Hana Gebreegziabher Zeweldi

Date of birth: 20/11/1992 | **Nationality:** Ethiopian | **Gender:** Female | (+82) 1096638238 |

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WORK EXPERIENCE

01/09/2020 – CURRENT – Yongin, South Korea
POST DOCTORAL RESEARCHER – DEPARTEMENT OF ENERGY SCIENCE AND TECHNOLOGY, MYONGJI UNIVERSITY

EDUCATION AND TRAINING

01/09/2016 – 30/08/2020 – 116 Myongji-ro, Cheoin-gu, Yongin-si, Gyeonggi-do South Korea 17058, Gyeonggi-do, South Korea
PHD IN ENERGY SCIENCE AND TECHNOLOGY – Myongji University

https://www.mju.ac.kr/sites/mjukr/intro/intro.html

17/07/2011 – 11/07/2016 – King George VI St, Addis Ababa 1000, Ethiopia, Addis Ababa, Ethiopia
BACHELOR OF SCIENCE (BSC) IN CHEMICAL ENGINEERING (PROCESS ENGINEERING MAJOR) – Addis Ababa institute of technology (AAiT) , Addis Ababa University

http://www.aait.edu.et/

01/09/2004 – 01/08/2011 – Addis Ababa, Ethiopia, Addis Ababa, Ethiopia
HIGH SCHOOL DIPLOMA – Magic Carpet High School

https://www.ethiovisit.com/directory/magic-carpet-school/1235/

PUBLICATIONS

The potential of monocationic imidazolium-, phosphonium-, and ammonium-based hydrophilic ionic liquids as draw solutes for forward osmosis

Desalination 444 (2018) 94-106.
https://www.sciencedirect.com/science/article/pii/S0011916418312645 – 2018
Hana G. Zeweldi, L.A. Lumjico, A.P. Bendoy, H.-S. Kim, M.J. Park, H.K. Shon, E.M. Johnson, H. Lee, Grace M. Nisola, W.-J. Chung

Tetrabutylammonium 2,4,6-trimethylbenzenesulfonate as an effective and regenerable thermo-responsive ionic liquid drawing agent in forward osmosis for seawater desalination.

Desalination
https://www.sciencedirect.com/science/article/abs/pii/S0011916420313138 – 2020
Hana G. Zeweldi, Anelyn P. Bendoy, Myoung Jun Park, Ho Kyong Shon, Han-Seung Kim, Eldin M. Johnson, Hern Kim, W.-J. Chung, Grace M. Nisola

Forward osmosis with direct contact membrane distillation using tetrabutylphosphonium p-toluenesulfonate as an effective and safe thermo-recyclable osmotic agent for seawater desalination

Chemosphere
https://www.sciencedirect.com/science/article/abs/pii/S0045653520322657 – 2021
Hana G. Zeweldi, Anelyn P. Bendoy, Myoung Jun Park, Ho Kyong Shon, Eldin M. Johnson, Han-Seung Kim, Hern Kim a, Wook-Jin Chung, Grace M. Nisola

Supramolecular host-guest complex of methylated β-cyclodextrin with polymerized ionic liquid ([vbim]TFSI)n as highly effective and energy-efficient thermo-regenerable draw solutes in forward osmosis

Chemical Engineeering Journal
https://www.sciencedirect.com/science/article/abs/pii/S1385894721001182 – 2020
Hana G. Zeweldi, Anelyn P. Bendoy, Myoung Jun Park, Ho Kyong Shon, Han-Seung Kim, Eldin M. Johnson, Hern Kim, Wook-Jin Chung, Grace M. Nisola

PROJECTS

01/06/2016 – 31/05/2019
Development of forward osmosis membrane with smart draw solution for seawater desalination

(No. 2016R1A2B1009221)

01/06/2019 – 31/05/2020
Development of novel draw solutes using host-guest complex mechanism for the forward osmosis memb

(No.20192019R1I1A1A01058207)

18/10/2021 – CURRENT
Development of new draw solute for forward osmosis membrane separation using deep eutectic solvent-based hydrogels

No. 2021R111A1A01050003
Principal investigator

HONOURS AND AWARDS

18/05/2017
Best poster presentation award – The membrane society of Korea

Systematic investigation of ionic liquids as effective draw solutes for forward osmosis

03/06/2018
AMS11 travel award – Aseanian membrane society (AMS11)

Thermo-Responsive Ionic Liquids with LCST-Type Phase Transition Property As Draw Solutes in Forward Osmosis for Seawater Desalination

05/05/2019

Best student poster presentation award – Aseanian membrane society (AMS12)

Thermo-responsive ionic liquids with LCST-type phase transition as draw solutes in forward osmosis for seawater desalination

16/11/2019

Best oral presentation award – Korean Society of Environmental Engineers (KOSENV)

The potential of monocationic imidazolium-, phosphonium-, and ammonium-based hydrophilic ionic liquids as draw solutes for forward osmosis

TEACHING ASSISTANCE

03/09/2020 – 17/12/2020

Instrumental Analysis for Inorganic materials

Myongji University

04/03/2020 – 16/06/2020

Instrumental Analysis for Organic materials

Myongji University

CONFERENCES AND SEMINARS

International and Domestic conferences

11/11/2019 – 15/11/2019 – 2019 AIChE Annual Meeting (AICHE), Orlando, FL, USA

Hydrophilic magnetic ionic Liquid-based draw Solutes in forward osmosis for sea water desalination

Poster presentation

11/12/2019 – 13/12/2019 – IEEC & BWR 2019, Busan, South Korea

Hydrophilic magnetic ionic liquid-based draw solutes in forward osmosis for seawater desalination

Oral presentation

02/07/2019 – 05/07/2019 – The 12th conference of the Aseanian membrane society (AMS12), Jeju city, South Korea

Thermo-responsive ionic liquids with LCST-type phase transition as draw solutes in forward osmosis for seawater desalination

Poster presentation

02/07/2019 – 05/07/2019 – The 12th conference of the Aseanian membrane society , Jeju city, South Korea

Magnetic ionic liquid-based sraw solutes in Forward osmosis for sea Water Desalination

Oral presentation

14/10/2018 – 16/10/2018 – Korean Society of Environmental Engineers (KOSENV), Gwanju, South Korea
The potential of monocationic imidazolium-, phosphonium-, and ammonium-based hydrophilic ionic liquids as draw solutes for forward osmosis

Oral presentation

13/11/2018 – 16/11/2018 – Korean membrane society (KMS) , Daejeon, South Korea
Systematic investigation of ionic liquids as effective draw solutes for forward osmosis

Oral presentation

03/07/2018 – 06/07/2018 – 11th conference of the Aseanian Membrane society, Brisbane, Australia
Thermo-responsive ionic liquids with LCST-type phase transition as draw solutes in forward osmosis for seawater desalination

Poster presentation

03/07/2018 – 06/07/2018 – 11th conference of the Aseanian Membrane society ,Brisbane, Australia
A systematic investigation of ionic liquids as effective draw solutes for forward osmosis

Poster presentation

28/10/2018 – 02/11/2018 – 2018 AIChE Annual Meeting, Pittsburgh, PA, USA
Thermo-Responsive Ionic Liquids with LCST-Type Phase Transition Property As Draw Solutes in Forward Osmosis for Seawater Desalination

Poster presentation

25/04/2018 – 27/04/2018 – KICHE 2018, Changuwon, South Korea
Cyclodextrin complexed Poly (ionic liquid) with pseudo-LCST property as draw solutes in forward osmosis

Poster presentation

24/10/2018 – 26/10/2018 – KICHE Fall 2018, BEXCO, South Korea
Phosphonium and ammonium-based ionic liquids with a thermoresponsive LCST-type phase transitions as draw solutes in forward osmosis for seawater desalination

18/05/2017 – 19/05/2017 – Korea Membrane Society (KMS) , Seoul, South Korea
Systematic investigation of ionic liquids as effective draw solutes for forward osmosis

Oral presentation

KIChE spring meeting, Jeju Island, South Korea
Evaluation on effect of anions of 1-butyl-3-methylimadazolium-based ionic liquids as draw solutes for forward osmosis

Poster presentation

29/10/2017 – 03/11/2017 – AIChE 2017, Minneapolis, USA
A Systematic investigation of ionic liquids as effective draw solutes for forward osmosis

Poster presentation

08/04/2021 – 10/04/2021 – 2021 Spring meeting of Korean Electrochemical Society conference, BEXCO, Busan
Selective Recovery of Lithium Ion from Aqueous Sources via a Three electrode Electrochemical system

Poster presentation

20/04/2021 – 23/04/2021 – KICHE, BEXCO, Busan
**A new class of highly effective and energy-efficient thermo-responsive supramolecular host-guest complex of methylated
-cyclodextrin with polymerized ionic liquid ([vbim]TFSI)n draw solutes in forward osmosis**

Oral presentation

REFERENCE

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