

ISMET news

Quarterly newsletter

No. 7 – Apr 2015

A paradox of publishing?!

We can now fully cite a publication in the June issue of a journal that will appear in the December issue of another journal.

Dear **ISMET news** readers,

The year almost just started, but some journals already published their autumn issues. Consequently, if you have not submitted there yet, you will have no chance to increase your number of papers in this journal for 2015. The publisher motivation seems clear to me: improving the impact factor. The earlier the issue is finished (and appears in a data base), the earlier a paper can be cited, leading to an increased number of citations in a certain year and hence the impact factor. Interestingly, you can now fully cite (more easily) a publication in the June issue of a journal that appeared (or will appear?) in the December issue of another journal. This paradox in time seems like an interesting question for futurologists, but it is our reality.

While overtaking ourselves on the publishing lane, time is more precious than ever. Among others I fear that highly valuable and important contributions to the scientific community like peer-reviewing and thorough reading of articles of your fellows do often not gain the time and attention they deserve. So, how to discriminate between useful and only superficial studies? How to extract trustable information from all the data available? As you certainly know some attempts to define standards are also discussed in our community.

On the other side, in addition to the “classical” papers, books, book chapters and conference contributions and the almost “classical” webpage further and faster ways for disseminating science are becoming more and more important. As you will know there are a numbers of ISMET members being active on writing blogs or tweeting the latest news and findings. Yet, not only the written word, but also video streaming, video lecturing and video articles are on their upswing.

The ISMET is up with these trends as well. In addition to reading the *ISMET News* you can follow our society on twitter (@ISMETSociety) and find access to some of the recent video articles of ISMET researchers in the members section of our webpage.

Please enjoy the 7th issue of the *ISMET News*, including articles on our upcoming societal activities in the AP region and the deadlines for the ISMET 5 in Arizona



Falk Harnisch,
Editor



abstract submission deadline: may 15, 2015
registration opens: april 1, 2015

<http://www.ismet2015.org>

the 5th international meeting on microbial electrochemistry and technologies

october 1-4, 2015 | arizona state university | tempe, arizona, us

Welcome to the AP Corner!

This article is the first of a continuing series that will feature ISMET-related research and activities in the Asia-Pacific (AP).

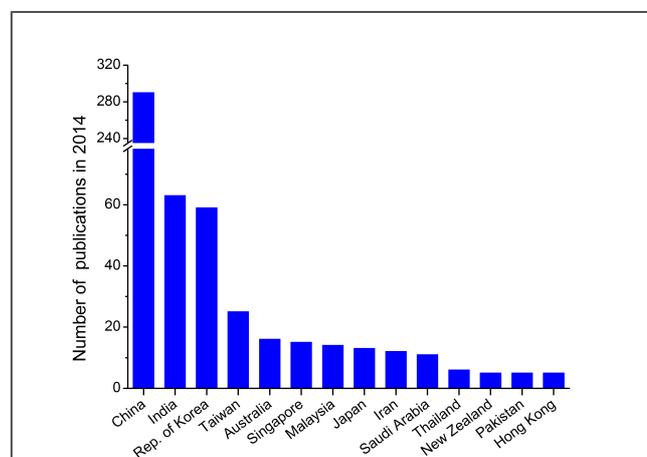
Asia-Pacific is a vast and very diverse region which spans from the Pacific islands to the Middle East. A quick search for publications reveals that the researchers of most of the countries in this immense region share a common interest: microbial electrochemistry! Here are some numbers to support this statement.

In 2014, the Asia-Pacific produced approximately 70% of all peer-reviewed publications in the area of microbial electrochemical science and technology (as retrieved from Scopus, see Figure). Thereby, about half of these come from China alone (290), with India (63) and South Korea (59) also quite strong in their yearly output (see Figure 1 for detailed breakdown per country). When normalising the number of papers to the total population, the AP produces currently approximately 0.12 publications in the field per million people, which is still lower than but approaching the value for North America (0.3 papers per million people). This is testament of the significant commitment that the region's largest countries have placed on our emerging field of Microbial Electrochemistry & Technology. These figures are now entirely comparable to the number of publications per capita for other well established fields, such as anaerobic digestion.

So, keep an eye on this space! The combination of microbiology and electrochemistry in AP may deliver discovery, innovation and impact in the near future.

In the next few *ISMET News*, the AP Corner will take you on a journey through the MET-related achievements and activities in specific AP countries, starting from the largest MET paper producing machine: China!

Stefano Freguia on behalf of the ISMET AP task force



2014 peer reviewed publications in the field of Microbial Electrochemical Technology per Asia-Pacific country, as retrieved from Scopus (only countries with >5 publications included).

1st prize of the Qatar Foundation Research Conference

Deepak Pant, Suman Bajracharya, Sandipam Srikanth, Gunda Mohanakrishna, Heleen De Wever, Karolien Vanbroekhoven and Ludo Diels were awarded the 1st prize for poster and flash presentation on microbial electrosynthesis at the Qatar Foundation Annual Research Conference 2014 (ARC'14) held last November in Doha, Qatar.

The work title was *Microbial and Enzymatic Electrosynthesis of Renewable Chemicals: A Case Study of Bioelectrochemical Conversion Of CO₂ to Chemicals* and was awarded in the Energy and Environment Research category.

The prize consisted of a certificate, a memento and 20,000 Qatari Riyal. For more information see: <http://www.qscience.com/doi/abs/10.5339/qfarc.2014.EEPP0363>



From the perspective of PhD-students: a penpalship story

The viewpoint of a (PhD) student or young Postdoc and senior scientist often differs. Despite that the latter also spent numerous days of his life at the bench, she / he often does not know where to look for a pipette or a pH-meter in the lab anymore.

The days are still full of science (and heaps of teaching and administration), but from a different perspective than for a (PhD) student. So big problems or great success for one may be only a short note for the other (and vice versa). Thus, this article series aims on providing the (PhD) students' perspective to the *ISMET News*. Therefore, three PhD-students will have a continuative penpalship (yet, this is very old-school nowadays). In this *ISMET News*, they will introduce themselves and will continue sharing with you parts of their (academic) lives in the next issues. I am looking forward to this kind of experiment.

Falk Harnisch

February 2015

Dear Suresh and Suman

Hi! I am Germán and I am finishing my PhD in Juan Pablo Busalmen's group in INTEMA-CONICET institute (Argentina). I had filed my thesis last December and I am going to defend it in March. I will continue my postdoctoral training in the same institute. My thesis is related to electron transport and physiology in *Geobacter sulfurreducens* biofilms. So, I think it could be interesting to talk with the other two fellows about what we think would be the next steps in our respective fields. From my point of view, it is increasingly difficult to follow the huge amount of publications in the applied field. I am usually aware of the great topics and congresses, like the last one in Alcalá de Henares, which are very useful to get a general idea of the recent and main advances. So, as far as I am concerned, it would be very interesting to read your opinion about what is coming and what is needed. Furthermore, it could be interesting to exchange lab and PhD experiences.

Yours,

Germán

Early March 2015

Dear Germán and Suresh,

I am Suman Bajracharya doing my PhD research on Microbial Electrosynthesis for CO₂ reduction at VITO, Belgium under the supervision of Dr. Deepak Pant. I am a PhD student in environmental technology department of Wageningen University, The Netherlands, under the promotorship of Prof. Dr. Cees Buisman. Dr. David Strik and Dr. Annemiek ter Heijne



Germán Schrott.

are my immediate supervisors there. I have already met Suresh in VITO last year.

Application of microbial electrochemical technology fascinates a PhD researcher like me as it is an emerging and covers multiple disciplines. In that sense, I am always enthusiastic about what next and what is the latest development in this field. I do agree that the number of publications in the field is skyrocketing in the recent years. Alert emails from 'Google Alert' regularly fill up my inbox, but so far keep track of the publications with specific keyword and from the renowned researchers / groups in the field. Indeed, attending the conferences like ISMET and EU-ISMET keep us updated about the latest development in the field. A common discussion forum for the researchers from around the world is a great platform for updates; views and information sharing in a short duration. I believe this penpalship also acts as such platform.

I am interested in updates, sharing and discussion on the views, methods, problems and practicalities of the research especially on bioanodes, biocathodes and electron transfer mechanisms. In addition, I am interested to share and interact about PhD and after PhD experiences.

Best wishes,

Suman

Late March 2015

Dear Suman and Germán,

I am Suresh Babu Pasupuleti doing my PhD as senior research fellow, in Dr. S. Venkata Mohan's research

group, at CSIR-Indian Institute of Chemical Technology (CSIR-IICT), India on "Bioenergy generation from waste/wastewater treatment". I have already met Suman in Dr. Deepak Pant's research group during my visit to VITO, Belgium. My love for renewable energy, especially from waste/wastewater was developed while I was pursuing my graduation in Chemical Engineering and has stayed with me since then. This interest was further strengthened with my Masters studies in Industrial Pollution Control.



Suman Bajracharya.

Through Environmental Engineering, I would like to address the complex challenge of energy crisis by developing state-of-the-art technologies for waste/wastewater treatment in developed/developing countries. The thought that I can be a part of the solution to this problem also motivated me to pursue doctoral studies in this area.

As a Chemical and Environmental Engineer, I am working on scaling up green energy technologies. I also agree that there is an increasing difficulty in following the huge number publications in this field. I follow the eminent researchers in Google Scholar, Research gate and Scopus alerts in order to keep

track of the latest works being published around the globe in areas relevant to my research. Attending international conferences like The Biotech Research Society of India (BRSI), ISMET also helps developing new ideas in the field. Also, being a part of a very big research group (We are



Suresh Babu Pasupuleti.

a group of 17!) gives me an advantage of discussing work with my fellow researchers and also exchange ideas. Regular shares of recently published article from the supervisor. These discussions also results with conclusions like where we are and what have to do in the current and future research platform. These are also very helpful in keeping track of outstanding publications. Along with Suman, I am also interested in updates, sharing and discussion on the views, methods, problems and practicalities of the research especially on biohydrogen, biohythane, bioanodes and biocathodes, electron transfer mechanism etc. In the wide spectrum of research field, networking of research and exchange at global level would be beneficial. Wherein every country, developed or developing, will contribute to a central research infrastructure and training, specially including techniques and skills, and increase our knowledge in the relevant field of research.

Best wishes,
Suresh.

Announcing the ISMET abstract awards!

ISMET 2015 abstract submission is now open (<http://www.ismet2015.org/abstracts.html>). The abstracts will be evaluated by the International Scientific Committee.

The 10 best-scored abstracts in which the main presenter is a graduate student or a postdoctoral researcher will be selected as ISMET abstract awardees. The awardees will have free registration to ISMET 2015 and an hotel room (Marriott Courtyard, Tempe) from Oct 1st - 4th, 2015 (3 nights).

Please remember you must be an ISMET member to be considered for an ISMET abstract award.

Microbial Fuel Cell session at the EFC15

The European Fuel Cell Conference & Exhibition that will be held in Naples (Italy) on December dedicates a special session to Microbial Fuel Cell.

Further details at <http://www.europeanfuelcell.it>



Job opportunities

PostDoc or research associate position at the University of Freiburg, Germany

The Department of Microsystems Engineering at the University of Freiburg (Germany) opens a PostDoc or research associate position in a project which goals the development of a microbial fuel cell that is simultaneously used for micro- or ultrafiltration for wastewater treatment. As part of the project team you will be responsible for the identification and the development of conductive filter materials that shall be characterized with respect to their electrochemical and filtration properties.

For further inquiries please contact Dr. Sven Kerzenmacher, telephone: +49-761-203-73218 e-mail: kerzenma@imtek.de

Staff Scientist (Bioelectrochemical Systems) at the J. Craig Venter Institute, San Diego, USA

The J. Craig Venter Institute (JCVI), a not-for-profit research institute dedicated to the advancement of science is seeking a Staff Scientist to join the Bretschger Lab at our San Diego office. The Staff Scientist will primarily be responsible for studying the enrichment and dynamic function of bioelectrochemically active microbes found in natural and engineered environments. Applicants who do not have direct experience with bioelectrochemical systems will not be considered. Successful candidates will hold a PhD in Biotechnology, Bioengineering, Chemical Engineering, Environmental Science, Environmental Engineering or other relevant field and have at least 3 years of research experience outside of graduate school. The successful candidate must have a comprehensive understanding of bioelectrochemical systems, microbiology, microbial-surface interactions and extracellular electron transfer mechanisms. Familiarity with next-generation sequencing technologies and associated analyses is desired. Successful candidates must demonstrate excellent troubleshooting capabilities, outstanding organizational and time management skills, a high level of initiative, ability to work with minimum supervision, flexibility to handle a variety of tasks, and be able to shift priorities quickly. The successful candidate must also have very strong interpersonal and communication skills and the ability to effectively

interact with all levels of JCVI staff and external collaborators across multiple physical locations. A robust publication record is required.

For more information and to apply to this position, please visit our website at www.jcvi.org Equal Opportunity Employer M/F/D/V.

Postdoctoral and PhD Positions in Electrochemical Systems, NCSU, USA

Two Postdoctoral Researcher and two PhD positions are available in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University (NCSU) and the Department of Environmental Sciences and Engineering at the University of North Carolina at Chapel Hill (UNC-CH) as part of a state-funded, \$1 million collaborative project to optimize and assess the potential of electricity generation from salinity gradients along coastal North Carolina using reverse electrodialysis (RED). They will focus on optimization of RED systems, including (but not limited to) electrode, membrane, stack, and process optimization.

Preferred candidates should have degrees in environmental engineering, chemical engineering, materials science, chemistry, electrochemistry or related areas. Experience in electrode or ion-exchange membrane development and/or computational fluid dynamic modeling is desirable but not required. Excellent English writing and oral communication skills are required along with demonstrated success in publishing. The positions are available effective July 1, 2015. Postdoc appointments are initially for one year with the possibility of re-appointment on an annual basis depending on performance.

Applicants interested in these positions should follow this link [<http://goo.gl/forms/5v7k668BRi>] to an online questionnaire. The candidates that best match the open positions will be invited to formally apply. Review of the questionnaire responses will begin immediately and continue until the positions are filled. Questions should be directed to Dr. Douglas Call [email: dfcall@ncsu.edu] and Dr. Orlando Coronell [email: coronell@unc.edu]

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