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Կենսաբիոլոգիայի, մանրէաբանության և կենսատեխնոլոգիայի ամբիոն
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🌐 Знание языков

Հայերեն Русский English

^K Научные интересы

- Биоэнергетика, Биохимия, Микробиология, Биотехнология

⭐ Государственные награды и почетные звания

2016 Премия Моррисона Рогозы Американского общества микробиологии (ASM)

2019 Серебряная медаль по случаю 100-летия ЕГУ

📖 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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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

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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 Trchounian

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Proton conductance and regulation of proton/potassium fluxes in *Escherichia coli* FhlA-lacking cells during fermentation of mixed carbon sources

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Development of an H₂ fuel cell electrochemical system powered by Escherichia coli cells
Torgom Seferyan, Lusine Bagdasaryan, Meri Iskandaryan, Karen Trchounian, Anna Poladyan

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

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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

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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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I. A. BADALYAN, A. A. POLADYAN

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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

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

Anna Poladyan, Lena Margaryan, Karen Trchounian, Armen Trchounian

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Application of organic waste glycerol to produce crude extracts of bacterial cells and microbial hydrogenase—the anode enzymes of bio-electrochemical systems

Anna Poladyan, Syuzanna Blbulyan, Tatiana Semashko, Volha Dziameshka, Liudmila Zhukouskaya,

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ETHANOL SUPPLEMENTATION AS A NEW APPROACH TO REGULATE GROWTH AND HYDROGEN PRODUCTION OF ESCHERICHIA COLI UPON GLYCEROL FERMENTATION

A. A. Poladyan

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Growth of the facultative chemolithoautotroph Ralstonia eutropha on organic waste materials: Growth characteristics, redox regulation and hydrogenase activity

Anna Poladyan, Syuzanna Blbulyan, Mayramik Sahakyan, Oliver Lenz, Armen Trchounian

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Anna Poladyan, Armen Trchounian

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A. Poladyan

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Anna Poladyan, Anait Vassilian, Armen Trchounian, Arev Avagyan

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Конференция

Effect of Different Substrates on Growth and Redox Potential Kinetics of Escherichia coli Wild Type and Hydrogenases Lacking Mutant

Anna Poladyan, Satenik Mirzoyan, Armen Trchounian

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

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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

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

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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

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Optimization Strategy for Hydrogen Production by Escherichia coli Using Brewery Waste

A. Poladyan, K. Trchounian, A. Trchounian

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

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

A. Poladyan, K. Trchounian, A. Trchounian

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

A. Poladyan, M. Sahakyan, S. Blbulyan, K. Trchounian, A. Trchounian

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Growth and Bioenergetics Properties of Facultative Chemolithoautotrophic Bacterium**Ralstonia Eutropha Upon Organic Waste Materials Utilization**

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Batch Fermentation Characteristics and Hydrogen Production of Escherichia coli Wild Type and Hydrogenase Mutants Using Xylose As Feedstock

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

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Anna Poladyan, Karen Trchounian, Armen Trchounian

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Анализ использования гидрогеназ *Escherichia coli* в качестве анодных ферментов

Анна Поладян, Армен Трчунян, Татьяна Семашко, Людмила Жуковская, Ольга Демешко

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

Anna Poladyan, Karen Trchounina, Armen Trchounian

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Hydrogenase Activity of the Facultative Chemolithoautotroph *Ralstonia eutropha* Consuming Brewery Waste

A. Poladyan, O. Lenz, A. Trchounian

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***Ralstonia eutropha* Hydrogenase Application in Bioelectrocatalysis as Anode Enzyme**

A. Poladyan, T. Semashko, L. Zhukouskaya, V. Dziameshka, A. Trchounian

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Analysis of the *Escherichia coli* hydrogenases as anodic enzymes in bioelectrochemical system

Anna Poladyan, Tatyana Semashko, Lyudmila Zhukouskaya, Volha Diameshka, Armen Trchounian

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Upcycling of office waste paper and cardbord to biohydrogen

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

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Redox regulation of the growth, hydrogenase activity and bioenergetic properties of *Ralstonia eutropha* upon different carbon source utilization

S. Blbulyan, M. Sahakyan, A. Poladyan, A. Trchounian

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Lignocellulosic waste as feedstock for bacterial biomass production:enhanced hydrogen evolution and hydrogenase activity

Anna Poladyan, Syuzanna Blbulyan, Mayramik Sahakyan, Armen Trchounian

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H₂ - Oxidizing Activity of *Escherichia coli* Upon Utilization of Different Waste Components

A. Poladyan, L. Baghdasaryan, S. Blbulyan, A. Trchounian

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Ethanol Affected Bacterial Growth and molecular Hydrogen Production by *Escherichia coli* Upon Fermentation of Glycerol

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Prospective Trends in Biotechnology for Biohydrogen

Karen Trchounian, Anna Poladyan, Lilit Gabrielyan, Armen Trchounian

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

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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

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

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

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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

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WINE GRAPE WASTE APPLICATION FOR ESCHERICHIA COLI BIOMASS AND H₂ PRODUCTION

Syuzanna Blbulyan, Lusine Baghdasaryan, Satenik Mirzoyan, Anahit Vassilian, Tatiana Semashko,

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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

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THE OXIDATIVE STRESS AND POSSIBLE PREVENTIVE ACTION OF PLANT BORN POLYPHENOLS

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THE OXIDATIVE STRESS AND T2DM-INDUCED DIABETIC NEPHROPATHY: POSSIBLE PREVENTIVE ACTION OF PANT-BORN OLIGOMERIC POLYPHENOLS

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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,
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The role of glycine-betaine in the hydrogen metabolism of Ralstonia eutropha H16

Meri Iskandaryan, Liana Mnatsakanyan, Anna Poladyan

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Fe ions effect on hydrogenase activity of Ralstonia eutropha H16 in various growth media

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

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

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

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

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

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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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The impact of oxygen-tolerant hydrogenases on cell energetics of Cupriavidus necator H16

Meri Iskandaryan, Anna Poladyan

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Understanding the Role of Escherichia coli Hydrogenase-2 subunits in proton flux under different glucose concentrations

Liana Vanyan, Anait Vassilian, Anna Poladyan, Karen Trchounian
