENTRATION ON E. COLI GROWTH DURING MIXED CARBON SOURCES FERMENTATION AT DIFFERENT PHs

Heghine Kh. Gevorgyan, Anait V. Vassilian, Karen A. Trchounian

Proceedings of the YSU B: Chemical and Biological Sciences 2021 67-74

Статья

Isolated culture of *A. reptance* L., its' morphological and growth features

Elen Poghosyan, Naira Sahakyan, Margarit Petrosyan, Irina Batlutskaya, Karen Trchounian

BIO Web of Conferences 2021 1-9

Статья

PECULIARITIES OF GROWTH PARAMETERS OF SACCHAROMYCES CEREVISIAE UNDER DIFFERENT CONDITIONS

Anahit H. Shirvanyan, Satenik N. Mirzoyan, Karen A. Trchounian

Proceedings of the YSU B: Chemical and Biological Sciences 2021 255-265

Статья

BIOMASS AND BIOHYDROGEN PRODUCTION BY ESCHERICHIA COLI UPON CONSUMPTION OF MEAT INDUSTRY AND LIGNOCELLULOSIC CORN WASTES MIXTURE

Syuzanna Blbulyan, Satenik Mirzoyan, Karen Trchounian, Anna Poladyan

Proceedings of the YSU B: Chemical and Biological Sciences 2021 224-231

Образовательный Руководство

Մանրէների կենսաքիմիա և կենսատեխնոլոգիա. լաբորատոր աշխատանքներ
Կարեն Թռչունյան, Հեղինե Գևորգյան, Լուսինե Կարապետյան

2021 130

Статья

Biomass and biohydrogen production during dark fermentation of Escherichia coli using office paper waste and cardboard

Anna Poladyan, Lena Margaryan, Karen Trchounian, Armen Trchounian

International Journal of Hydrogen Energy 2020 286-293

Статья

Defining the roles of the hydrogenase 3 and 4 subunits in hydrogen production during glucose fermentation: A new model of a H₂-producing hydrogenase complex

Hripsime Petrosyan, Liana Vanyan, Armen Trchounian, Karen Trchounian

International Journal of Hydrogen Energy 2020 5192-5201

Статья

Formate and potassium ions affect Escherichia coli proton ATPase activity at low pH during mixed carbon fermentation

Heghine Gevorgyan, Armen Trchounian, Karen Trchounian

Статья

Թափոնների վերամշակման մոտեցումներն ու հեռանկարները Հայաստանի Հանրապետությունում
Ռազմիկ Իսահակյան, Կարեն Թռչունյան

Alternative (Այլընտրանք) 2020 99-107

Статья

Roasted coffee wastes as a substrate for Escherichia coli to grow and produce hydrogen

Hripsime Petrosyan, Liana Vanyan, Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

FEMS Microbiology Letters 2020 fnaa088 ,7Էջ

Статья

Enhanced hydrogen gas production from mixture of beer spent grains (BSG) and distiller's grains (DG) with glycerol by Escherichia coli

Satenik Mirzoyan, Akerke Toleugazykyzy, Kairat Bekbayev, Armen Trchounian, Karen Trchounian

International Journal of Hydrogen Energy 2020 17233-17240

Статья

Influence of C4-Dcu transporters on hydrogenase and formate dehydrogenase activities in stationary phase-grown fermenting Escherichia coli

Lusine Karapetyan, Constanze Pinske, Gary Sawers, Armen Trchounian, Karen Trchounian

IUBMB Life (International Union of Biochemistry and Molecular Biology Life) 2020 1680-1685

Статья

External succinate and potassium ions influence Dcu dependent FOF1-ATPase activity and H⁺ flux of Escherichia coli at different pHs

G. Mikoyan, L. Karapetyan, A. Vassilian, A. Trchounian, K. Trchounian

Journal of Bioenergetics and Biomembranes 2020 377-382

Статья

Evidence for Escherichia coli DcuD carrier dependent FOF1-ATPase activity during fermentation of glycerol

L. Karapetyan, A. Valle, J. Bolivar, A. Trchounian, K. Trchounian

Scientific Reports 2019 4279/7

Статья

Fermentation Revisited: How Do Microorganisms Survive Under Energy-Limited Conditions?

Armen Trchounian, Karen Trchounian

Trends in Biochemical Sciences 2019 391-400

Статья

Hydrogen production by Escherichia coli during anaerobic utilization of mixture of lactose and glycerol: enhanced rate and yield, prolonged production

Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

International Journal of Hydrogen Energy 2019 9272-9281

Статья

Hydrogen production by Escherichia coli using brewery waste: optimal pretreatment of waste and role of different hydrogenases

Anna Poladyan, Karen Trchounian, Anait Vassilian, Armen Trchounian

Renewable Energy 2018 931-936

<http://www.journals.elsevier.com/renewable-energy>

Статья

The Effects of Low Doses of Gamma-Radiation on Growth and Membrane Activity of *Pseudomonas aeruginosa* GRP3 and *Escherichia coli* M17

D. Soghomonyan, A. Margaryan, K. Trchounian, K. Ohanyan, H. Badalyan, A. Trchounian

Cell Biochemistry and Biophysics 2018 209-217

<https://link.springer.com/article/10.1007%2Fs12013-017-0831-4>

Статья

Prolongation of H₂ production during mixed carbon sources fermentation in *E. coli* batch cultures: New findings and role of different hydrogenases

Satenik Mirzoyan, Anait Vassilian, Armen Trchounian, Karen Trchounian

International Journal of Hydrogen Energy 2018 8739-8746

[https://www.sciencedirect.com/journal/international-journal-of-hydrogen-energy/...](https://www.sciencedirect.com/journal/international-journal-of-hydrogen-energy/)

Статья

Understanding the role of *Escherichia coli* hydrogenases and formate dehydrogenases in the FOF1-ATPase activity during the mixed acid fermentation of mixture of carbon sources

Heghine Gevorgyan, Armen Trchounian, Karen Trchounian

IUBMB Life (International Union of Biochemistry and Molecular Biology Life) 2018 1040-1047

Статья

pH and a mixed carbon-substrate spectrum influence FocA- and FocB-dependent, formate-driven H₂ production in *Escherichia coli*

B. Hakobyan, C. Pinske, G. Sawers, A. Trchounian, K. Trchounian

FEMS Microbiology Letters 2018 1-8

Статья

Role of hydrogenases 3 and 4 in *Escherichia coli* growth and H₂ producing hydrogenase activity during anaerobic utilization of lactose

Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

International Journal of Hydrogen Energy 2018 18151-18159

Статья

Enhancement of *Escherichia coli* bacterial biomass and hydrogen production by some heavy metal ions and their mixtures during glycerol vs glucose fermentation at a relatively wide range of pH

Karen Trchounian, Anna Poladyan, Armen Trchounian

International Journal of Hydrogen Energy 2017 6590-6597

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Glycerol and mixture of carbon sources conversion to hydrogen by *Clostridium beijerinckii* DSM791 and effects of various heavy metals on hydrogenase activity

Karen Trchounian, Nicolai Muller, Bernhard Schink, Armen Trchounian

International Journal of Hydrogen Energy 2017 7875-7882

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Improving biohydrogen productivity by microbial dark- and photo-fermentations: Novel data and future approaches

Karen Trchounian, R. Gary Sawers, Armen Trchounian

Renewable & Sustainable Energy Reviews 2017 1201-1216

<https://www.journals.elsevier.com/renewable-and-sustainable-energy-reviews/>

Статья

Evidence for hydrogenase-4 catalyzed biohydrogen production in Escherichia coli

Satenik Mirzoyan, Pablo Maria Romero-Pareja, Maria Dolores Coello, Armen Trchounian,

Karen Trchounian

International Journal of Hydrogen Energy 2017 21697-21703

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Hydrogen production by Escherichia coli growing in different nutrient media with glycerol: Effects of formate, pH, production kinetics and hydrogenases involved

Karen Trchounian, Satenik Mirzoyan, Anna Poladyan, Armen Trchounian

International Journal of Hydrogen Energy 2017 24026-24034

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Millimeter waves or extremely high frequency electromagnetic fields in the environment: what are their effects on bacteria?

Diana Soghomonyan, Karen Trchounian, Armen Trchounian

Applied Microbiology and Biotechnology 2016 4761-4771

<http://www.springer.com/life+sciences/microbiology/journal/253>

Статья

Optimizing strategy for Escherichia coli growth and hydrogen production during glycerol fermentation in batch culture: Effects of some heavy metal ions and their mixtures

Karen Trchounian, Anna Poladyan, Armen Trchounian

Applied Energy 2016 335-340

<http://www.elsevier.com/locate/apenergy>

Статья

Novel approach of ethanol waste utilization: Biohydrogen production by mixed cultures of dark and photo-fermentative bacteria using distillers grains

Harutyun Sargsyan, Karen Trchounian, Lilit Gabrielyan, Armen Trchounian

International Journal of Hydrogen Energy 2016 2377-2382

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Escherichia coli growth and hydrogen production in batch culture upon formate alone and with glycerol co-fermentation at different pHs

Karen Trchounian, Varduhi Abrahamyan, Anna Poladyan, Armen Trchounian

International Journal of Hydrogen Energy 2015 9935-9941

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Hydrogen production from glycerol by Escherichia coli and other bacteria: An overview and perspectives

Karen Trchounian, Armen Trchounian

Applied Energy 2015 174-184

<http://www.elsevier.com/locate/apenergy>

Статья

H₂ production by Escherichia coli batch cultures during utilization of acetate and mixture of glycerol and acetate

Karen Trchounian, Harutyun Sargsyan, Armen Trchounian

International Journal of Hydrogen Energy 2015 12187-12192

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Escherichia coli hydrogen gas production from glycerol: Effects of external formate

Karen Trchounian, Armen Trchounian

Renewable Energy 2015 345-351

<http://www.journals.elsevier.com/renewable-energy>

Статья

Effects of Carbon Sources Mixtures on Hydrogen Production by Escherichia coli during Mixed-Acid Fermentation

K. A. Trchounian

ՀՀ ԳԱԱ գեկոլոցներ 2015 148-155

<http://www.flib.sci.am/eng/Reports/Frame.html>

Статья

Hydrogen production by Escherichia coli depends on glucose concentration and its combination with glycerol at different pHs

K.Trchounian, H. Sargsyan, A. Trchounian

International Journal of Hydrogen Energy 2014 6419-6423

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Different role of focA and focB encoding formate channels for hydrogen production by Escherichia coli during glucose or glycerol fermentation

K.Trchounian, A. Trchounian

International Journal of Hydrogen Energy 2014 20987-20991

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

Hydrogen producing activity by Escherichia coli hydrogenase 4 (hyf) depends on glucose concentratio

K.Trchounian, A. Trchounian

International Journal of Hydrogen Energy 2014 16914-16918

<http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/>

Статья

H₂ Producing Activity by Escherichia Coli During Mixed Carbon Fermentation at Slightly Alkaline and Acidic pHs: Novel Functions of Hydrogenase 4 (hyf) and Hydrogenase 2 (hyb)

Karen Trchounian, Armen Trchounian

NATO Science for Peace and Security Series C: Environmental Security, Black Sea Energy Resource
Development and Hydrogen Energy Problems
2013 137-151

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Статья

Escherichia coli multiple [Ni-Fe]-hydrogenases are sensitive to osmotic stress during glycerol fermentation but at different pHs

Karen Trchounian, Armen Trchounian

FEBS Letters 2013 3562-3566

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Статья

Hydrogen-oxidizing hydrogenases 1 and 2 of Escherichia coli regulate the onset of hydrogen evolution and ATPase activity, respectively, during glucose fermentation at alkaline

Anna Poladyan, Karen Trchounian, Armen Trchounian, R. Gary Sawers

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Статья

Escherichia coli hydrogenase 4 (hyf) and hydrogenase 2 (hyb) contribution in H₂ production during mixed carbon (glucose and glycerol) fermentation at pH 7.5 and pH 5.5

Karen Trchounian, Armen Trchounian

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Статья

Hydrogenase activity and proton-motive force generation by Escherichia coli during glycerol fermentation

Karen Trchounian, Syuzanna Blbulyan, Armen Trchounian

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Статья

Glycerol fermentation and molecular hydrogen production by Escherichia coli batch cultures affected by some reducing reagents and heavy metal ions

Anna Poladyan, Karen Trchounian, Armen Trchounian, Mikayel Minasyants

NATO Science for Peace and Security Series C: Environmental Security, Black Sea Energy Resource
Development and Hydrogen Energy Problems
2013 153-163

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Статья

Multiple and reversible hydrogenases for hydrogen production by Escherichia coli: dependence on fermentation substrate, pH and the F₀F₁-ATPase

Karen Trchounian, Anna Poladyan, Anait Vassilian, Armen Trchounian

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Статья

Transcriptional control of hydrogen production during mixed carbon fermentation by hydrogenases 4 (hyf) and 3 (hyc) in Escherichia coli

Karen Trchounian

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Статья

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Karen Trchounian, Constanze Pinske, R. Gary Sawers, Armen Trchounian

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Конференция

Glycerol Fermentation and Hydrogen Metabolism by Escherichia coli: New Approaches to Enhance Hydrogen Production

A. Poladyan, K. Trchounian, A. Trchounian

Конференция

Investigation of the Formate and Hydrogen Metabolism of Different Thermococcus Species

K. Trchounian, S. Spaans, A. Trchounian, A. Stams, S. Kengen

Конференция

Hydrogen production by Escherichia coli wild type and hydrogenase mutants upon formate and glycerol fermentation under different growth conditions

A. Poladyan, S. Mirzoyan, K. Trchounian, A. Trchounian

Конференция

Effect of Different Carbon Sources Mixture on Hydrogen Production by Escherichia coli at Slightly Alkaline pH

K.Trchounian, A. Trchounian

Конференция

New role of Escherichia coli hydrogenase 4 during glucose fermentation

Karen Trchounian, Armen Trchounian

Конференция

Developing hydrogen production biotechnology: cheap substrates, effective strains and optimized fermentative conditions

K.Trchounian, A. Poladyan, L. Gabrielyan, A. Trchounian

Конференция

H₂ production by Escherichia coli during utilization of acetate and mixture of glycerol with acetate

K. Trchounian, A. Trchounian

Конференция

Structural and functional peculiarities of bacterial hydrogenases during mixed-acid fermentation

K.Trchounian, A. Trchounian

Конференция

Escherichia coli [Ni-Fe]-hydrogenases activity during glycerol fermentation upon formate supplementation

K. Trchounian, A. Trchounian

Конференция

Different carbon sources for H₂ production by Escherichia coli

Karen Trchounian, Armen Trchounian

Конференция

Escherichia coli growth and hydrogen production upon glycerol fermentation at slightly acidic pH: effects of formate and some heavy metal ions

Karen Trchounian, Astghik Vardanyan, Anna Poladyan, Armen Trchounian

Конференция

Growth and Hydrogen Production Properties of Escherichia Coli During Fermentation of the Mixture of Glucose, Glycerol and Formate at Di

K.Trchounian, S. Mirzoyan, P. Romero-Pareja, M. Coello, A. Vassilian, A. Trchounian

Конференция

Optimization Strategy for Hydrogen Production by Escherichia coli Using Brewery Waste

A. Poladyan, K. Trchounian, A. Trchounian

Конференция

Input of hydrogenases in H₂ cycling and proton Escherichia coli during fermentation

Karen Trchounian, Armen Trchounian

Конференция

COMPENSATORY H₂ PRODUCING ACTIVITY OF ESCHERICHIA COLI HYDROGENASES DURING MIXED CARBON SOURCES FERMENTATION

K. Trchounian, S. Mirzoyan, A. Vassilian, A. Trchounian

Конференция

H₂ PRODUCTION BY ESCHERICHIA COLI BATCH CULTURES DURING FERMENTATION OF GLYCEROL, LACTOSE AT DIFFERENT pHs

S. Mirzoyan, A. Poladyan, K. Trchounian, A. Trchounian

Конференция

ESCHERICHIA COLI GROWTH AND HYDROGEN PRODUCTION USING BREWERY WASTE: OPTIMAL PRETREATMENT AND ROLE OF HYDROGENASES

A. Poladyan, K. Trchounian, A. Trchounian

Конференция

Role of Escherichia coli formate channels in H₂ production during mixed carbon sources fermentation

K. Trchounian, A. Trchounian

Конференция

Glucose concentrations influence on activities of FoF₁ ATPase and hydrogenase 4 in Escherichia coli

Конференция

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Конференция

Effect of Hydrogenases on the F₀F₁-ATPase Activity in Escherichia coli During Fermentation of Glucose, Glycerol and Formate

H. Gevorgyan, A. Vassilian, G. Sawers, A. Trchounian, K. Trchounian

Конференция

H₂ production by Escherichia coli during utilization of lactose or mixture of lactose and glycerol: prolongation of production and role of hydrogenases 1 and 2 at different pH

Satenik Mirzoyan, Anait Vassilian, Armen Trchounian, Karen Trchounian

Конференция

HYDROGEN PRODUCTION BY BACTERIA: STIMULATION EFFECTS AND RESPONSIBLE HYDROGENASES DURING XYLOSE VS. GLUCOSE DARK FERMENTATION

Anna Poladyan, Lusine Baghdasaryan, Karen Trchounian, Armen Trchounian

Конференция

Biohydrogen production by Escherichia coli during dark fermentation: novel properties of different subunits in hydrogenases 3 and 4 depending on glucose concentration

Hripsime Petrosyan, Liana Vanyan, Armen Trchounian, Karen Trchounian

Конференция

The relationship of Escherichia coli Hydrogenases with the F₀F₁-ATPase during fermentation of mixture of carbon sources

H. Gevorgyan, A. Poladyan, A. Trchounian, K. Trchounian

Конференция

Relationship of dcu transport system and proton ATPase during glycerol fermentation

L. Karapetyan, A. Valle, J. Bolivar, A. Vassilian, A. Trchounian, K. Trchounian

Конференция

From organic waste to biohydrogen: Approaches to enhance H₂ production by Escherichia coli

Anna Poladyan, Karen Trchounian, Armen Trchounian

Конференция

From organic wastes to biohydrogen: responsible hydrogenases upon different carbon mixtures utilization by Escherichia coli.

Anna Poladyan, Karen Trchounina, Armen Trchounian

Конференция

Role of Acetate in Hydrogen producing Hydrogenase 3 Activity during Glycerol Fermentation in E. coli pH 7.5

S. Mirzoyan, A. Trchounian, K. Trchounian

Конференция

Interdisciplinary approach and use of active learning methods in Master program of Applied Microbiology at university

Karen Trchounian, Armen Trchounian

Конференция

Understanding Escherichia coli formte channels working direction during fermentation of mixture of glucoseu glycerol and formate at pH 7.5

Karen Trchounian, Bella Hakobyan, Lusine Karapetyan, Armen Trchounian

Конференция

Upcycling of office waste paper and cardbord to biohydrogen

Anna Poladyan, Lena Margaryan, Karen Trchounian, Tatyana Semashko, Armen Trchounian

Конференция

The impact of FOF1-ATPase on H₂ producing hydrogenase activity in Escherichia coli during mixed carbon sources fermentation

H. Gevorgyan, S. Mirzoyan, A. Trchounian, K. Trchounian

Конференция

The effect of the mixture acetate and glycerol on E. coli growth and H₂ production during fermentation

S. Mirzoyan, A. Trchounian, K. Trchounian

Конференция

The role of Escherichia coli hydrogenase 3 subunits in hydrogen production during fermentation of high glucose concentration at different pHs

Hripsime Petrosyan, Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

Конференция

Role of dcu transporters in proton ATPase dependent proton flux during glucose fermentation at pH 7.5

Karen Trchounian, Gayane Mikoyan, Lusine Karapetyan, Satenik Mirzoyan, Antonio Valle, Jorge Bolivar,

Armen Trchounian

Конференция

The role of several subunits of Escherichia coli hydrogenase 4 in hydrogen production during fermentation of various glucose concentrations at pH 7.5

Liana Vanyan, Hripsime Petrosyan, Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

Конференция

The relationship between proton ATPase and Dcu transport system during glucose fermentation at pH 6.5

Lusine Karapetyan, Armen Trchounian, Karen Trchounian

Конференция

Role of FOF1-ATPase in H⁺ flux by Escherichia coli during lactose fermentation at different

pHs

Satenik Mirzoyan, Armen Trchounian, Karen Trchounian

Конференция

Role of dcu C4-dicarboxylate transporters in H₂ production during fermentation of glucose or glycerol

Lusine Karapetyan, Satenik Mirzoyan, Antonio Valle, Jorge Bolivar, Armen Trchounian, Karen Trchounian

Конференция

Utilization of tree leaves wastes and molecular hydrogen production by Escherichia coli

SATENIK MIRZOYAN, KAREN TRCHOUNIAN

Конференция

Investigation of Escherichia coli bacteria growth during fermentation of mixed carbon sources at different external formate concentration

HEGHINE GEVORGYAN, ARMEN TRCHOUNIAN, KAREN TRCHOUNIAN

Конференция

Interaction of membrane-bound enzymes related to proton transport and hydrogen production in Escherichia coli at acidic pH

Heghine Gevorgyan, Armen Trchounian, Karen Trchounian

Конференция

Simultaneous Utilization of Glucose and Glycerol in the Presence of External Formate by E. coli at Slightly Alkaline Ph

Karen Trchounian, Armen Trchounian, Heghine Gevorgyan, Anait Vassilian

Конференция

The Role of Escherichia coli FOF1 -ATPase and Hydrogenases on Specific Growth Rate During Glucose Fermentation

Karen Trchounian, Hripsime Petrosyan, Liana Vanyan, Armen Trchounian, Anait Vassilian

Конференция

Interaction between Escherichia coli Hydrogenase-4 and FOF1- ATPase for proton translocation during fermentation of various glucose concentrations at slightly alkaline pH.

LIANA VANYAN, ARMEN TRCHOUNIAN, KAREN TRCHOUNIAN

Конференция

ATPase activity in dcu mutants during glucose fermentation at pH 7.5

LUSINE KARAPETYAN, ARMEN TRCHOUNIAN, KAREN TRCHOUNIAN

Конференция

Anaerobic Utilization of Spent Coffee Grounds (SCG) by E. Coli: the Importance of Pretreatment to Optimize Hydrogen and Biomass Generation

L. Vanyan, H. Aghekyan, K. Trchounian

Конференция

pH homeostasis in Escherichia coli at acidic pH during fermentation of glucose and glycerol in the presence of external formate

Heghine Gevorgyan, Armen Trchounian, Karen Trchounian

Конференция

Study of Co-Fermentation of Glucose and Glycerol in the Presence of External Formate in Escherichia Coli Bacteria at pH 6.5. The Role of Fhla Regulatory Protein

H. Gevorgyan, S. Khalatyan, A. Trchounian, K. Trchounian

Конференция

Prospective Trends in Biotechnology for Biohydrogen

Karen Trchounian, Anna Poladyan, Lilit Gabrielyan, Armen Trchounian

Конференция

Escherichia coli Hydrogenases Contribution to Proton Motive Force Generation; Can Hydrogenases Be Considered as Proton Sensors?

Karen Trchounian

Конференция

ISOLATED CULTURE OF AJUGA REPTANCE L., ITS' MORPHOLOGICAL AND GROWTH FEATURES

Poghosyan E.J., Sahakyan N.Zh., Petrosyan M.T., Batlutskaya I.V., Trchounian K.A.

Конференция

Prospects of industrial and kitchen wastes application in H₂ production

Mirzoyan S., Manoyan J., Gabrielyan L., Trchounian K.

Конференция

The Role of Hydrogenases on the Interplay Between Potassium Transport System and FOF1-ATPase During the Co-fermentation of Mixed Carbon Sources in E. coli at pH 7.5

H. Gevorgyan, K. Trchounian

Конференция

The Role of Molecular Hydrogen Generation in the Metabolic Flux During Co-utilization of Mixed Carbon Sources in Escherichia coli at pH 6.5

H. Gevorgyan, K. Trchounian

Конференция

The Role of FhIA Regulatory Protein in Escherichia coli ATPase Activity at pH 5.5 During Fermentation of Mixed Carbon Sources

S. Khalatyan, H. Gevorgyan, K. Trchounian

Конференция

Role of fhIA Regulatory Protein in the Assimilation of Substrates and Generation of Fermentation End-products in Escherichia coli at Acidic pH

S. Khalatyan, H. Gevorgyan, K. Trchounian

Конференция

The role of formate neutralization and molecular hydrogen generation in the metabolic flux in Escherichia coli during fermentation of mixed carbon sources

Gevorgyan H., Poladyan A., Trchounian K.

Конференция

Proton/potassium Fluxes Depend on Glucose Concentration in E. coli at pH 7.5

Liana Vanyan, Anait Vassilian, Karen Trchounian

Конференция

Is FHL Complex Responsible for Sensing Glucose Concentration?

Liana Vanyan, Anait Vassilian, Karen Trchounian

Конференция

Biohydrogen Production from Roasted Coffee Waste: Understanding the Role of E. coli Hydrogenases During Fermentation

S. Mirzoyan, L. Vanyan, H. Aghekyan, A. Poladyan, K. Trchounian

Конференция

Optimization of Fruits Waste Pretreatment for E. coli Growth and H₂ Production

S. Mirzoyan, A. Vassilian, A. Poladyan, K. Trchounian

Конференция

INFLUENCE OF BIOHYDROGEN PRODUCTION ON THE RATIO OF GENERATED ACIDS AND REGULATION OF ΔpH IN E. coli DURING FERMENTATION OF MIXED CARBON SOURCES AT pH 7.5

Heghine Gevorgyan, Karen Trchounian

Конференция

Biosynthesis of Silver Nanoparticles by Streptomyces coelicolor A3(2) and Their Antibacterial Activity

S. Gevorgyan, S. Falke, C. Betzel, A. Trchounian, G. Sawers, K. Trchounian

Конференция

Biomass and biohydrogen production by Escherichia coli upon consumption of meat and lignocellulosic waste mixture

Syuzanna Blbulyan, Anna Poladyan, Satenik Mirzoyan, Liana Mnatsakanyan, Karen Trchounian

Конференция

Antibacterial activity of silver nanoparticles biosynthesized from Stevia rebaudiana extract

M. Timotina, A. Aghajanyan, L. Gabrielyan, K. Trchounian

Конференция

Potassium and proton ions transport during glucose fermentation in Saccharomyces cerevisiae under glycerol-induced osmotic stress at different pHs

A. Shirvanyan, S. Mirzoyan, K. Trchounian

Конференция

Prospects for the use of Ficus carica L. leave extract as bio-preservative agent

Anahit Shirvanyan, Alvard Minasyan, Anush Babayan, Armine Moghrovyan, Naira Sahakyan,

Margarit Petrosyan, Karen Trchounian

Конференция

The valorization of whey-based side-streams for microbial biomass, hydrogen and

hydrogenase enzyme production

Anna Poladyan, Hayarpi Aghekyan, Ella Minasyan, Karen Trchounian, Ani Paloyan, Sargis Aghayan, Garabed Antranikian, Meri Iskandaryan, Diana Ghevondyan

Конференция

The contribution of proton ATPase in E. coli growth during mixed carbon sources fermentation at different pHs

Heghine Gevorgyan, Lilit Baghdasaryan, Anait Vassilian, Karen Trchounian

Конференция

Role of E. coli potassium transporters in proton / potassium flux during mixed carbon fermentation at pH 7.5

Heghine Gevorgyan, Mariam Danielyan, Anait Vassilian, Karen Trchounian

Конференция

Regulation of catalase and superoxide dismutase activities by sodium and potassium ions in Saccharomyces cerevisiae

A. Shirvanyan, S. Mirzoyan, K. Trchounian

Конференция

Green synthesis of silver nanoparticles and their effect on the energy-dependent H⁺ -fluxes across the bacterial membrane

M. Timotina, T. Manutsyan, A. Aghajanyan, K. Trchounian, L. Gabrielyan

Конференция

HYDROGEN PRODUCTION DURING GLUCOSE AND FORMATE UTILIZATION IN OSMOTIC STRESSED CELLS OF ESCHERICHIA COLI AT ALKALINE PH

Anush Babayan, Karen Trchounian

Конференция

Influence of osmotic stress on H₂ production in Escherichia coli during fermentation of mixed carbon sources at acidic pH

Anush Babayan, Karen Trchounian

Конференция

A NOVEL COST-EFFECTIVE APPROACH FOR PRODUCTION OF HYDROGENASE ENZYMES AND MOLECULAR HYDROGEN FROM WHEY-BASED BY-PRODUCTS

Anna Poladyan, Meri Iskandaryan, Ofelya Karapetyan, Ela Minasyan, Anait Vassilian, Karen Trchounian,

Garabed Antranikian

Конференция

REDOX REGULATION OF HYDROGEN PRODUCTION IN ESCHERICHIA COLI DURING GROWTH ON BYPRODUCTS OF THE WINE INDUSTRY

Lusine Baghdasaryan, Karen Trchounian, Garabed Antranikian, Anna Poladyan, Ofelya Karapetyan

Конференция

BIOTECHNOLOGICAL POTENTIAL OF SPENT COFFEE GROUNDS FOR LARGE-SCALE HYDROGEN PRODUCTION

Liana Vanyan, Anait Vassilian, Anna Poladyan, Karen Trchounian

Конференция

Influence of acidic pH on the interaction between proton ATPase and enzymes responsible for molecular hydrogen generation

Karen Trchounian, Heghine Gevorgyan, Lilit Baghdasaryan, Anait Vassilian, Anna Poladyan

Конференция

The penetration of PPA is mediated with H⁺ efflux in Gram-negative and Grampositive bacteria

Tamara Abaghyan, Heghine Gevorgyan, Margatita Mirumyan, Konstantin Yenkoyan, Karen Trchounian

Конференция

Formate-hydrogen lyase has a significant role in proton motive force generation in Escherichia coli at acidic pH during mixed carbon fermentation

Heghine Gevorgyan, Anait Vassilian, Anna Poladyan, Karen Trchounian
