

# Liana Manvel Vanyan

☎ 37494535101

✉ liana.vanyan@ysu.am



## Research Institute of Biology

Մանրէաբանության, կենսաէներգետիկայի և կենսատեխնոլոգիայի լաբորատորիա  
Junior Researcher

## Education

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Biology/ Biochemistry, Microbiology and Biotechnology
<b>Date</b>	2021 - 2024
<b>Degree name</b>	PhD student

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Biology
<b>Date</b>	2019 - 2021
<b>Degree name</b>	Masters

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Biology
<b>Date</b>	2015 - 2019
<b>Degree name</b>	Bachelor

## Language skills

Հայերեն Русский English

## Work experience

<b>Institution</b>	Research Institute of Biology
<b>Period of time</b>	2021 till now
<b>Rank/degree</b>	Junior researcher

<b>Institution</b>	Research Institute of Biology
<b>Period of time</b>	2019 - 2021
<b>Rank/degree</b>	Laboratory assistant

## Publications

*Article*

**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

---

*Article*

**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

---

*Article*

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

Liana Vanyan, Adam Cenian, Karen Trchounian

Energies 2022 5935

---

*Article*

**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

---

*Article*

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

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

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

---

*Article*

**Defining the roles of the hydrogenase 3 and 4 subunits in hydrogen production during glucose fermentation: A new model of a H<sub>2</sub>-producing hydrogenase complex**

Hripsime Petrosyan, Liana Vanyan, Armen Trchounian, Karen Trchounian

International Journal of Hydrogen Energy 2020 5192-5201

---

*Article*

**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

---

*Conference*

**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

---

*Conference*

**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

---

*Conference*

**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

---

*Conference*

### **NOVEL APPLICATION FOR ROASTED COFFEE WASTES AS A SUBSTRATE FOR DEVELOPMENT OF BIOFERTILIZERS**

Liana Vanyan Manvel

---

*Conference*

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

Liana Vanyan, Anait Vassilian, Karen Trchounian

---

*Conference*

### **Is FHL Complex Responsible for Sensing Glucose Concentration?**

Liana Vanyan, Anait Vassilian, Karen Trchounian

---

*Conference*

### **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

---

*Conference*

**ՕՐԳԱՆԱԿԱՆ ԹԱՓՈՆՆԵՐԻՑ ԿԵՆՍԱՉԱՆԳՎԱԾԻ ԵՎ ԿԵՆՍԱԷՆԵՐԳԻԱՅԻ ՓՈԽԱԿԵՐՊՄԱՆ ԿԵՆՍԱՔԻՄԻԱԿԱՆ ՈՐԴԻՆԵՐԻ ԲՆՈՒԹԱԳՐՈՒՄԸ ԵՎ ՕՔՍԻԴԱԿԵՐԱԿԱՆԳՈՂԱԿԱՆ ԿԱՐԳԱՎՈՐՈՒՄԸ**  
Փոլադյան Ա.Ա., Գևորգյան Հ.Խ., Վանյան Լ.Մ., Բաբայան Ա.Ռ., Բաղդասարյան Լ.Հ., Վասիլյան Ա.Վ.,

Պետրոսյան Հ.Հ.

---

*Conference*

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

Liana Vanyan, Anait Vassilian, Anna Poladyan, Karen Trchounian

---