



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE \_\_\_ 5953 \_\_\_\_\_

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di** Physics Department of the University of Milan, Italy  
Scientist- in - charge: Jemal Yimer Damte

[Name and surname]

## CURRICULUM VITAE

### PERSONAL INFORMATION

|         |             |
|---------|-------------|
| Surname | Damte       |
| Name    | Jemal Yimer |

### PRESENT OCCUPATION

|                        |  |
|------------------------|--|
| Appointment            | Structure  |
| April 2022-Dec.31/2023 | Czech Technical University in Prague (Postdoctoral researcher) |

### EDUCATION AND TRAINING

| Degree                            | Course of studies       | University   | year of achievement of the degree |
|-----------------------------------|-------------------------|--|-----------------------------------|
| Degree                            | Chemistry               | Dilla University                                     | 2010                              |
| Specialization                    | Physical Chemistry      | Haramaya University                                  | 2014                              |
| PhD                               | Computational Chemistry | National Taiwan University of Science and Technology | 2019                              |
| Master                            | Physical Chemistry      | Haramaya University                                  | 2014                              |
| Degree of medical specialization  |                         |  |                                   |
| Degree of European specialization |                         |  |                                   |
| Other                             |                         |  |                                   |



## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

| Date registration | of Association   | City        |
|-------------------|--|-------------|
| 05/12/2015        | Chemical Society of Ethiopia                                     | Addis Ababa |
| 01/12/2012        | Africa Material Research Society and Royal society of chemistry. | Addis Ababa |
| 04/01/2013        | Research and Community Service                                   | Jigjiga     |

## FOREIGN LANGUAGES

| Languages | level of knowledge |
|-----------|--------------------|
| English   | Advanced           |

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

| Year | Description of award  |
|------|---|
| 2015 | PhD Scholarship in National Taiwan University of Science and Technology, Taiwan |
| 2022 | Postdoctoral scholarship in Czech Technical University in prague                |
|      |   |

## TRAINING OR RESEARCH ACTIVITY

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|--|
| <p>description of activity</p> <p>I have a strong background in computational chemistry and materials science, particularly in the field of surface reactions. I have experience with software like VASP, SIESTA, and ABINIT that are valuable for conducting density functional theory (DFT) studies and understanding the behavior of materials at the atomic and molecular level.</p> <p>I am currently doing research on photo-triboelectric energy generators at Czech Technical University. It's an area with potential for innovative energy harvesting and conversion technologies</p> |
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## PROJECT ACTIVITY

| Year | Project  |
|------|--|
| 2015 | Activation of methane and conver to different value added products |
| 2022 | Triboelectric nanogenerators for energy production                 |

## PATENTS

| Patent |
|--------|
|        |
|        |



## CONGRESSES AND SEMINARS

| Date               | Title  | Place                          |
|--------------------|--|--------------------------------|
| November 1-4, 2017 | <ul style="list-style-type: none"><li>The 2017 International Conference on Functional Carbons (ICFC) on</li></ul>                    | Taipei, Taiwan                 |
| December, 2013.    | <ul style="list-style-type: none"><li>The 7<sup>th</sup> International Conference on the Africa material Research Society,</li></ul> | Africa union hall, Addis Ababa |
| June 27-30, 2016,  | <ul style="list-style-type: none"><li>International Symposium on Catalytic Conversions of Biomass</li></ul>                          | Taipei, Taiwan.                |
| October 30-31 2023 | <ul style="list-style-type: none"><li>The 7th Users' Conference of IT4Innovations</li></ul>  | Ostrava, Czech republic        |

## PUBLICATIONS

| Books                                      |
|--|
| [title, place, publishing house, year ...] |
| [title, place, publishing house, year ...] |
| [title, place, publishing house, year ...] |

| Articles in reviews   |
|---|
| 1. Methanol decomposition reactions over a boron-doped graphene supported Ru-Pt catalyst, Published to the journal of Royal Society of Chemistry (RSC) Physical Chemistry Chemical Physics, March 14, 2018. |
| 2. B, N- Co-doped Graphene Supported Ir and Pt clusters for methane activation and C-C coupling: A DFT Study. Published to the journal of computational chemistry, October 16, 2019                         |
| 3. Kinetics and Equilibrium Study of Adsorption of Phenol Red on Teff(EragrosticsTeff) Husk Activated Carbon, International Journal of Innovation andScientific Research, November, 2014.                   |
| 4. Physico-chemical analysis of drinking water quality at Jigjiga City, Ethiopia, American Journal of Environmental Protection, January, 2015   |
| 5. Photo-triboelectric Nanogenerator for green energy production using SIESTA package: submitted to nano energy (elsevier)  |
| 6. First Principle Studies of Direct Conversion of Methane to Ethane By means of Non-oxidative Coupling Methods on B, N Co-doped Graphene Surface Decorated by Ir <sub>13</sub> Cluster: submitted          |



to journal of Physical Chemistry Chemical Physics,

7. Partial Oxidation of Methane to Methanol and Formaldehyde on B, N Co- doped Graphene Surface Decorated by Oxygen Pre-covered Ir<sub>13</sub> Cluster: A First Principle Study: submitted to journal of computational chemistry

8. Photo-triboelectric Nanogenerator for gas sensing application

Congress proceedings

OTHER INFORMATION

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Czech Technical University in Prague, 08/11/2023