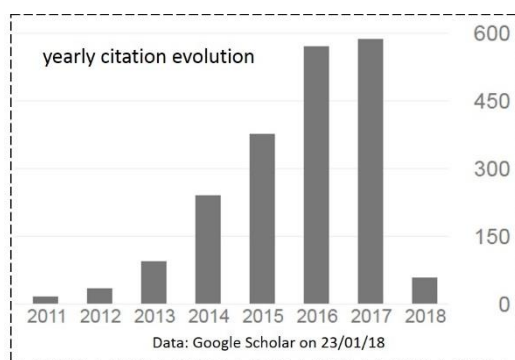


Tenure track research professor at KU Leuven, Age 31, Married with children  
*Complete list of publications, patents and presentations, updated July 19, 2018.*

*'Off the beaten path' researcher in chemical engineering/chemistry with expertise in heterogeneous catalysis, synthesis of zeolites (microporous materials), biomass valorization and bioplastics. Multidisciplinary, creative and experimental approach to solving relevant material synthesis and catalysis bottlenecks or intriguing surface science phenomena. For 3 years now, bottom-up zeolite synthesis is the main focus, bioplastics the second focus. Pioneered several scientific breakthroughs in these domains and which led to granted follow-up projects, high-impact publications and patents, with notably, one sold to industry. Motto: you miss 100% of the shots you don't take.*

#### SUMMARY:

- **40** peer-reviewed (journals indexed Web of Science; avg. journal impact factor (2015) of > 11).
- **12/38 papers as first author**, 12 2<sup>nd</sup> author; **14/38 (co-)corresponding author**; 4 book chapters
- Published as main author in *Science*, *J. Am. Chem. Soc.*, *Angew. Chem. Int. ed.*, *Energy Environ. Sci.*, *ACS Catal.*, *Chem. Mater.*, *Chemical reviews*.
- **h-index = 20** (Web of Science), > **2300 citations** (Google scholar, <http://goo.gl/HP3ICI>)
- **6 different patents**, 3 at CALTECH on zeolite synthesis, 3 on new catalytic processes LEUVEN.
- Valorization track record: **patented zeolite process technology for bioplastics** and subsidiary patents (independently discovered as academic) **sold and transferred to major chemical company** for studying upscaling.



#### ISI Web of Science included (A1) / PEER-REVIEWED JOURNAL PUBLICATION TRACK RECORD:

[\* = corresponding author; IF = impact factor of 2015; citation numbers retrieved from Google Scholar on June 20, 2016; Details: <https://scholar.google.be/citations?user=isbCtL0AAAAJ&hl=nl>]

1) Van de Vyver, S.; Geboers, J.; **Dusselier, M.**; Schepers, H.; Vosch, T.; Zhang, L.; Van Tendeloo, G.; Jacobs, P.; Sels, B.F.\* 'Selective Bifunctional Catalytic Conversion of Cellulose over Reshaped Ni Particles at the Tip of Carbon Nanofibers' *ChemSusChem* **2010**, 3, 698-701.

IF = 7.1, Citations = 121

2) **Dusselier, M.**; de Clippel, F.; Van Rompaey, R.; Vanelderen, P.; Dijkmans, J.; Makshina, E.; Giebeler, L.; Oswald, S.; Baron, G.; Denayer, J.; Pescarmona, P.; Jacobs, P.; Sels, B.F.\* 'Fast and selective sugar conversion to alkyl lactate and lactic acid with bifunctional carbon-silica catalysts' *Journal of the American Chemical Society* **2012**, 134, 10089-10101. (equal contribution, co-first authors)

IF = 13.0, Citations = 130

3) Van de Vyver, S.; J.A. Geboers, J.; Schutyser, W.; **Dusselier, M.**; Eloy, P.; Dornez, E.; Seo, J.; Courtin, C.; Gaigneaux, E.; Jacobs, P.; Sels, B.F.\* 'Tuning the Acid/Metal Balance of Carbon Nanofiber-Supported Nickel Catalysts for Hydrolytic Hydrogenation of Cellulose' *ChemSusChem* **2012**, 5, 1549-1558.

IF = 7.1, Citations = 84

4) Claes, I.; Segers, M.; Verhoeven, T.; **Dusselier, M.**; Sels, B.; De Keersmaecker, S.; Vanderleyden, J.; Lebeer, S.\* 'Lipoteichoic acid is an important microbe-associated molecular pattern of *Lactobacillus rhamnosus* GG' *Microbial Cell Factories* **2012**, 11, 161.

IF = 3.7, Citations = 29

5) de Clippel F.; Khan A.L.; Cano-Odena, A.; **Dusselier, M.**; Vanherck, K.; Peng, L.; Oswald, S.; Giebeler, L.; Corthals, S.; Kenens, B.; Denayer, J.F.M.; Jacobs, P.A.; Vankelecom, I.F.J.; Sels, B.F.\* 'CO<sub>2</sub> reverse selective mixed matrix membranes for H<sub>2</sub> purification by incorporation of carbon-silica fillers' *Journal of Material Chemistry part A*, **2013**, 1, 945-953.

IF = 8.3, Citations = 16

6A) **Dusselier, M.**; Van Wouwe, P.; de Clippel, F.; Dijkmans, J.; Gammon, D. W.; Sels, B.F.\* 'Mechanistic Insight into the Conversion of Tetrose Sugars to Novel  $\alpha$ -Hydroxy Acid Platform Molecules' *ChemCatChem* **2013**, 5, 569-575.

IF = 4.7, Citations = 33

6B) BACK COVER: *ChemCatChem*, February 2013 issue, p620.

7) **Dusselier, M.\***; Van Wouwe, P.; Dewaele, A.; Makshina, E.; Sels, B.F.\* 'Lactic acid as platform chemical in the biobased economy: the role of chemocatalysis' *Energy & Environmental Science*, **2013**, 6, 1415-1442

IF = 25.4, Citations = 172

8A) de Clippel F.; **Dusselier, M.**; Van de Vyver, S.; Peng, L.; Jacobs, P.A.; Sels, B.F. 'Tailoring nanohybrids and nanocomposites for catalytic applications' *Green Chemistry*, **2013**, 15, 1398-1430.

IF = 8.5, Citations = 21

8B) INSIDE COVER: *Green Chemistry*, June 2013 issue, p1386.

9) **Dusselier, M.\***; Van Wouwe, P.; De Smet, S.; De Clercq, R.; Verbelen L.; Van Puyvelde, P.; Du Prez, F.; Sels, B.F.\* 'Toward Functional Polyester Building Blocks from Renewable Glycolaldehyde with Sn Cascade Catalysis' *ACS Catalysis*, **2013**, 3, 1786-1800.

IF = 9.3, Citations = 29

10) Dijkmans J.; Gabriels D.; **Dusselier M.\***; de Clippel F.; Vanelderen P.; Houthoofd K.; Malfliet A.; Pontikes Y.; Sels, B.F.\* 'Productive sugar isomerization with highly active Sn in dealuminated beta zeolites' *Green Chemistry* **2013**, 15, 2777-2785.

IF = 8.5, Citations = 66

11) Van Wouwe, P.; **Dusselier M.**; Basic A.; Sels B.F. \* 'Bridging racemic lactate esters with stereoselective polylactic acid using commercial lipase catalysis' *Green Chemistry* **2013**, 15, 2817-2824.

IF = 8.5, Citations = 15

12) Ooms, R.; **Dusselier, M.**; Geboers, J. A.; Op de Beeck, B.; Verhaeven, R.; Gobechiya, E.; Martens, J.; Redl, A.; Sels, B.F.\* 'Conversion of sugars to ethylene glycol with nickel tungsten carbide in a fed-batch reactor: high productivity and reaction network elucidation.' *Green Chemistry* **2014**, 16, 695-707.

IF = 8.5, Citations = 42

13) Schutyser, W.; Koelewijn, S. F.; **Dusselier, M.**; Van de Vyver, S.; Thomas, J.; Yu, F.; Carbone, M. J.; Smet, M.; Van Puyvelde, P.; Dehaen, W.; Sels, B.F.\* 'Regioselective synthesis of renewable bisphenols from 2,3-pentanedione and their application as plasticizers' *Green Chemistry* **2014**, 16, 1999-2007

IF = 8.5, Citations = 8

14) **Dusselier, M.\***; Mascal M.\*; Sels. B.F.\* 'Top Chemical Opportunities from Carbohydrate Biomass: A Chemist's View of the Biorefinery' *Topics in Current Chemistry, Vol 353*, **2014**, 1-40.

IF = 4.0, Citations = 41

15) **Dusselier, M.\***; Sels. B.F.\* '*Selective Catalysis for Cellulose Conversion to Lactic Acid and Other  $\alpha$ -Hydroxy Acids*'. *Topics in Current Chemistry, Vol 353*, **2014**, 85-125.

IF = 4.0, Citations = 21

16) Makshina, E. V.\*; **Dusselier, M.**; Janssens, W.; Degreve, J.; Jacobs, P. A.; Sels, B.F.\* *Review of old chemistry and new catalytic advances in the on-purpose synthesis of butadiene. Chemical Society Reviews* **2014**, 43, 7917-7953

IF = 34.1, Citations = 46

17) Demuyne, A. L. W.; Goesten, M. G.; Ramos-Fernandez, E. V.; **Dusselier, M.**; Vanderleyden, J.; Kapteijn, F.; Gascon, J.; Sels, B. F.\* 'Induced Chirality in a Metal–Organic Framework by Postsynthetic Modification for Highly Selective Asymmetric Aldol Reactions' *ChemCatChem* **2014**, 6, 2211

IF = 4.7, Citations = 5

18A) Jacobs, P.A.; **Dusselier, M.**; Sels, B.F.\* *Will Zeolite-Based Catalysis be as Relevant in Future Biorefineries as in Crude Oil Refineries? Angewandte Chemie Int. Edition* **2014**, 53, 8621-8626.

IF = 11.7, Citations = 40

18B) also in German in *Angewandte Chemie* **2014**, 126, 8765-8770.

19A) Op de Beeck, B.; **Dusselier, M.**; Geboers, J.; Holsbeek, J.; Morre, E.; Oswald, S.; Giebeler, L.; Sels, B.F.\* 'Direct catalytic conversion of cellulose to liquid straight-chain alkanes' *Energy & Environmental Science* **2015**, 8, 230-240

IF = 25.4, Citations = 38

19B) FRONT COVER: *Energy & Environmental Science*, January 2015 issue.

20) Dijkmans, J.; **Dusselier, M.**; Gabriëls, D.; Houthoofd, K.; Magusin, P. C. M. M.; Huang, S.; Pontikes, Y.; Trekels, M.; Vantomme, A.; Giebeler, L.; Oswald, S.; Sels, B. F.\* 'Cooperative catalysis for Multistep Biomass Conversion with Sn/Al Beta Zeolite' *ACS Catalysis* **2015**, 5, 928–940.

IF = 9.3, citations = 22

21) **Dusselier, M.**; Schmidt, J. E.; Moulton, R.; Haymore, B.; Hellums, M.; Davis, M. E.\* 'Influence of Organic Structure Directing Agent Isomer Distribution on the Synthesis of SSZ-39' *Chemistry of Materials*, **2015**, 27, 2695-2702

IF = 9.4, citations = 5

22) **Dusselier, M.\***; Van Wouwe, P.; Dewaele, A.; Jacobs, P.A.; Sels, B.F.\* 'Shape-selective zeolite catalysis for bioplastics production' *Science* **2015**, 349, 78-80

IF = 34.7, citations = 31

(Highlighted in lots of Belgian and international magazines, e.g. AIChE's Chemical Engineering Progress, Flanders Today, ...)

23) De Clercq, R.; **Dusselier, M.\***; Christiaens, C.; Dijkmans, J.; Iacobescu, R. I.; Pontikes, Y.; Sels, B.F.\* 'Confinement Effects in Lewis Acid-Catalyzed Sugar Conversion: Steering Toward Functional Polyester Building Blocks' *ACS Catalysis* **2015**, 5, 5803-5811.

IF = 9.3, citations = 9

24) **Dusselier, M.**; Deimund, M. A.; Schmidt, J. E.; Davis, M. E.\* 'Methanol-to-Olefins Catalysis with Hydrothermally Treated Zeolite SSZ-39' *ACS Catalysis* **2015**, 5, 6078-6085

IF = 9.3, citations = 5

25) Dijkmans, J.; **Dusselier, M.**; Janssens, W.; Trekels, M.; Vantomme, A.; Breynaert, E.; Kirschhock, C.; Sels, B.F.\* 'An inner/outer-sphere stabilized Sn active site in Beta zeolite: spectroscopic evidence and kinetic consequences' *ACS Catalysis* **2016**, 6, 31-46.

IF = 9.3, citations = 9

26) Ennaert, T.; Van Aelst, J.; Dijkmans, J.; De Clercq, R.; Schutyser, W.; **Dusselier, M.**; Verboekend, D.\*; Sels, B. F.\* 'Potential and challenges of zeolite chemistry in the catalytic conversion of biomass' *Chemical Society Reviews* **2016**, 45, 584-611

IF = 34.1, citations = 8

27) Van Wouwe, P.; **Dusselier, M.\***; Vanleeuw, E.; Sels, B.F.\* 'Lactide synthesis and chirality control for PLA production' *ChemSusChem*, **2016**, 9, 907-921

IF = 7.1, citations = 1

28) Dijkmans, J.; Schutyser, W.; **Dusselier, M.**; Sels, B.F.\* 'Sn $\beta$ -zeolite catalyzed oxido-reduction cascade chemistry with biomass-derived molecules.' *Chemical communications*, **2016**, 52(40): 6712-6715

IF = 6.6, citations = 0

29) Dewaele, A.; Meerten, L.; Verbelen, L.; Eyley, Samuel; Thielemans, W.; Van Puyvelde, P.; **Dusselier, M.\***; Sels, B.F.\* 'Synthesis of Novel Renewable Polyesters and Polyamides with Olefin Metathesis' *ACS Sustainable Chemistry and Engineering*, **2016**, DOI:0.1021/acssuschemeng.6b00807

IF = 5.3, citations = 0

30) Deneyer, A.; Ennaert, T.; Cavents, G., Dijkmans, J.; Vanneste, J.; Courtin, C.; **Dusselier, M.\***; Sels, B.F.\* 'Compositional and structural feedstock requirements of a liquid phase cellulose-to-naphtha process in a carbon- and hydrogen-neutral biorefinery context.' *Green Chemistry*. In press:

DOI:10.1039/C6GC01644H

IF = 8.5, citations = 0

31) **Dusselier, M.\***; De Clercq, R.; Cornelis, Roy; Sels, B.F. 'Tin triflate-catalyzed conversion of cellulose to valuable (alpha-hydroxy-) esters' *Catalysis Today*, **2017**, 279, Part 2, 339-344

IF =4.3, citations = 4

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32) Albarracin-Caballero, J. D.; Khurana, I.; Di Iorio, J. R.; Shih, A. J.; Schmidt, J. E.; **Dusselier, M.**; Davis, M. E.; Yezerets, A.; Miller, J. T.; Ribeiro, F. H.; Gounder, R.\*, 'Structural and kinetic changes to small-pore Cu-zeolites after hydrothermal aging treatments and selective catalytic reduction of NO<sub>x</sub> with ammonia.' *Reaction Chemistry & Engineering* **2017**. DOI: 10.1039/C6RE00198J

Advance article online). No IF yet, citations = 0

33) Ferrini, P.; Dijkmans, J.; De Clercq, R.; Van de Vyver, S.; Dusselier, M.; Jacobs, P. A.; Sels, B. F. 'Lewis acid catalysis on single site Sn centers incorporated into silica hosts' *Coordination Chemistry Review* **2017**, 343, 220.

IF =13.3, citations = 1

34) De Clercq, R.; **Dusselier, M.\***; Sels, B. F. Heterogeneous catalysis for bio-based polyester monomers from cellulosic biomass: advances, challenges and prospects. *Green Chemistry* **2017**, 19, 5012-5040. IF =9.13, citations = 3

35) **Dusselier, M.\***; Kang, J. H.; Xie, D.; Davis, M. E.\* CIT-9: A Fault-Free Gmelinite Zeolite. *Angewandte Chemie International Edition* **2017**, 56, 13475-13478

36) Locus, R.; Verboekend, D.; d'Halluin, M.; **Dusselier, M.**; Liao, Y.; Nuttens, N.; Jaumann, T.; Oswald, S.; Mafra, L.; Giebler, L.; Sels, B. Synthetic and Catalytic Potential of Amorphous Mesoporous Aluminosilicates Prepared by Postsynthetic Aluminations of Silica in Aqueous Media. *ChemCatChem*, **2018** 10, 1385-1397.

37) De Clercq, R.; **Dusselier, M.\***; Makshina, E.; Sels, B. F.\* Catalytic Gas-Phase Production of Lactide from Renewable Alkyl Lactates. *Angewandte Chemie International Edition* **2018**, 57, 3074-3078.

38) **Dusselier, M.\***; Davis, M. E.\* Small-Pore Zeolites: Synthesis and Catalysis. *Chemical Reviews*, **2018**, 118, 5265–5329. INCLUDING FRONT COVER <https://pubs.acs.org/toc/chreay/118/11>

39) Deneyer, A.; Tlatli, S.; Dusselier, M.\*; Sels, B. F.\* Branching-first: synthesizing C-C skeletal branched bio-based chemicals from sugars. *ACS Sustainable Chemistry & Engineering* **2018**, 6, 7940–7950.

40) Ghadamyari, M.; Chaemchuen, S.; Zhou, K.; **Dusselier, M.**; Sels, B. F.; Mousavi, B.; Verpoort, F. One-step synthesis of stereo-pure l,l lactide from l-lactic acid. *Catal. Commun.* **2018**, 114, 33-36.

41-43) One accepted, and twice minor revisions received

44-47) to be submitted soon.

## BOOK CHAPTERS (CONFERENCE PROCEEDINGS OR INVITED):

- Peeters, A.; Majano, G.; Steenackers, B.; Philippaerts, A.; **Dusselier, M.**; Geboers, J.; Dijkmans, J.; Van de Vyver, S.; Sels, B.; De Vos, D. (2011). Zeolites as Catalysts for Fine Chemicals Synthesis and Renewables Conversion. In: Martinez C., Pérez-Pariente J. (Eds.), *Zeolites and Ordered Porous Solids: Fundamentals and Applications, Fifth International FEZA conference*. Spain: Laimprenta CG, Chapt. 10, 301-337.
- Van de Vyver, S.; Geboers, J.; Peng, L.; de Clippel, F.; **Dusselier, M.**; Vosch, T.; Zhang, L.; Van Tendeloo, G.; Gommès, C.; Goderis, B.; Jacobs, P.; Sels, B. (2011). Bridging the Gap between Cellulose Chemistry and Heterogeneous Catalysis. *Sustainable Chemistry: Transactions in ecology and the environment*. Vol. 154. Ashurst, WIT-Press, Southampton. DOI:10.2495/CHEM110131
- De Clercq, R.; **Dusselier, M.**; Sels, B., Advances in the Conversion of Short-Chain Carbohydrates: A Mechanistic Insight. In *Reaction Pathways and Mechanisms in Thermocatalytic Biomass Conversion I*, Schlaf, M.; Zhang, Z. C., Eds. Springer Singapore: 2016; 27-55.
- Ennaert, T.; Schutyser, W.; Dijkmans, J.; **Dusselier, M.**; Sels, B.F. 'Chapter 9: Conversion of Biomass to Chemicals: The Catalytic Role of Zeolites'; in book: *Zeolites and Zeolite-Like Materials*, Sels, B. and Kustov, L., Eds. Elsevier, 2016 pp.371-431

## PATENT TRACK RECORD (Pending Patents or filed applications):

1) **M. Dusselier**, B.F. Sels. 'Process for preparing cyclic esters and cyclic amides', WO2014122294, Originally Filed (EP) on 8 February **2013**.

(Corresponding to *Science* paper process, This has been sold to Total, for further upscaling studies)  
GRANTED

2) B. Op de Beeck, B.F. Sels, **M. Dusselier**. 'Biphasic solvent catalytic process for the direct production of light naphtha from carbohydrate-containing feedstock.'  
PCT/BE2015/000025. Filed on 12 May **2014**.

3) **M. Dusselier**, J. E. Schmidt, M. E Davis. 'Producing Zeolite SSZ-39 Using Isomeric Mixtures Of Organic Structure Directing Agents' *US Patent Application n° 14/929,571*. Filed on 2 November **2015**.

4) **M. Dusselier**, M.E Davis. Notarized Invention disclosure form: 'Processes For Preparing Zincoaluminosilicates With AEI, CHA, And GME Topologies And Compositions Derived Therefrom' *US Patent Application n° 15/050,885*. Filed on 2 February **2016**.  
GRANTED

5) **M. Dusselier**, M.E Davis. 'Methods To Produce Zeolites With The GME Topology And Compositions Derived Therefrom'  
*United States Patent Application n° 15/050,839*. Filed on 23 February **2016**.  
GRANTED

6) De Clercq, R.; **Dusselier, M.**; Sels, B.F. 'Process for preparing cyclic esters from alpha-hydroxy esters and catalysts used therein. PCT/EP2017/074247, **Filed 2016**

## INVITED SEMINAR SPEAKER TRACK RECORD:

- at University of Oklahoma, USA:  
'Converting Biomass to Chemicals: Combining Insights from Heterogeneous, Homogeneous and Enzyme Catalysis', 6 November, 2014.
- at Université de Lille 1: UCCS, France:  
'The role of zeolites in the sustainable production of chemicals Lactic acid as a biomass platform and methanol-to-olefins catalysis' 10 September, 2015.
- at Ghent University, Dept. of Chemical engineering, Belgium:  
'Zeolites for the sustainable production of chemicals: catalysis for bioplastics and methanol-to-olefins' 27 November, 2015.
- at Guangzhou Energy conversion Institute, Prof. C. Wang, Guangzhou China, September 2017
- at Southern University of Science and Technology (SUSTech), Prof. M. Gu, Shenzhen, China  
September 2017
- at State Key Laboratory of Jilin University, Prof. Jihong Yu, Jilin China September, 2017
- at Dalian Institute of Chemical Physics (DICP), Prof. Zhongmin Liu, Dalian, China, September 2017
- at Peking University, Prof. Haichao Liu, Beijing, China, September 2017
- at Institute of Condensed Matter and Nanosciences, UCL, Prof. Damien Debecker Louvain La Neuve, Belgium, 25/02/2018
- at a Company, 26 July 2018

## SCIENTIFIC COMMUNICATIONS IN NON-SPECIALIZED MEDIA

Knack, de Tijd, Trends, Flanders Today, AIChE Chemical engineering Progress, ...

Reuters UK movie: [http://uk.reuters.com/video/2016/02/15/cheaper-greener-route-to-](http://uk.reuters.com/video/2016/02/15/cheaper-greener-route-to-bioplastic?videoId=367406524)

[bioplastic?videoId=367406524](http://uk.reuters.com/video/2016/02/15/cheaper-greener-route-to-bioplastic?videoId=367406524) , <https://www.vrt.be/vrtnws/nl/2018/05/07/leuvense-onderzoekers-maken-bioplastische-uit-kaasafval/>, ...



## CONFERENCE PRESENTATION TRACK RECORD:

### Summary:

I presented my work in 20 oral talks and 4 poster presentations at leading international conferences in my field in 9 countries (ACS conferences, Pacifichem, IUPAC Green Chem, North American Catalysis society meetings, Nano VI, ...). My first invited talk at an international conference was in 2016, at the ACS Spring meeting in San Diego. I have been invited a couple of times as seminar speaker and was an invited teacher for a summer school in Italy. Furthermore my colleagues presented work that I co-authored in +- 20 talks and 3 posters at international conferences; and also in 7 posters nationally.

### Oral Presentations at international conferences, as presenting author

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- **M. Dusselier**, F. de Clippel, L. Giebeler, S. Oswald, L. Peng, P.A Jacobs, B.F Sels 'Catalytic Biomass Opportunities with Carbon-Silica Composites' *British Zeolite Association annual meeting*, Edinburgh, UK, 12 April 2011
- **M. Dusselier**, F. de Clippel, L. Giebeler, S. Oswald, L. Peng, P.A Jacobs, B.F Sels 'A Versatile Class of Carbon-Silica Composites for Tackling Biomass Challenges' *NANO 6*, Banff, Canada, 21-23 August 2011
- **M. Dusselier**, F. de Clippel, L. Giebeler, S. Oswald, L. Peng, P.A Jacobs, B.F Sels 'Towards Greener Lactic Acid with Carbon-Silica Composite' *A Greener Chemistry for Industry*, Lille, France, 12-14 December 2011
- **M. Dusselier**, F. de Clippel, L. Giebeler, P.A Jacobs, B.F Sels 'Fast and Selective Sugar Conversion to Alkyl Lactate and Lactic Acid with Bifunctional Carbon Silica Hybrid Catalysts' *4th IUPAC Conference on Green Chemistry*, Foz do Iguaçu, Brazil, 25-28 August 2012
- **M. Dusselier**, W. Schutyser, S. Van de Vyver, J. Geboers, P.A Jacobs and B.F Sels 'Carbon Nanofiber Supported Nickel Catalysts for the Reductive Splitting of Cellulose' *4th IUPAC Conference on Green Chemistry*, Foz do Iguaçu, Brazil, 25-28 August 2012
- **M. Dusselier**, P.A Jacobs, B.F Sels 'Chemicals from renewable carbohydrate feedstocks – zeolites vs new porous materials' *Dutch Zeolite Association Symposium*, Utrecht, the Netherlands, 22 November 2012
- **M. Dusselier**, P. Van Wouwe, F. de Clippel, J. Dijkmans, D.W. Gammon and B.F. Sels 'Mechanistic insight into the Sn catalyzed conversion of tetrose sugars to novel alpha-hydroxy acid platform molecules' *245th ACS National Meeting*, New Orleans LA, USA, 7-11 April 2013
- **M. Dusselier**, F. de Clippel, L. Giebeler, P.A. Jacobs, B.F. Sels 'Fast and selective sugar conversion to alkyl lactates and lactic acid with Sn-based bifunctional carbon silica hybrid catalysts' *245th ACS National Meeting*, New Orleans LA, USA, 7-11 April 2013
- **M. Dusselier**, P. Van Wouwe, R. De Clercq, S. De Smet, P. Van Puyvelde, F.E. Du Prez, B.F. Sels. 'Conversion of cellulose to lactates and other alpha-hydroxy esters: Catalytic insight into the cascade reaction', *248th ACS National Meeting*, San Francisco CA, USA, 10-14 August 2014
- B. Op de beeck, **M. Dusselier**, J.A. Geboers, J. Snelders, C. Courtin, S. Oswald, L. Giebeler, P.A. Jacobs, B.F. Sels. 'Direct, fast, and selective catalytic conversion of cellulose to n-hexane', *248th ACS National Meeting*, San Francisco CA, USA, 10-14 August 2014
- **M. Dusselier**, J.E. Schmidt, R. Moulton, B. Haymore, M. Hellums, M.E. Davis. 'The Synthesis of SSZ-39 Using Mixtures of Isomeric, Organic Structure Directing Agents'. *24nd North American Catalysis Society Meeting*, Pittsburgh PA, USA, 14-19 June 2015

- **M. Dusselier**, 'Valorization of biomass for the preparation of chemicals and materials' Invited teacher at the *Green chemistry school of the Italian Chemical society*, Verbania, September 2015.
- **M. Dusselier**. 'Shape-selectivity in biomass conversion: zeolite catalysis enters bioplastics production' *International Chemical Congress of the Pacific Basin Societies (PACIFICHEM)*, Honolulu HI, USA, 15-20 December 2015.
- **M. Dusselier**, 'Shape-selective zeolite catalysis for polyester bioplastics production' **Invited talk** at ACS Spring Meeting, San Diego, 13-17 March 2016.
- **M. Dusselier**, 'Zeolite innovations for bioplastics and sustainable chemicals' Award lecture, CGB-CBB prize, Blankenberge, 26 October 2016.
- **M. Dusselier**, A. Dewaele, R. De Clercq, B.F. Sels, THE ROLE OF SHAPE-SELECTIVE ZEOLITE CATALYSIS IN BIOPLASTICS PRODUCTION, 7<sup>th</sup> FEZA meeting, Sofia, Bulgaria July 3-7 2017
- **M. Dusselier**, D. Xie, JH Kang, ME Davis; A NEW SYNTHETIC ROUTE TO THE ELUSIVE AND FAULT-FREE GME-ZEOLITE: CIT-9' 7<sup>th</sup> FEZA meeting, Sofia, Bulgaria, July 3-7 2017
- **M. Dusselier**, D. Xie, JH Kang, ME Davis, 'Cis-trans isomerism and the role of concentration in organic structure direction to zeolite catalysts'. NCCC Netherlands, March 2018
- **M. Dusselier**, D. Xie, JH Kang, ME Davis, 'Cis-trans isomerism and the role of dilution in organic structure direction to zeolite catalysts' ACS Spring, New Orleans USA, March 2018
- **M. Dusselier**, 'Small-pore aluminosilicate zeolites: synthesis, Al-distribution and catalysis' **Invited Keynote lecture** at 'VIII Russian Zeolite conference', Ufa, Russia, June 2018

Oral Presentations at national Belgian meetings, **as presenting author**.

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- **M. Dusselier**, F. de Clippel, L. Giebeler, S. Oswald, L. Peng, P.A Jacobs and B.F Sels 'Towards Greener Lactic Acid with Carbon-Silica Composites' *ChemCYS*, Blankenberge Belgium, March 2012

Poster presentations at (inter)national conferences, **as presenting author**.

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- F. de Clippel, **M. Dusselier**, L. Giebeler, S. Oswald, L. Peng, A. Harkiolakis, G. Baron, P. Jacobs, J.F.M. Denayer, B.F. Sels 'Catalytic opportunities with carbon silica composites' *Dutch Zeolite Association Symposium*, Eindhoven, the Netherlands, 11 November 2010.
  - **M. Dusselier**, P. Van Wouwe, F. de Clippel, P. Van Puyvelde, F.E. Du Prez, B.F. Sels, 'Tailoring of catalytic routes towards high performance bio-derived polymers: Novel building blocks and their incorporation in existing (PLA) polyesters' Poster presentation as award Breen Fellow. *17th Annual Green Chemistry and Engineering Conference*, Bethesda MD, USA, 18-20 June 2013.
  - **M. Dusselier**, de Clippel F., P. Van Wouwe, S. De Smet, R. De Clercq, L. Verbelen, P. Van Puyvelde, F.E. Du Prez, B.F. Sels. 'Tailoring of catalytic routes towards high performance biopolymers: Novel building blocks and their incorporation in existing (PLA) polyesters'. *Annual Scientific Meeting IAP FS2 P7/05*, Ghent, Belgium, 18 September 2013.
  - **M. Dusselier**, D. Xie, JH Kang, ME Davis, 'A new route to the elusive, fault-free, zeolite GME'. *The 3<sup>rd</sup> Euro-Asia Zeolite Conference*, Bali, Indonesia, January 2017