

# CURRICULUM VITAE

## Chaeho Im

Division of Industrial Biotechnology, Biology and Biological Engineering,  
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## Education

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### **Doctoral Student** (August, 2019 to Present)

Division of Industrial Biotechnology, Biology and Biological Engineering  
Chalmers University of Technology, Göteborg, Sweden

**Project:** Elucidating stress related to fermenting syngas – towards efficient conversion of CO and CO<sub>2</sub> into bioethanol

### **Researcher** (February, 2018 to April, 2019)

School of Energy and Chemical Engineering,  
Ulsan National Institute of Science and Technology, Ulsan, Korea

**Project:** C1 Gas Refining Program. 3-Hydroxypropionate production from acetate derived from syngas fermentation in Engineered *Escherichia coli*

### **Researcher** (April, 2017 to December, 2017)

Institute of Environmental Technology & Industry (IETI),  
Pusan National University, Busan, Korea

**Project:** C1 Gas Refining Program. 1) Isolation of CO fermenting bacteria 2) CO fermentation in bioelectrochemical system

### **MS (M.Sc.) in Chemical Engineering** (March, 2015 to February, 2017)

Pusan National University, Busan, Korea.

**Thesis:** C1 Gas Fermentation for Value-added Chemical Production using Bioelectrochemical system

**Supervisor:** Dr. Jung Rae Kim

### **BS (B.Sc) in Chemical and Biomolecular Engineering** (2012-2015)

Pusan National University, Busan, Korea.

### **Associate degree of Engineering in Chemical Engineering** (\*2007-2011)

Yeungnam University College, Daegu, Korea.

\* 4 years of associate degree of Engineering includes 2 years of mandatory military service period  
(July, 2007 - July, 2009)

## **PUBLICATIONS**

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Hyeon Sung Im, Changman Kim, Young Eun Song, Jiyun Baek, Chae Ho Im, and Jung Rae Kim. "Isolation of novel CO converting microorganism using zero valent iron for a bioelectrochemical system (BES)" *Biotechnology and Bioprocess Engineering*, 24, 1, (2019): 232-239

Chae Ho Im, Changman Kim, Young Eun Song, Sang-Eun Oh, Byong-Hun Jeon, and Jung Rae Kim. "Electrochemically enhanced microbial CO conversion to volatile fatty acids using neutral red as electron shuttle" *Chemosphere*, 191, (2018): 166-173.

Chae Ho Im, Young Eun Song, Byong-Hun Jeon, and Jung Rae Kim. "Biologically activated graphite fiber electrode for autotrophic acetate production from CO<sub>2</sub> in a bioelectrochemical system" *Carbon letters*, 20, 1, (2016): 76-80

## **PATENT**

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Jung Rae Kim, Young Eun Song, Chae Ho Im, Hyeon Sung Im, Changman Kim, Ji Yun Beak "Electrochemical bioreactor for biological C1 gas conversion process and method for processing using thereof" Korean patent application number 10-2018-0117357, 2018/10, Pusan National University

## **AWARDS AND RECOGNITION**

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- Best oral presentation awards twice from local conferences organized by "The Korean Institute of Chemical Engineers".

## **RESEARCH SKILLS**

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- Anaerobic bacteria cultivation
- Molecular Biology
- Bioelectrochemistry
- Experimental analysis

## **COMPUTER SKILLS**

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- Microsoft office [ Excel, Word, Powerpoint ]
- LabVIEW