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Օրգանական թափոնների կենսաքիմիական փոխակերպման և մանրէաբանական արտադրության խումբ
Старший научный сотрудник

Образование

Учреждение	ЕГУ
Факультет	Биологии
Дата	1979 - 1984
Степень / Звание	Квалифицированный специалист

Ученое звание/Ученая степень

Учреждение	ЕГУ
Дата	2005
Степень / Звание	Доцент
Специальность	Биологические науки

Учреждение	ЕГУ
Дата	1993
Степень / Звание	Кандидат наук
Специальность	Биологические науки
Научный руководитель	д.б.н, проф. Армен Трчунян
Научная тема	АТФазная активность в мембранах unc и trk мутантов анаэробно выращенных Escherichia coli

Знание языков

Русский English

Опыт работы

Учреждение	ЕГУ
Период времени	2005 до настоящего времени
Звание/степень	Доцент кафедры экологии и защиты природы

Учреждение	ЕГУ
Период времени	2000 - 2005

Звание/степень	Ассистент кафедры экологии и защиты природы

Учреждение	University of Chicago, IL USA
Период времени	1998 - 1998
Звание/степень	Научный сотрудник Department of Molecular Genetics and Cell Biology /MGCB/ University of Chicago, IL USA / Prof. M. Fonstein / IHFSPO UNESCO

Учреждение	University of Chicago, IL USA
Период времени	1995 - 1996
Звание/степень	Научный сотрудник Department of Molecular Genetics and Cell Biology /MGCB/ University of Chicago, IL USA / Prof. B. Strauss / IHFSPO UNESCO

Учреждение	University of Chicago, IL USA
Период времени	1991 - 1992
Звание/степень	Научный сотрудник Department of Molecular Genetics and Cell Biology /MGCB/ University of Chicago, IL USA / Prof. B. Strauss / Support by International Human Frontier Science Program

Учреждение	ЕГУ
Период времени	1988 - 2000
Звание/степень	Старший лаборант кафедры физиологии и анатомии растений

Учреждение	ЕГУ
Период времени	1984 - 1988
Звание/степень	Лаборант кафедры физиологии и анатомии растений

Научные интересы

- Биохимия, Окружающая среда, Микробиология и Биотехнология

Участие в международных конференциях и семинарах

01/11/1991 - 01/09/1992	Научный сотрудник, Кафедра Молекылярной генетики и клеточной биологии проф. Б. Страус University of Chicago Соединённые Штаты Америки
01/12/1995 - 01/03/1996	International Human Frontier Science Program Fellowship, UNESCO University of Chicago Соединённые Штаты Америки
01/09/1998 - 01/12/1998	International Human Frontier Science Program Fellowship, UNESCO University of Chicago

Соединённые Штаты Америки

13/06/2016 - 16/06/2016	21st WHEC Congress in Zaragoza, Spain Испания
30/06/2022 - 02/07/2022	2nd FEMS Conference on Microbiology, Belgrade, Serbia Сербия
09/07/2023 - 13/07/2023	FEMS2023 Congress in Hamburg, Germany Германия

Публикации

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

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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

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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

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Proton conductance and regulation of proton/potassium fluxes in Escherichia coli FhlA-lacking cells during fermentation of mixed carbon sources
Heghine Gevorgyan, Anna Poladyan, Karen Trchounian, Anait Vassilian

Archives of Biochemistry and Biophysics 2024 109999

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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

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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

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Статья

The influence of hydrogen production on the formation of metabolic pathways and regulation of ΔpH in Escherichia coli
Heghine Gevorgyan, Anait Vassilian, Anna Poladyan, Karen Trchounian

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Metabolic pathways and ΔpH regulation in Escherichia coli during the fermentation of glucose and glycerol in the presence of formate at pH 6.5: the role of FhlA transcriptional activator
Heghine Gevorgyan, Satenik Khalatyan, Anait Vassilian, Karen Trchounian

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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

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Статья

The role of Escherichia coli FhlA 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

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

Karen Trchounian
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THE ROLE OF PROTON ATPASE SPECIFIC INHIBITOR N,N’-DICYCLOHEXYLCARBODIIMIDE AND EXTERNAL FORMATE CONCENTRATION ON E. COLIGROWTH DURING MIXED CARBON SOURCES FERMENTATION AT DIFFERENT PHs
Heghine Kh. Gevorgyan, Anait V. Vassilian, Karen A. Trchounian

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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. Vassiian, A. Trchounian, K. Trchounian

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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

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Satenik Mirzoyan, Anait Vassilian, Armen Trchounian, Karen Trchounian

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Ա.Վ. Վասիլյան, Հ.Հ. Փանոսյան, Ա.Հ. Թռչունյան

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Hydrogen production by Escherichia coli during glucose fermentation: Effects of oxidative and reductive routes used by the strain lacking hydrogen oxidizing hydrogenases 1 (hya) and 2 (hyb)
Varduhi Abrahamyan, Anna Poladyan, Anait Vassilian, Armen Trchounian

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Anna Poladyan, Anait Vassilian, Armen Trchounian, Arev Avagyan

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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

Critical Reviews in Biochemistry and Molecular Biology 2012 236-249

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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

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Конференция

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

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

Конференция

Effect of Hydrogenases on the F0F1-Atpase Activity in Escherichia coli During Fermentation of Glucose, Glycerol and Formate
H. Gevorkyan, A. Vassilian, G. Sawers, A. Trchounian, K. Trchounian

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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

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Конференция

Relationship of dcu transport system and proton ATPase during glycerol fermentation
L. Karapetyan, A. Valle, J. Bolivar, A. Vassilian, A. Trchounian, K. Trchounian

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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

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Конференция

The Role of Escherichia coli FOF1 -ATPase and Hydrogenases on Specific Growth Rate During Glucose Fermentation
Karen Trchounian, Hripmsime Petrosyan, Liana Vanyan, Armen Trchounian, Anait Vassilian

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Конференция

Proton/potassium Fluxes Depend on GlucoseConcentration in E. coli at pH 7.5
Liana Vanyan, Anait Vassilian, Karen Trchounian

Конференция

Is FHL Complex Responsible for SensingGlucose Concentration?
Liana Vanyan, Anait Vassilian, Karen Trchounian

Конференция

Optimization of Fruits Waste Pretreatment for E. coli Growth and H2 Production
S. Mirzoyan, A. Vassilian, A. Poladyan, K. Trchounian

Конференция

WINE GRAPE WASTE APPLICATION FOR ESCHERICHIA COLI BIOMASS AND H2 PRODUCTION
Syuzanna Blbulyan, Lusine Baghdasaryan, Satenik Mirzoyan, Anahit Vassilian, Tatiana Semashko,

Anna Poladyan

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

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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

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Конференция
ՕՐԳԱՆԱԿԱՆ ԹԱՓՈՆՆԵՐԻՑ ԿԵՆՍԱԶԱՆԳՎԱԾԻ ԵՎ ԿԵՆՍԱԷՆԵՐԳԻԱՅԻ ՓՈԽԱԿԵՐՊՄԱՆ ԿԵՆՍԱՔԻՄԻԱԿԱՆ ՈՒՂԻՆԵՐԻ ԲՆՈՒԹԱԳՐՈՒՄԸ ԵՎ ՕՔՍԻԴԱՎԵՐԱԿԱՆԳՈՂԱԿԱՆ ԿԱՐԳԱՎՈՐՈՒՄԸ
Փոլադյան Ա.Ա., Գևորգյան Հ.Խ., Վանյան Լ.Մ., Բաբայան Ա.Ռ., Բաղդասարյան Լ.Հ., Վասիլյան Ա.Վ.,

Պետրոսյան Հ.Հ.

Конференция
Characteristic effects of gold nanoparticles on growth and H2 metabolism of Ralstonia eutropha H16 and Escherichia coli
Anna Poladyan, Tatev Manutsyan, Meri Iskandaryan, Syuzanna Blbulyan, Anait Vassilian,

Tatiana Semashko

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 Anatranikian

Конференция
BIOTECHNOLOGICAL POTENTIAL OF SPENT COFFEE GROUNDS FOR LARGE-SCALE HYDROGEN PRODUCTION
Liana Vanyan, Anait Vassilian, Anna Poladyan, Karen Trchounian

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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

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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

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Конференция
Understanding the Role of Escherichia coli Hydrogenase-2 subunits in proton flux under different glucose concentrations
Liana Vanyan, Anait Vassilian, Anna Poladyan, Karen Trchounian

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Конференция
The role of the Escherichia coli FocA and FocB formate channels in proton flux during fermentation of mixed carbon sources
Anush Babayan, Anait Vassilian, Anna Poladyan, Karen Trchounian

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