

Curriculum Vitae

Personal Information:

Name- **Dr. Biswanath Das**

Current Employment: Permanent researcher at Stockholm University (Department of Chemistry)

Current workplace Address: Stockholm University, SE 10691, Sweden

Languages: English (reading, writing, and speaking), Bengali (reading, writing, and speaking), Hindi (reading and speaking), Swedish (basic level, completed SFI national test)

With over nine years of experience managing multiple interdisciplinary projects in **carbon capture and conversion, green hydrogen production, and PFAS remediation**. Expertise in the synthesis of organic-inorganic catalyst materials, electrocatalysis, electrode (anode and cathode) design, and a wide range of analytical techniques, including ESI-MS, FTIR, NMR, UV-Vis, and GC-MS, for catalysis and product quality analysis. Strong interest in public speaking, collaboration, networking, and tackling new challenges.

Previous Employments:

Organic Chemistry Department, Stockholm University

06/2020–06/2022

Post-doctoral Researcher position

Water splitting and electrolysis towards sustainable and green hydrogen

This position involves co-mentoring one postdoctoral researcher.

Supervisor: Prof. Em. Björn Åkermark

UNSW School of Chemistry, Australia

02/2019 – 05/2020

Post-Doctoral Research Associate position

Homogeneous–Heterogeneous CO₂ reduction, Hydride–dihydrogen complexes, C-F & C-H bonds activation

This position involves co-mentoring of one honors student and one Ph.D. student.

Supervisor: A/Prof. Graham E Ball & Prof. Naresh Kumar

UNSW School of Chemistry, Australia

06/2016 – 12/2018

Post-Doctoral position

Homogeneous CO₂ reduction & Water oxidation

This position involved co-mentoring of one honors student and four Ph.D. students.

Supervisor: A/Prof. Stephen B. Colbran

Uppsala University, Sweden

01/2014 – 05/2016

Post-Doctoral position

Homogeneous Water oxidation

This position involved co-mentoring of two master's students.

Supervisors: Prof. Sascha Ott and Dr. Anders Thapper

Higher education degrees:

Doctoral Studies (PhD)

09/2009 – 02/2014

Lund University, Sweden

Hydrolytic and oxidative catalytic activities of bio-inspired di-nuclear metal complexes

Supervisor: Prof. Ebbe Nordlander

Master's Degree in Chemistry

08/2007 – 08/2009

Indian Institute of Technology (IIT), Kanpur, India

Synthesis, structure and photo-physical properties of phosphorus-supported fluorescent probes

Project Supervisor: Prof. Vadapalli Chandrasekhar

Experienced in:

Water splitting & CO₂ reduction

Molecular catalysts, Electrode design

PFAS removal techniques

C-H bond activation / Alkenes oxidation

Organic and inorganic synthesis

Electrochemistry and catalysis

DFT calculation on small molecules

Spectroscopic analysis and mechanistic investigation

Overview of publications record:

Total number of publications

42

International patent

2

First author publications

20

Corresponding author publications

17

Total number of citations

> 1025 (Google Scholar, Sep 2025)

H – index/i10 – index

18/25 (Google scholar)

Complete list:

<https://scholar.google.com.au/citations?user=xl8i7FgAAAAAJ&hl=en&authuser=1>

Applicant/Co-applicant in successful grant applications:

(i) **Futura foundations** (2023-2028) (as the Project leader) at Stockholm University (3,075 KSEK)

(ii) **Vinnova ‘impact innovation grant’** (2024-2026) as the Project leader at CarbGen AB (Ref no. 2024-02976 & 2025-01197) [790K SEK (2024) + 1,950 KSEK (2025)]

(iii) **Knut and Alice Wallenberg ‘Proof of Concept’** grant (2025-2027) (Co-applicant; Project leader Asst. Prof. Erica Zeglio) (3,400 KSEK)

(iv) **ÅForsk foundations** (2021-2023) at KTH and Stockholm University (Co-applicant; Project leader Prof. Joydeep Dutta and Prof. Björn Åkermark) (999.22 KSEK)

(v) **Futura foundations** (2020-2023) at Stockholm University (Co-applicant; Project leader Prof. Björn Åkermark) (2,830 KSEK)

(vi) **MWAC Grant: SC-XRD Detector Upgrade (RG163130)** (2017-2020) at UNSW, Sydney (Co-applicant; Project leader Dr. Christopher Marjo and team) (250 KAUD)

Invited talks, oral presentations, & awards:

Invited talks – CAP-CCU 2025 (Uppsala, Sweden), ICOMC 2024 (Agra, India), Macquarie University, 2019 (Sydney, Australia); IPRI 2018 (Wollongong, Australia);

Oral presentations –SCS 2025 (Västerås, Sweden); GREN2023 (Dresden, Germany); ISHHC 2018 (Sydney, Australia); ICCS 2018 (Sendai, Japan); Swedish CAP meeting 2014 (Uppsala, Sweden), 2015 (Stockholm, Sweden); IRTG Biometals 2011 (Goslar, Germany)

Member of the Swedish Chemical Society since 2024

Chartered Member of RACI (Royal Australian Chemical Institute) (2019-2021) (Membership No. 59220)

Selected on **IVA’s 100-list 2023** (Swedish innovations with great potential)

Awarded *Junior Research Fellowship* (JRF), India (through the NET exam), in 2009

Awarded *Erasmus Mundus Ph.D. Fellowship*, Lund University, Sweden in 2009

Awarded a *post-doctoral fellowship* at Uppsala University, Sweden, in 2014

Awarded a *post-doctoral fellowship* (ARC funded) at the School of Chemistry, UNSW, Australia, in 2016

Cover-arts

Invited cover in *Account of Chemical Research* in 2021 (DOI: 10.1021/acs.accounts.1c00298)

Invited front-cover in *Dalton Transaction* (corresponding author) in 2019 (doi: 10.1039/C8DT04858D)

Invited Inside Cover in *Chemical Communications* in 2015 (doi:10.1039/C5CC04148A)

Teaching:

Organic Chemistry – Reactivity and Structure KO5001 (from 2022) (as a lecturer) at SU
Organic Chemistry – Basic Principles KO2003 (from 2023) (as a lecturer) at SU
Sustainable Organic Chemistry II KO8015 (from 2024-course development) (as a lecturer) at SU
VT2025: Frontiers in Organic Chemistry, PhD course (as a lecturer) at SU
Coordination Chemistry KEMM22 (2010-2014) (as lab instructor) at Lund University
Supervising bachelor, master, PhD students, and postdoctoral candidates (from 2016, in Australia & Sweden)

List of supervised/co-supervised students:

- (i) Pavlina Karapapa (Master project, main supervisor, 2025-2026) at SU
- (ii) Victor Liebgott (Master project, main supervisor, 2024-2025) at SU
- (iii) Pamela Bengtsson (Ph.D. student under Prof. Belén Martín-Matute, Co-supervising, 2023-2026) at SU
- (iv) Noor Nawaf (Bachelor project, main supervisor, 2024-2025) at SU
- (v) Rima Hindy and Helen Hagos (Bachelor project, main supervisor, 2022-2023) at SU
- (vi) Jamal El-Abid (Post-doctoral candidate, Co-supervisor, 2023-2024) at SU
- (vii) Maryam Mirabediny (Ph.D. student under Prof. Naresh Kumar, 2020-2024, ongoing), UNSW, Australia
- (viii) Jun Sun (Ph.D. student under Prof. Naresh Kumar, 2019-2023, ongoing), UNSW, Australia
- (ix) Dejan Mizdrak (Master's project student under Prof. Graham E Ball, 2019), UNSW, Australia
- (x) Gabriella Chalmers (Master's project student under Prof. Stephen B Colbran, 2018-2019), UNSW
- (xi) Lida Ezzedinloo (Ph.D. student under Prof. Stephen B Colbran, 2016-2020), UNSW, Australia
- (xii) Michael Marquardt (Master's project student 2015-2016), Uppsala University, Sweden
- (xiii) Ricardo Fernandez (Master's project student, 2014-2015), Uppsala University, Sweden

Reviewed articles for:

- (i) JACS, (ii) Nature Communications; (iii) Environmental Science & Technology; (iv) ChemCatChem; (v) Chemistry- A European Journal; (vi) Dalton Transactions.

References:

Prof. Em. Björn Åkermark, Department of Chemistry, Stockholm University, Stockholm 10691, Sweden.

Email: Bjorn.Akermark@su.se

Prof. Belén Martín-Matute, Department of Chemistry, Stockholm University, Stockholm 10691, Sweden.

Email: belen.martin.matute@su.se

Prof. Sascha Ott, Department of Chemistry-Ångström Laboratory, Uppsala University, P.O.Box 523, 75120 Uppsala, Sweden. E-mail: sascha.ott@kemi.uu.se

Prof. Naresh Kumar, School of Chemistry, UNSW, Sydney, Australia. E-mail: n.kumar@unsw.edu.au

Prof. Ebbe Nordlander, Chemical Physics Department; Kemicentrum; Getingevägen 60, Lund S-22241, Sweden. Email: ebbe.nordlander@chemphys.lu.se

A/Prof. Anders Thapper, Department of Chemistry-Ångström Laboratory, Uppsala University, P.O.Box 523, 75120 Uppsala, Sweden. E-mail: anders.thapper@kemi.uu.se

A/Prof. Graham Ball, School of Chemistry, UNSW, Sydney, Australia. E-mail: G.Ball@unsw.edu.au

A/Prof. Stephen B Colbran, School of Chemistry, UNSW, Sydney, Australia. E-mail: s.colbran@unsw.edu.au