



Open access

Blogging

Social media

Online outreach

Open access

Open access: Why, oh why?!?



“Knowledge should be available worldwide, not hidden behind paywalls”

- Especially true for public-funded research
- Especially true for poor countries
- Especially true for the authors

Open access: How?

1

What are my rights?

2

What are my duties?

3

Should I take a proactive stand on OA?

4

Should I pay with my pocket money?

Open access: How?

1

What are my rights?



Journal:	Applied Catalysis A: General (ISSN: 0926-860X)
RoMEO:	This is a <u>RoMEO green</u> journal
Paid OA:	A paid open access option is available for this journal.
Author's Pre-print:	✓ author can archive <u>pre-print</u> (ie pre-refereeing)
Author's Post-print:	✓ author can archive <u>post-print</u> (ie final draft post-refereeing)
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General Conditions:	<ul style="list-style-type: none">• Authors pre-print on any website, including arXiv and RePEC• Author's post-print on author's personal website immediately• Author's post-print on open access repository after an embargo period of between 12 months and 48 months• Permitted deposit due to Funding Body, Institutional and Governmental policy or mandate, may be required to comply with embargo periods of 12 months to 48 months• Author's post-print may be used to update arXiv and RepEC• Publisher's version/PDF cannot be used• Must link to publisher version with DOI• Author's post-print must be released with a Creative Commons Attribution Non-Commercial No Derivatives License

Green Open Access

Open access: How?

1

What are my rights?



Damien Debecker

@deuxbeck

My first experience with @Preprints_org:
"Biocatalytic Transamination in Continuous
mode" preprints.org/manuscript/2017010053
[#preprints](#) [#openaccess](#)

RETWEETS
3

LIKES
6



10:45 AM - 11 Jan 2017

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preprints.org > chemistry > chemical engineering > doi: 10.20944/preprints201701.0053.v1

Preprint Article Version 1 NOT YET PEER-REVIEWED

Enantioselective Transamination in Continuous Flow Mode with Transaminase Immobilized in a Macrocellular Silica Monolith

Ludivine van den Biggelaar¹, Patrice Soumillion², Damien P. Debecker^{1,*}

¹ Institute of Condensed Matter and Nanosciences, Université catholique de Louvain, 1348 Louvain-la-Neuve, Belgium
² Institute of Life Sciences, Université catholique de Louvain, 1348 Louvain-la-Neuve, Belgium

Version 1 : Received: 10 January 2017 / Approved: 11 January 2017 / Online: 11 January 2017 (04:48:02 CET)

How to cite: van den Biggelaar, L.; Soumillion, P.; Debecker, D. Enantioselective Transamination in Continuous Flow Mode with Transaminase Immobilized in a Macrocellular Silica Monolith. *Preprints* **2017**, 2017010053 (doi: 10.20944/preprints201701.0053.v1). [Copy](#)

Abstract

ω -Transaminases have been immobilized on macrocellular silica monoliths and used as heterogeneous biocatalysts in a continuous flow mode enantioselective transamination reaction. The support was prepared by a sol-gel method based on emulsion-templating. The enzyme was immobilized on the structured silica monoliths both by adsorption, and by covalent grafting using amino-functionalized silica monoliths and glutaraldehyde as a coupling agent. A simple reactor set-up based on the use of a heat-shrinkable Teflon tube is presented and successfully used for the continuous flow kinetic resolution of a chiral amine, 4-bromo- α -methylbenzylamine. The porous structure of the supports ensures effective mass transfer and the reactor works in the plug flow regime without preferential flow paths. When immobilized in the monolith and used in the flow reactor, transaminases retain their activity and their enantioselectivity. The solid biocatalyst is also shown to be stable both on stream and during storage. These essential features pave the way to the successful development of an environmentally friendly process for chiral amines production.

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BibSonomy

“A preprint is a version of a scholarly or scientific paper that precedes publication in a peer-reviewed scholarly or scientific journal. The preprint may persist, often as a non-typeset version available free, after a paper is published in a journal,”

Open access: How?

1

What are my rights?

2

What are my duties?



À partir du 1er janvier 2013, l'enregistrement des données bibliographiques et le dépôt en texte intégral des publications est **obligatoire** (l'obligation de dépôt en texte intégral ne concerne que les publications produites à partir de 2013).

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- Accès interdit
- Accès restreint à l'institution
- Accès libre
- Accès interdit jusqu'au... (embargo) et ensuite : accès libre ou restreint à l'UCL

Open access: How?

1

What are my rights?

2

What are my duties?

3

Should I take a proactive stand on OA?

- Enormous benefits for publishers with dubious justifications
- Quality control of OA journals (reputation)?
Beall's list (<https://scholarlyoa.com/publishers/>)!
- Cost transfer? Business model of OA?

Open access: How?

1

What are my rights?

2

What are my duties?

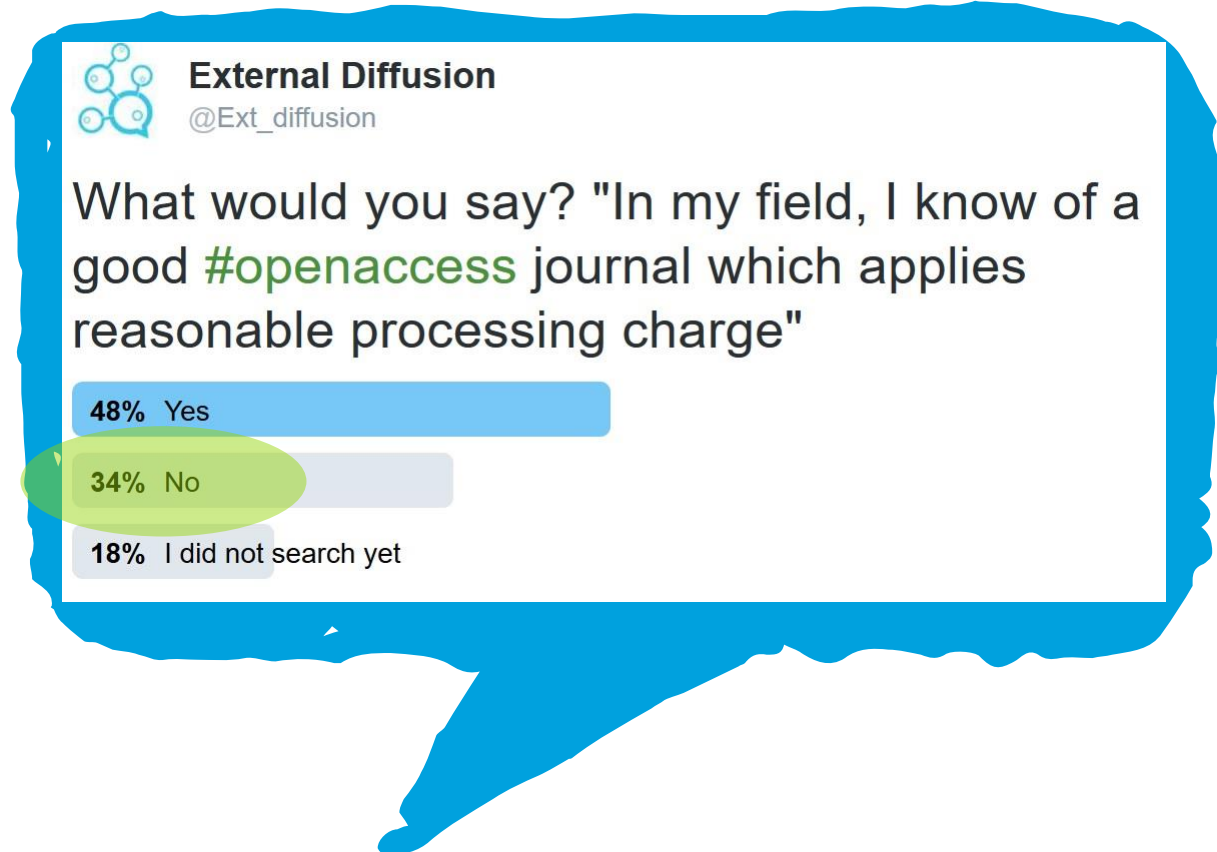
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Should I take a proactive stand?

4

Should I pay with my pocket money?

Open access: the price to pay

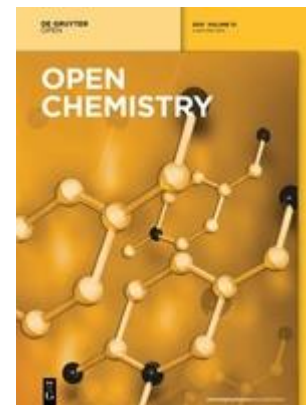


Open access: the price to pay

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Many thanks for considering Sustainable Chemical Processes for your research. We can agree to a discount of the article-processing charge.

This would mean that if your manuscript was accepted you would have to pay a GBP 584.00/USD 912.00/EUR 744.00 article-processing charge on this article. Since you are based in Belgium, you will be charged the price of EUR 744.00*.



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~2500 \$



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Free!

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Appl. Catal. A (Elsevier)



Wiley (3500 €),
Elsevier (2500 \$),
RSC (1600 £),
ACS (2000-4000 \$),...



Open access: resources



REVIEW

The academic, economic and societal impacts of Open Access: an evidence-based review [version 1; referees: 4 approved, 1 approved with reservations]

Jonathan P. Tennant¹, François Waldner², Damien C. Jacques², Paola Masuzzo^{3,4}, Lauren B. Collister⁵, Chris. H. J. Hartgerink⁶

¹Department of Earth Science and Engineering, Imperial College London, London, UK

²Earth and Life Institute, Université catholique de Louvain, Louvain-la-Neuve, Belgium

³Medical Biotechnology Center, VIB, Ghent, Belgium

⁴Department of Biochemistry, Ghent University, Ghent, Belgium

⁵University Library System, University of Pittsburgh, Pittsburgh, PA, USA

⁶Department of Methodology and Statistics, Tilburg University, Tilburg, Netherlands



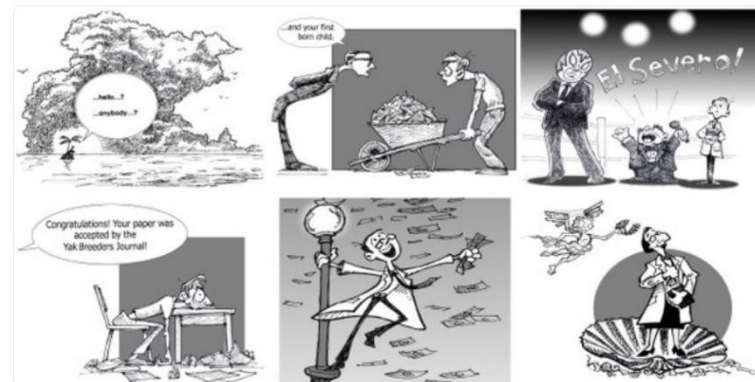
Why Open Research?

@whyopenresearch



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173

LIKES

98

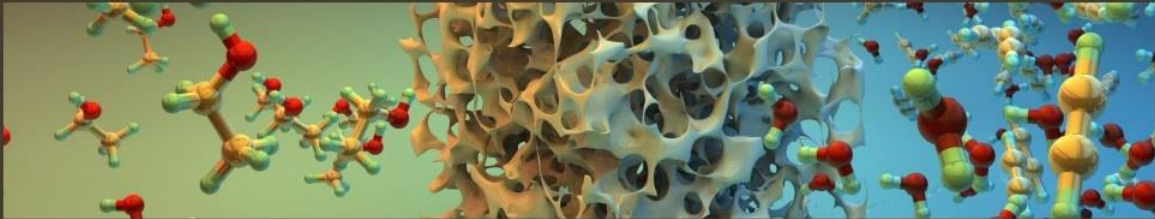


Blogging

Blogging: medium of expression

The paper is open for discussion

blog by Damien Debecker



[Home](#) [About the blog](#) [About the author](#) [Bibliography](#) [Links](#)

About the blog

I use this page to write all the things that do not fit in a [tweet](#) or in a scientific paper. Discussing recent results from us or from others, advertising interesting events, sharing comments and opinions (science, education, publishing, etc.).

"The paper is open for discussion" is a sentence often pronounced by the chairman after an oral communication at scientific conferences. As a non-native speaker, I was always surprised by the use of the word "paper" in this popular expression.

The sentence invites the audience to asking questions to the speaker. From that moment on, everything is possible for the 5-10 upcoming minutes. The session can rapidly turn into a wild and passionate debate between more or less civilized and more or less arrogant scientists. This is usually a good sign that the work presented is interesting, at least in the sense that it triggers some reaction from the community. The audience can also look down on their cell phones, leaving the speaker alone on stage, showing no interest for what has just been communicated. How cruel! I think these few seconds of hesitation between both scenarios are thrilling.

Don't forget, this blog is open for discussion too. Please leave comments 😊

You can follow this blog by clicking on the blue "Follow" button in the right side bar.

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Blogging: medium of expression

The paper is open for discussion

blog by Damien Debecker



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 TAGS


aerogel, aerosol, Catalysts, EISA, guest editor, heterogeneous catalysis, hybrid catalysts, MDPI, mixed oxides, monoliths, open access, openaccess, porous materials, sol-gel, xerogel

“Sol–Gel Chemistry: A Toolbox for Catalyst Preparation” – Call for paper

September 2, 2016

Acting as a guest editor of a **special issue** entitled “Sol–Gel Chemistry: A Toolbox for Catalyst Preparation”, to be published by the **open access journal “Catalysts”**, I invite you to consider submitting your latest work on the topic!

Sol–gel chemistry encompasses a wide range of chemical routes that allow producing tailored solid materials starting from molecular precursors. Specifically in the field of heterogeneous catalysts preparation, sol–gel methods permit the design of advanced catalytic formulations showing unique properties. Taking advantage of the controlled synthesis conditions in sol–gel methods, chemists develop catalytic materials which exhibit improved catalytic performance thanks to their advantageous textures, structures, compositions, homogeneity, surface functionality, etc. This field is evolving quickly as, for example, new processing modes, new molecular precursors or new templating agents are proposed.

 Following The paper is open for discussion

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“Sol–Gel Chemistry: A Toolbox for Catalyst Preparation” – Call for paper

Funded PhD student position available in the field of heterogeneous catalysis

Pour favoriser l'égalité homme/femme, chouchoutons les papas!

UCL : Université Humaniste de Louvain ?

Blogging: Why, oh why?!?

1 Story behind the paper

2 Science is multidisciplinary

3 Information overload

4 Ready-to-go science

5 Social-media compatible

Blogging: Why, oh why?!?

1

Story behind the paper

We were
pretty lucky
to...

It all started
when ...

The important
message is...

My role in this
work was...

This paper
was first
rejected...

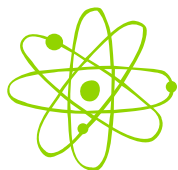
Blogging: Why, oh why?!?

1

Story behind the paper

2

Multidisciplinary



“A good blog post can be the catalyst to the birth of new ideas, collaborations, or projects. Blogs can be written in a specific and rigorous, yet accessible way, so that “non-specialist-scientists” can understand them and get inspiration for further work.”

Blogging: Why, oh why?!?

1 Story behind the paper

2 Multidisciplinary

3 Information overload

“If authors take the time to blog about their own paper then it must be one of their recent masterpieces!”


← Répondre → Transférer [x] Archiver [x] Indésirable [x] Supprimer [x] Autres ▾

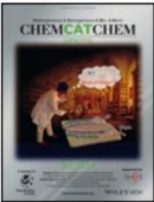
De ChemCatChem <WileyOnlineLibrary@wiley.com> ☆

Sujet **ChemCatChem Content Alert (New Articles)** 21-10-14 14:00

Pour Damien Debecker ☆

Heterogeneous & Homogeneous & Bio- & Nano-
CHEM**CATCH****CHEM**
CATALYSIS

 ChemPubSoc Europe

 **ChemCatChem**
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[Early View](#) (Online Version of Record published before inclusion in an issue)

THESE EARLY VIEW ARTICLES ARE NOW AVAILABLE ON [WILEY ONLINE LIBRARY](#)

Blogging: Why, oh why?!?

1

Story behind the paper

2

Multidisciplinary

3

Information overload

4

Ready-to-go science



“Good blog posts are those which remain scientifically correct but at the same time manage to step away from the austere canvas of classical scientific publications, thus further spawning curiosity.”

Blogging: Why, oh why?!?

1 Story behind the paper

2 Multidisciplinary

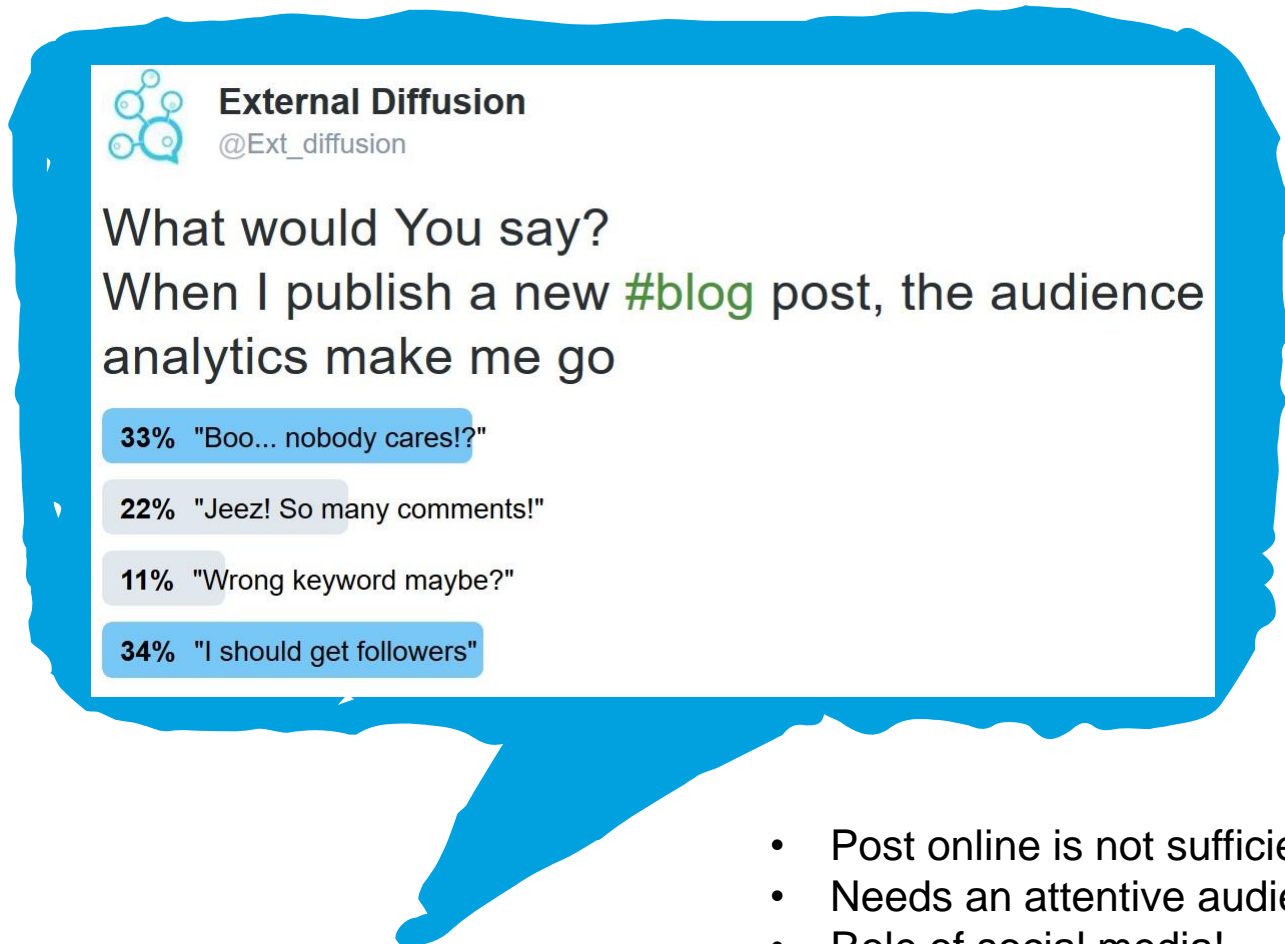
3 Information overload

4 Ready-to-go science

5 Social-media compatible

“Looking at a tweet or a Facebook post, you know instantly whether the blog post will be worth a read or not. “

Blogging: what is the impact?



Social media

Social media: “academic social media”

R^G HOME QUESTIONS JOBS 12 1 8 + Add new

Damien P. Debecker 34.03
Dr. ✎
Associate Professor ✎
Université catholique de Louva..., Louvain-la-Neuve · Instit... ✎

Add a new Article

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Your publications ✎ Edit list Sorted by: **Newest** **Publications · 50** 100% of RG SCORE

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- Article · 48
- Conference Paper



- Spamming! (everybody)
- Duplicates!
- Copyright compliant?
- Reliable forever?



- Interactive
- Searchable
- Networking

Social media: “academic social media”



Social media: Talking science on general social media



Mummy likes your new update!



Notifications

Prof. Famous retweeted your tweet



...

Social media: Audience for your science?



Followers = f(content, activity, following)
Use #hashtags!
Use lists (build, follow)!



Pro network only.
Participating in groups may be worthy.



Private mainly.
Pages and groups are a must.

-
- Use stats and metrics to know what works
 - Doing “outreach” is not “bragging”
 - “e-reputation”

Social media: Talking science on general social media

Damien Debecker (@deuxbeck)

Prof. & Researcher at [#UCLouvain](#).
[#Chemistry](#), solid (bio)catalysis for more
[#sustainable](#) chemical processes. Father of 1. Blogger. Co-founder [@ext_diffusion](#)

📍 Braine-l'Alleud, Belgique
🌐 [damiendebecker.com](#)
📅 Joined September 2011
🎂 Born on June 23, 1982

TWEETS 7,449 FOLLOWING 2,462 FOLLOWERS 2,599 LIKES 3,447 More ▾ Edit profile

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Damien Debecker @deuxbeck · 23 Apr 2016

Read my piece for [@BitesizeBio](#): "The Why & How of Promoting your Science Publication Online" [bitesizebio.com/27823/the-why- ...](#)

Social media: Talking science on general social media

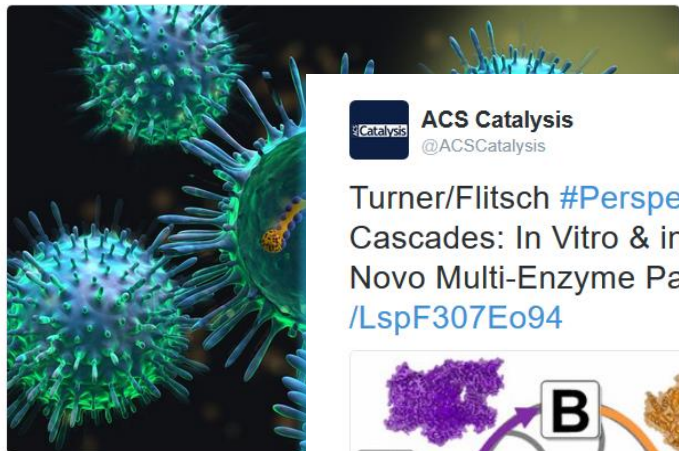


Ella Marushchenko

@Ella_Maru

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Human respiratory syncytial virus #sciart #virus



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2:40 PM - 13 Jan 2017

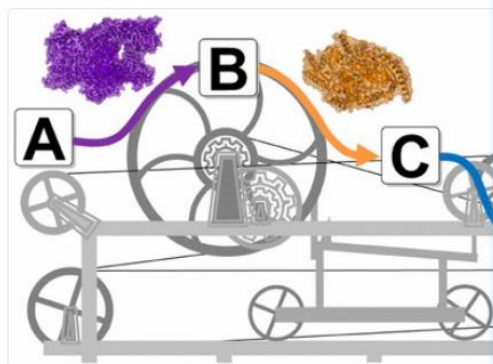


ACS Catalysis

@ACSCatalysis

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Turner/Flitsch #Perspective "Biocatalytic Cascades: In Vitro & in Vivo Approaches to de Novo Multi-Enzyme Pathways" [ov /LspF307Eo94](#)



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11:15 PM - 4 Jan 2017



LSE Impact Blog

@LSEImpactBlog

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Fundable, but not funded: how can research funders ensure "unlucky" applications are handled more appropriately?



Fundable, but not funded: How can research funders ensure 'unlucky' applic...

Having a funding application rejected does not necessarily mean the research is unsupportable by funders – maybe just unlucky. There is a significant risk to wider s... [blogs.lse.ac.uk](#)

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7:01 PM - 27 Jan 2017

Social media: Talking science on general social media

 **Damien Debecker**
@deuxbeck

Paper just accepted! Everything is not lost.
[#ecrchat](#)



RETWEETS 4 LIKES 22

12:16 PM - 25 Jan 2017

 **Sylvain Deville**
@DevilleSy

After 3 years, 1827 🍰, 732 tablets of 🍷, & an undisclosed amount of 🍷 & 🍷, my book is out!
! So ❄️ ! springer.com/us/book/978331...



RETWEETS 19 LIKES 119

9:42 AM - 24 Jan 2017

 **Achilleas Kostoulas**
@AchilleasK

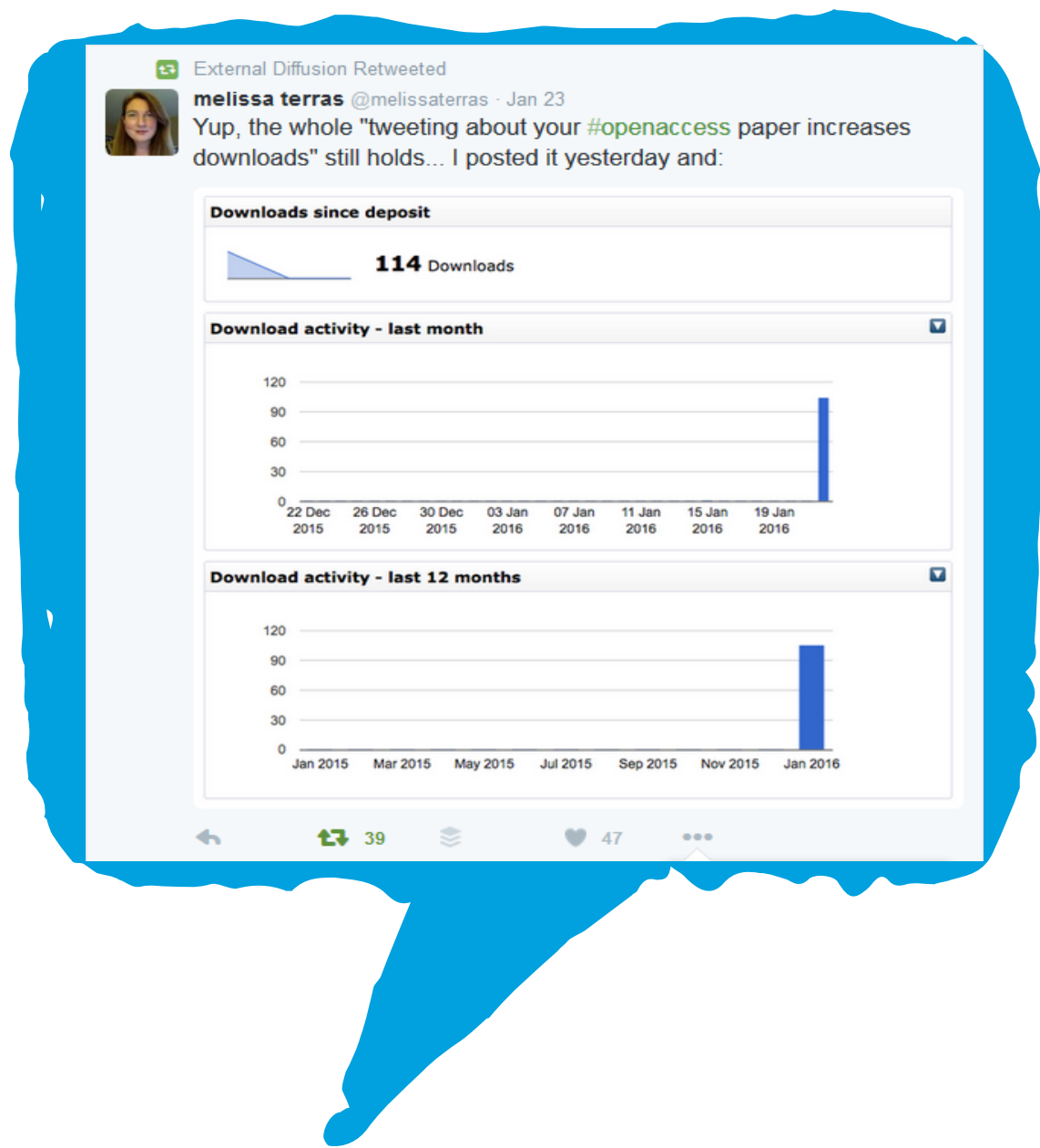
Wasting time, usually. But then again, I am not paid to generate impact on Sunday evenings.

External Diffusion @Ext_diffusion
#Researcher: Are you wasting time on #socialmedia or is it helping you achieve impact? | @fastrackimpact fastrackimpact.com/single-post/20...

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6:15 PM - 18 Dec 2016

Social media: Why, oh why?!?



Social media: What?

Interviews with some of the most brilliant minds in science.

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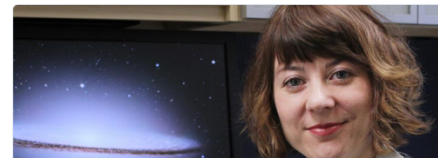
109 Followers you know

TWEETS 1,255 FOLLOWING 3,135 FOLLOWERS 4,997 LIKES 3,185 LISTS 7

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Tweets Tweets & replies Media

 **PeopleBehindScience** @PBtScience · Oct 13
Supermassive Black Holes, their signatures, and Dr. Tamara Bogdanovi peoplebehindthescience.com/dr-tamara-bogd... #science #scicomm #phdchat #space



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Social media: What?



En Direct du Labo
@EnDirectDuLabo FOLLOWS YOU

Pour la semaine du 10 octobre, Louis (@Luikki), prof à @UniTurku et pour 16/17 à l'uni. Helmut Schmidt, Hambourg. On parle hist des relations internationales.

📍 Nottingham, England
🔗 endirectdulabo.tumblr.com
📅 Joined April 2014

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TWEETS 31.4K FOLLOWING 205 FOLLOWERS 5,111 LIKES 3,480 LISTS 1

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 **En Direct du Labo** @EnDirectDuLabo · Oct 9

Coucou! Je m'appelle Louis Clerc (@Luikki), prof de contemporaine à @UniTurku et à la #HSU Hambourg. Cette semaine: l'atelier de l'historien

🔄 17 ❤️ 22 ⋮

 En Direct du Labo Retweeted

 **Alexis BRENON** @AlexisBRENON · Oct 18

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 **Nando de Freitas** @NandoDF [Follow](#)

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Social media: What?





I Am SciComm
@iamscicomm

@SciComm_Hub #rocur account. Each week a new #scicomm'er shares thoughts/experiences about sci education, outreach & comm. This week: @NounAndVerber

scicommhub.com/guest-twitter
Joined May 2015

TWEETS 15.5K FOLLOWING 1,456 FOLLOWERS 5,927 LIKES 5,632 LISTS 1

Tweets Tweets & replies Media

 Pinned Tweet

 **I Am SciComm** @iamscicomm · Aug 29

The schedule of #scicomm hosts for remainder of 2016 is full! See who's coming up next. (-AF) scicommhub.com/guest-twitter/

23

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Social media: Measuring social media attention



www.altmetric.com



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Online outreach



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Fast Track Impact
Training by researchers for researchers



And many more...

Online outreach

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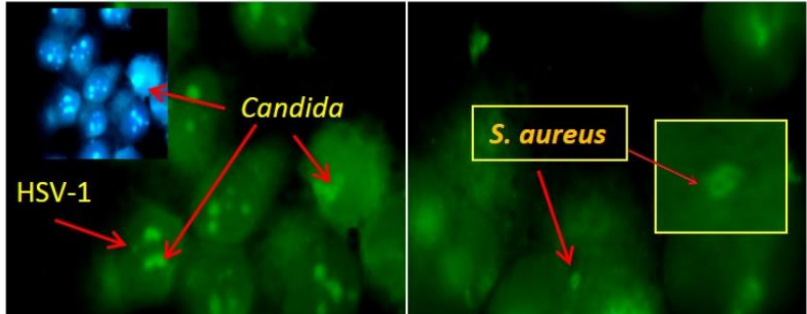
ATLAS of Science
another view on science

RESEARCH CONFERENCES & SYMPOSIUMS

May 29, 2016 | Research | No comments


Not in my neighborhood- herpes simplex virus control of microbiome locality


The players vary, but who is really controlling occupancy of the host mucosal surfaces? The host may no longer be the sole ruling factor controlling the receptor sites for attachment of microbes, and thus membership in the host microbiome. A fundamental paradigm has been that the host provided mucosal surfaces for the resident flora (microbiome). Under normal circumstances, these polymicrobial tenants are good neighbors by taking up available receptor sites that pathogens could utilize and eliciting a cross-protective immune response that provides natural immunity. They also pay their rent by providing the host with essential vitamins and other nutrients. In either case the host regulates the membership of the microbiome and the neighborhoods (geographic sites) that they may colonize. This paradigm that the host is the sole arbiter of microbiome residency may no longer hold. The study by Plotkin and Sgar, et al., shows that herpes simplex virus (HSV-1 and HSV-2) can, in part, control membership of the microbiome.





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
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November 24, 2015

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Lay summary ✓
Editorial input ✓
Upon invitation !!
Impact ??

Online outreach

Professor Damien P Debecker | Menu

Aluminosilicate foam monolith as new acidic catalyst

First acidic macro-mesocellular aluminosilicate monolithic foams "SiAl(HIPE)" and their catalytic properties

Damien P. Debecker, Cédric Boissière, Guillaume Laurent, Stéphanie Huet, Philippe Eliaers, Clément Sanchez, Rénal Backov

Published in: [Chemical Communications](#)
 Publication date: January 2015
 Publisher: Royal Society of Chemistry
 DOI: <http://dx.doi.org/10.1039/c5cc05328e>

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What's it about?

We describe a one-step method to prepare self-standing aluminosilicate monoliths with high acidic properties and appropriate texture. Such hierarchical material exhibits all the advantage of highly acidic mesoporous zeolite-like materials without the drawback linked to their usually powdery form.

Why is it important?

These materials are highly promising for flow applications – also with bulky molecules – in industrial heterogeneous catalysis in fields as diverse as bio-refineries, petro-chemistry, or organic synthesis.

Perspectives

Damien Debecker (Author)

Shaping of solid catalysts for large scale industrial applications in flow is a delicate, yet under-studied topic. It mostly remains in the (IP protected) expertise of industrial companies and is rather neglected by the academic world. In here we both (i) propose a realistic and practical solution for this challenging step, in the case of a relevant reaction and with relevant catalytic materials and (ii) we provide in-depth multi-scale understanding and description of the new material.

[Read Publication](#)

The following have contributed to this page: Professor Damien P Debecker

Damien — one more step for best results!
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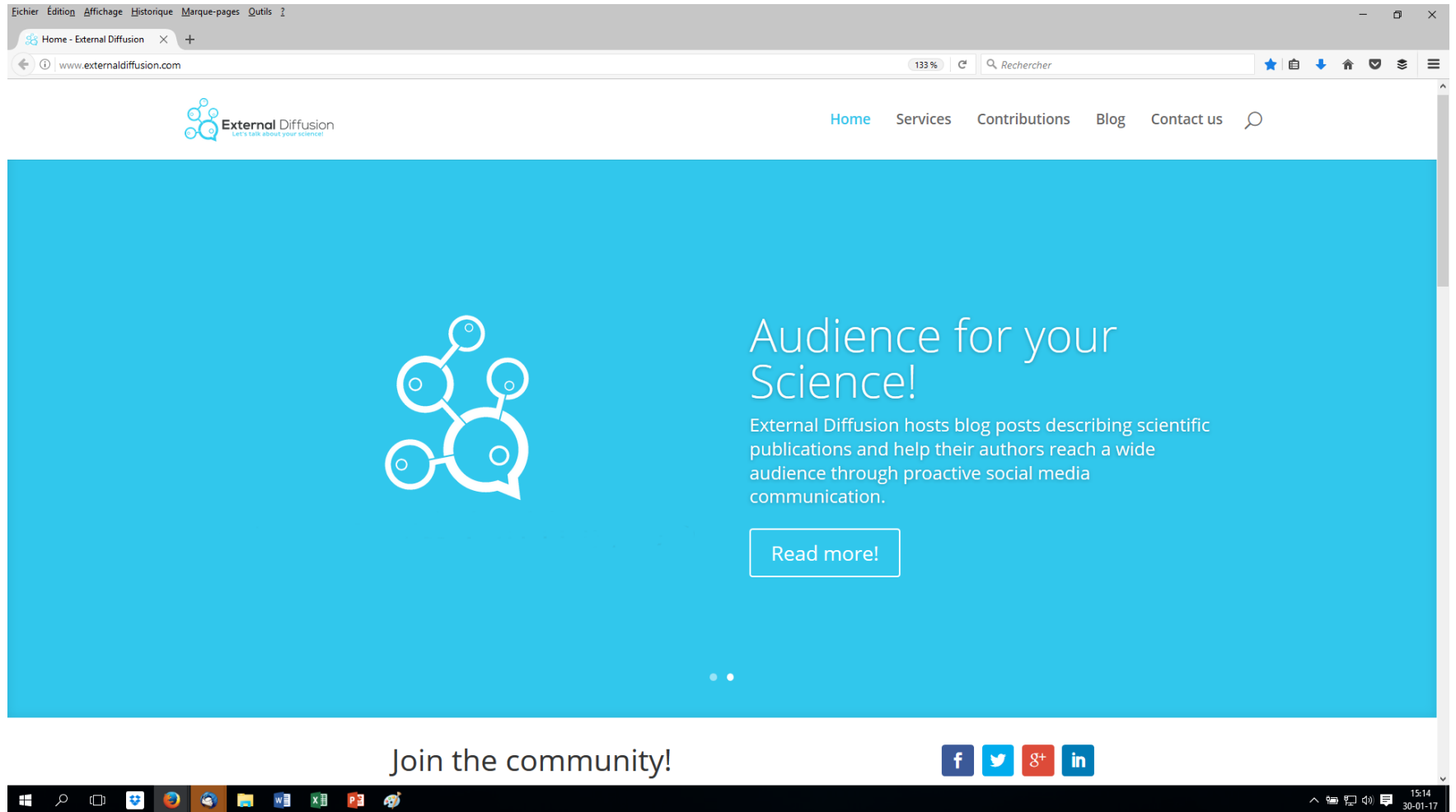
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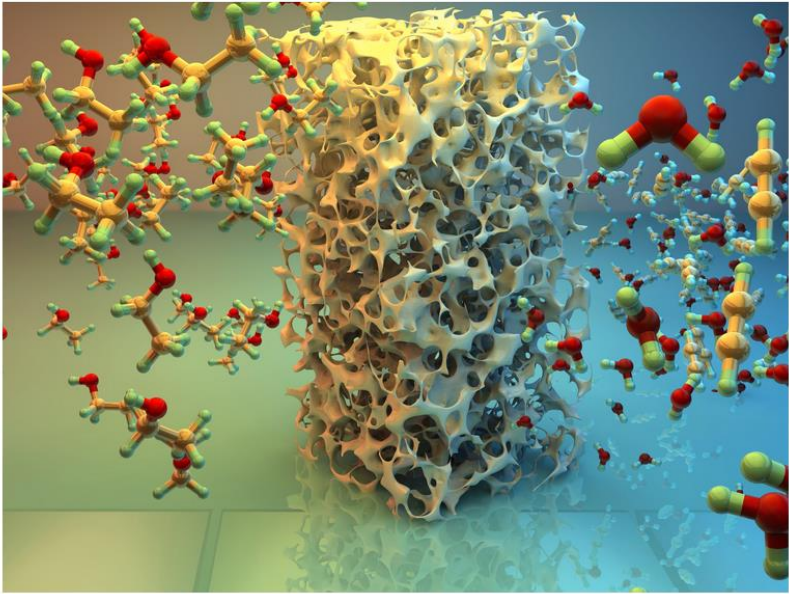
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Macro-mesocellular aluminosilicate foam as acidic catalyst – by Damien Debecker (UCLouvain)

Aug 29, 2016 | Belgium, Chemistry, Damien Debecker, France, Heterogeneous catalysis | 0 comments



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The Concept

A one pot alkaline sol-gel route is coupled with a concentrated emulsion-based templating technique to generate a highly porous and acidic materials, applicable as heterogeneous catalyst, directly shaped as a monolith.

The Outcome

The silica-alumina foam is macrocellular and mesoporous, features a high degree of Al incorporation into the silica framework, exhibits high surface acidity, and reaches excellent dehydration activity.

(Illustration by @Ella_Maru)

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12	10	900	95%
Si/Al ratio	pore volume (cm ³ /g)	Surface area (m ² /g)	ethene yield

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So what is the big finding?

We describe a one-step method to prepare self-standing aluminosilicate monoliths with high acidic properties and appropriate texture. Such hierarchical material exhibits all the advantage of highly acidic mesoporous zeolite-like materials without the drawback linked to their usually powdery form. Indeed, the new monoliths are readily moulded in the desired shape and do not require the often ill-controlled steps of powder shaping or pelletizing. The preparation is based on an alkaline sol-gel route coupled with an emulsion-based technique ([High Internal Phase Emulsion](#)). It is clearly different from the classical sol-gel routes usually proposed for the





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Useful readings

Carn et al. <i>J. Mater. Chem</i> (2004)	Silverstein et al. <i>Polymer</i> (2014)	Brun et al. <i>Chem. Soc. Rev.</i> (2011)
Research paper	Review	Review

The story behind the paper

It sometimes takes time...
"Urgent high quality communications from across the chemical sciences", this is the mantra of ChemComm. Urgent, you say? Well, yes... But... Hum... How to say... Well I hope they will not get upset by me telling the following story. 😊

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frustrating. Another attempt on sugar hydrolysis (thanks to [Sophie Hermans](#)), but again it did not seems to work.

And then suddenly at a meeting with [Certechn](#), in Belgium, it is decided to try ethanol dehydration since they have a set-up ready for that and acidic aluminosilicates are excellent candidates. Bingo! I now had been wasting so much time for me and my co-authors. I had to finish this nice story.

In the end, I guess we are reporting a high quality communication, as required by ChemComm. The definition of "Urgent" on the other hand is difficult to match with the reality of academic research.

The complete publication should be cited as:


First acidic macro-mesocellular aluminosilicate monolithic foams "SiAl(HIPE)" and their catalytic properties

Damien P. Debecker,* Cédric Boissière,* Guillaume Laurent, Stéphanie Huet, Philippe Eliaers, Clément Sanchez and Rénal Backov

Chem. Commun., 2015,51, 14018-14021

DOI: 10.1039/C5CC05328E

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Damien Debecker
Associate Professor

I am an associate professor at the [University of Louvain-La-Neuve](#), in Belgium. When I am not working on my lectures (physical chemistry, process engineering, waste treatment technologies), I am doing [research](#) in the field of chemical engineering. More precisely, we use heterogeneous catalysts and enzymes to perform chemical reactions and design chemical processes in a better (greener) way. I am a [Bio-engineer in chemistry](#)

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Thanks for
your attention



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Further readings:

« The Why and How of Promoting Your Science Publication Online »

www.bitesizebio.com

« 5 reasons why I read scientific blog posts (or why to blog your science!) »

www.piirus.ac.uk/

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