DIFFER
Dutch Institute for
Fundamental Energy Research

Annual Report 2015 appendix

Dutch Institute for Fundamental Energy Research

Index

*This appendix to the DIFFER annual report 2015 gives an overview of the employees in the institute's groups and lists the scientific output at DIFFER in 2015. Some output from the themes on plasma surface interactions and nanolayer surface and interface physics is also part of the solar fuels theme; this is indicated in the output lists with an *.*

The annual report and appendices can be found at www.differ.nl/annual_reports

appendix A

Personnel

Management team

Director, theme leader solar fuels	*M.C.M. van de Sanden*
Institute manager	*W.R. Koppers*
Theme leader fusion	*M.R. de Baar*

Fusion energy theme

Theme leader	*M.R. de Baar*
Advisor	*A.J.H.Donné*

Computational Plasma Physics - High Temperature

Program leader	*E. Westerhof*
Senior scientist	*H.J. de Blank, P. Diomede, G.M.D. Hogeweij*
Research assistant	*R.H.J. Westermann*
Postdoc	*J. Citrin, T.P.C. Klaver*
PhD student	*F.F.E. Jaulmes, W. Lu*
MSc student	*S. Cats*
Advisor	*J.P. Goedbloed*

Plasma Diagnostics

Program leader	*M.R. de Baar a.i.*
Senior scientist	*M.G. Tsalas*

Plasma Surface Interactions - Engineering

Program leader	*M.R. de Baar a.i.*
Senior scientist	*H.J. van der Meiden, T.W. Morgan*
Postdoc	*S.C. Bardin*
PhD student	*D.U.B. Aussems, G.G. van Eden, V. Kvon, I. Tanyeli*
BSc student	*K.L. Nicolai*
Guest researcher	*L. Cheng, K. Jesko, Y. Zayachuk, M. Zibrov*

Plasma Surface Interactions - Facilities and Instrumentation

Program leader	*H.J.N. van Eck*
Research engineer	*R.S. Al, S. Alonso van der Westen, S. Brons, M.A. van den Berg, M.J. van de Pol, J. Scholten, J.W.M. Vernimmen, E.G.P. Vos*
Advisor	*W.M. Arnold Bik, O.G. Kruijt*

Tokamak Physics

Program leader	*M.R. de Baar*
Senior scientist	*I.G.J. Classen, M. Kantor (also Ioffe and FZJ)*
Industrial Liaison officer	*A.G.A. Verhoeven*
Research engineer	*T.C. Blanken, B.S.Q. Elzendoorn, J.F. Koning, D.M.S. Ronden*
Postdoc	*W. Vijvers*
PhD student	*M. van Berkel, H. Boessenkool, A. Bogomolov, H. van den Brand, B. van Es, G. Hommen, M. Lauret, A. Kappatou, J. van Oosterhout, R. Perillo, B. Vanovac*
BSc student	*D.J. Bult, D. van Lith, D. Smedinga, E. Versteeg, R. Visser*
Guest researcher	*R. van de Logt, F.C. Schuller*

Solar fuels theme

Theme leader solar fuels	*M.C.M. van de Sanden*
Advisor	*A.P.H. Goede, A.W. Kleijn*
Guest researcher	*R.F. Rumphorst*

Atmospheric Plasma Processing for Functional Films

Program leader	*H.W. de Vries*
Postdoc	*S.A. Starostin*
PhD student	*F. Elam, Y. Liu, A. Meshkova*

Materials and Surface Science

Program leader	*M.A. Gleeson*
Postdoc	*A.J. Walsh*
PhD student	*T.T. Belete*
Guest researcher	*R. van Lent*

Molecular Solar Energy

Program leader	*R. Janssen*

Nanomaterials for Energy Applications

Program leader	*A. Baldi*
PhD student	*R. Kamarudheen, M. Parente*

Nonequilibrium Fuel Conversion

Program leader	*G.J. van Rooij*
Postdoc	*J.M. Palomares Linares, F.J.J. Peeters, S. Ponduri*
PhD student	*D.C.M. van den Bekerom, T. Minea*
MSc student	*L.H. de Groot*

Photo-electrochemical Materials and Interfaces

Program leader	*A. Bieberle*
Postdoc	*X. Zhang*
PhD student	*R. Sinha*
Guest researcher	*Y. Zhao*

Photoelectrocatalysis for Solar Fuels

Program leader	*M. Tsampas*
Postdoc	*T.S. Stoll*
PhD student	*G. Zafeiropoulos*

Photonics for Energy

Program leader	*J. Gómez Rivas*
Research engineer	*P. Stroobach*
Postdoc	*A. Halpin*
PhD student	*A. Bhattacharya, M. Ramezani*
Guest researcher	*A.D. van Dam, M. Escriba Gelonch*
MSc student	*W.A. van der Meer*

Plasma Solar Fuels Devices

Program leader	*W.A. Bongers*
Postdoc	*T. Verreycken, S. Wang*
PhD student	*A.J. Wolf*

Solar Fuels Facilities & Instrumentation

Program leader	*S. Welzel*
Research engineer	*B.S.Q. Elzendoorn, M.F. Graswinckel, B. van Hemert, P. Sallé, E. Zoethout*
Postdoc	*I. Dogan*
BSc Student	*H. Dzafic, L.M. Verkoeijen*

Support facilities and staff

Division head

W.R. Koppers

Occupational Health & Safety

Responsible officer	*A.M.M. Arends*

Communication

Group leader	*F.T.M.E. de Vries*
Personnel	*A.P. Visser*

Financial Administration

Group leader	*M.P.M. Schoonen*
Personnel	*A.W.G. van den Heuvel-Vermeer, W. Mensink, D. Nguyen, N. Nobbenhuis*

Management Support

Group leader	*W.R. Koppers*
Personnel	*E.M. Khan, E. Langereis, A.A.M. Oomens, P.H.M. Smeets, J.G. Stroet, M.J. van Veenendaal-Vanden Akker, C.M. Visser, M.D. van der Vlis-Kettmann, E.C.M. van Wijk*

Personnel Services (Human Resources)

Group leader	*H.J. Tamsma*
Personnel	*J.M. van Achthoven*

Electronics & ICT

Group leader	*A. Broekema*
Personnel	*M.T. Breugem, J.W. Genuit, P.W.C. Groen, G.W. Hendriks, G. Kaas, J.J. Kamp, B.J.M. Krijger, G. Land, W. Melissen, A.J. Poelman, J.J.B. Stakenborg, C.J. Theunissen, J.W. Wahlbrinck, F. Wijnoltz*

Mechanical Techniques

Group leader	*F.J. van Amerongen*
Personnel	*G. van der Bijl, A.G.M. van den Bogaard, J. Lagerweij, B. Lamers, L.W.E.G Römers, A. Tamminga, C.R. Wolbeer, P.M. Wortman*
Apprentices	*T.D. Bax, J. van Ieperen, D. van der Meer*

Technical Facilities

Group leader	*K.T. Grootkarzijn*
Personnel	*M.H. Kloosterman*

Domestic Facilities

Group leader	*J.E. Kragten*
Personnel	*J.F. Alberts, F.F. Hekkenberg, J.C. Maarsseveen, S. van Schaik, P. Stekelenburg, J.B. Uwland, L.M. van de Ven*

Estate Management

Group leader	*A.P. Bikker*

appendix B

Output

DIFFER

Public events: 2

1. *Open day for the general audience, 2015/10/04, Eindhoven, the Netherlands*
2. *Formal opening of the DIFFER building, 2015/11/19, Eindhoven, the Netherlands*

Media: 19

1. *Haast geboden voor energieonderzoekers, BNR Nieuwsradio, 2015/11/19, item with M.C.M. van de Sanden, R.A.J. Janssen*
2. *Staatssecretaris Sander Dekker opent nieuw DIFFER, Studio040, 2015/11/19, item with M.C.M. van de Sanden, W.A. Bongers*
3. *Naadloos verhuizen dankzij lichtpad, Surfnet, 2015/05/21, item with A. Broekema*
4. *Nieuwbouw topinstituut DIFFER officieel geopend, architectenweb.nl, 2015/11/20*
5. *BREEAM-certificaat Excellent voor DIFFER, breeam.nl, 2015/11/19*
6. *Gebouw DIFFER officieel geopend, tue.nl, 2015/11/19*
7. *Nieuwbouw topinstituut DIFFER, architectuur.nl, 2015/11/19*
8. *Opening nieuwbouw topinstituut DIFFER, ectorhoogstad.com, 2015/11/19*
9. *Recordaantal bezoekers backstage tijdens Weekend van de Wetenschap, engineersonline.nl, 2015/10/05*
10. *Open dag bij energie-instituut DIFFER, studio040.nl, 2015/09/29*
11. *Woningen in labs en opstallen, De Telegraaf, 2015/05/29*
12. *140 Nieuwegeinse energie-onderzoekers verhuizen naar TU/e-campus, e52.nl, 2015/05/12*
13. *Veel oranje hightech op Hannover Messe, Eindhovens Dagblad, 2015/04/14*
14. *Nieuwbouw DIFFER opgeleverd, EngineersOnline, 2015/04/10*
15. *Duurstroom plaatst 922 zonnepanelen op nieuwbouw (zonne-)energie-instituut DIFFER, Solar Magazine, 2015/01/26*
16. *Onderzoeksinstituut DIFFER is verhuisd naar de TU/e-campus, www.tue.nl, 2015/005/12*
17. *Instituut Differ zit met loopbrug vast aan TU/e, Eindhovens Dagblad, 2015/11/19, item with M.C.M. van de Sanden*
18. *Wetenschappelijk instituut DIFFER verhuisd van Nieuwegein naar Eindhoven, Eindhovens Dagblad, 2015/07/10, item with M.C.M. van de Sanden, W.R. Koppers*
19. *Nobelprijs voor neutrino-ontdekkingen, kijkmagazine.nl, 2015/10/06, item with F.T.M.E. de Vries*

Apprenticeships: 2

1. *T. Bax, (stageverslag LIS Leidse Instrumentmakers School, Leiden:) Stage Beroepspraktijkvorming BPV Mechatronica, 2015, Mentor: J. Lagerweij*
2. *J. van Ieperen, (stageverslag ROC Midden-Nederland, Nieuwegein:) Stage Opleiding Mechatronica, 2015*

Theme Fusion Energy - plasma surface interactions

Bachelor theses: 1

1. *K.L. Nicolai, (HBO scriptie Fontys Hogeschool, Eindhoven:) Determination of electron temperature by high-n spectroscopy, 2015, Mentor: H.J. van der Meiden*

Publications in peer-reviewed scientific journals: 36

1. *T. Abrams, M.A. Jaworski, R. Kaita, J.H. Nichols, D.P. Stotler, G. De Temmerman, M.A. van den Berg, H.J. van der Meiden, T.W. Morgan, Modeling the reduction of gross lithium erosion observed under high-flux deuterium bombardment, J. Nucl. Mater. 463 (2015) 1169 - 1172*
2. *D. Alegre, T. Acsente, A.B. Martin-Rojo, E. Oyarzabal, F.L. Tabares, G. Dinescu, G. De Temmerman, R. Birjega, C. Logofatu, J. Kovac et al., Characterisation of Tungsten Nitride Layers and their Erosion under Plasma Exposure in NANO-PSI, Romanian Rep. Phys. 67 (2015) 532-546*
3. *D.I. Astakhov, W.J. Goedheer, C.J. Lee, V.V. Ivanov, V.M. Krivtsun, A.I. Zotovich, S.M. Zyryanov, D.V. Lopaev, F. Bijkerk, Plasma probe characteristics in low density hydrogen pulsed plasmas, Plasma Sources Sci. Technol. 24 (2015) 055018*
4. *D.U.B. Aussems, D. Nishijima, C. Brandt, H.J. van der Meiden, M. Vilémová, J. Matejicek, G. De Temmerman, R.P. Doerner, N.J. Lopes Cardozo, The occurrence and damage of unipolar arcing on fuzzy tungsten, J. Nucl. Mater. 463 (2015) 303 - 307*
5. *S. Bardin, T.W. Morgan, X. Glad, R.A. Pitts, G. De Temmerman, Evolution of transiently melt damaged tungsten under ITER-relevant divertor plasma heat loading, J. Nucl. Mater. 463 (2015) 193 - 197*
6. *L. Buzi, G. De Temmerman, B. Unterberg, M. Reinhart, T. Dittmar, D. Matveev, C. Linsmeier, U. Breuer, A. Kreter, G. van Oost, Influence of tungsten microstructure and ion flux on deuterium plasma-induced surface modifications and deuterium retention, J. Nucl. Mater. 463 (2015) 320 - 324*
7. *L. Cheng, G. De Temmerman, P.A. Zeijlmans van Emmichoven, G. Ji, H.B. Zhou, B. Wang, Y. Yuan, Y. Zhang, G.H. Lu, Effect of neon plasma pre-irradiation on surface morphology and deuterium retention of tungsten, J. Nucl. Mater. 463 (2015) 1025 - 1028*
8. *C. Costin, V. Anita, F. Ghiorghiu, G. Popa, G. De Temmerman, M.A. van den Berg, J. Scholten, S. Brons, Cross-section analysis of the Magnum-PSI plasma beam using a 2D multi-probe system, Plasma Sources Sci. Technol. 24 (2015) 015014*
9. *O. El-Atwani, S. Gonderman, S. Suslov, M. Efe, G. De Temmerman, T. Morgan, K. Bystrov, K. Hattar, J.P. Allain, Early stage damage of ultrafine-grained tungsten materials exposed to low energy helium ion irradiation, Fusion Eng. Des. 93 (2015) 9-14*
10. *P. Fiflis, T.W. Morgan, S. Brons, G.G. van Eden, M.A. van den Berg, W. Xu, D. Curreli, D.N. Ruzic, Performance of the lithium metal infused trenches in the magnum PSI linear plasma simulator, Nucl. Fusion 55 (2015) 113004*
11. *M.H.J. 't Hoen, D. Dellasega, A. Pezzoli, M. Passoni, A.W. Kleyn, P.A. Zeijlmans van Emmichoven, Deuterium retention and surface modifications of nanocrystalline tungsten films exposed to high-flux plasma, J. Nucl. Mater. 463 (2015) 989 - 992*
12. *S.H. Hong, K.M. Kim, J.H. Song, E.N. Bang, H.T. Kim, K.S. Lee, A. Litnovsky, M. Hellwig, D.C. Seo, M.A. van den Berg et al., Toward Tungsten Plasma-Facing Components in KSTAR: Research on Plasma-Metal Wall Interaction, Fusion Sci. Technol. 68 (2015) 36-43*
13. *Y.Z. Jia, G. De Temmerman, G.N. Luo, H.Y. Xu, C. Li, B.Q. Fu, W. Liu, Surface morphology and deuterium retention in tungsten exposed to high flux D plasma at high temperatures, J. Nucl. Mater. 457 (2015) 213 - 219*
14. *Y.Z. Jia, W. Liu, B. Xu, G.N. Luo, C. Li, B.Q. Fu, G. De Temmerman, Nanostructures and pinholes on W surfaces exposed to high flux D plasma at high temperatures, J. Nucl. Mater. 463 (2015) 312 - 315*
15. *Y.Z. Jia, W. Liu, B. Xu, G.N. Luo, C. Li, S.L. Qu, T.W. Morgan, G. De Temmerman, Thermal shock behaviour of blisters on W surface during combined steady-state/pulsed plasma loading, Nucl. Fusion 55 (2015) 113015*
16. *H.T. Lee, G. De Temmerman, L. Gao, T. Schwartz-Selinger, G. Meisl, T. Höschen, Y. Ueda, Deuterium retention in tungsten exposed to mixed D + N plasma at divertor relevant fluxes in Magnum-PSI, J. Nucl. Mater. 463 (2015) 974 - 978*
17. *A. Litnovsky, M. Hellwig, D. Matveev, M. Komm, M. van den Berg, G. De Temmerman, D. Rudakov, F. Ding, G.N. Luo, K. Krieger et al., Optimization of tungsten castellated structures for the ITER divertor, J. Nucl. Mater. 463 (2015) 174 - 179*

18. *T. Loewenhoff, S. Bardin, H. Greuner, J. Linke, H. Maier, T.W. Morgan, G. Pintsuk, R.A. Pitts, B. Riccardi, G. De Temmerman, Impact of combined transient plasma/heat loads on tungsten performance below and above recrystallization temperature, Nucl. Fusion 55 (2015) 123004*
19. *T.W. Morgan, D.C.M. van den Bekerom, G. De Temmerman, Interaction of a tin-based capillary porous structure with ITER/DEMO relevant plasma conditions, J. Nucl. Mater. 463 (2015) 1256 - 1259*
20. *A.L. Neff, J.P. Allain, F. Bedoya, T.W. Morgan, G. De Temmerman, High flux irradiations of Li coatings on polycrystalline W and ATJ graphite with D, He, and He-seeded D plasmas at Magnum PSI, J. Nucl. Mater. 463 (2015) 1147 - 1151*
21. *D. Nishijima, R.P. Doerner, R.P. Seraydarian, G. De Temmerman, H.J. van der Meiden, Plasma temperature rise toward the plasma-facing surface, J. Nucl. Mater. 463 (2015) 440 - 444*
22. *M. Oya, H.T. Lee, Y. Ueda, H. Kurishita, M. Oyaidzu, T. Hayashi, N. Yoshida, T.W. Morgan, G. De Temmerman, Surface morphology changes and deuterium retention in Toughened, Fine-grained Recrystallized Tungsten under high-flux irradiation conditions, J. Nucl. Mater. 463 (2015) 1037 - 1040*
23. *A. Pezzoli, D. Dellasega, V. Russo, A. Gallo, P.A. Zeijlmans van Emmichoven, M. Passoni, Thermal annealing and exposure to divertor-like deuterium plasma of tailored tungsten oxide coatings, J. Nucl. Mater. 463 (2015) 1041 - 1044*
24. *K. Piip, G. De Temmerman, H.J. van der Meiden, A. Lissovski, J. Karhunen, M. Aints, A. Hakola, P. Paris, M. Laan, J. Likonen et al., LIBS analysis of tungsten coatings exposed to Magnum PSI ELM-like plasma, J. Nucl. Mater. 463 (2015) 919 - 922*
25. *S. Ratynskaia, P. Tolias, A. Shalpegin, L. Vignitchouk, M. de Angeli, I. Bykov, K. Bystrov, S. Bardin, F. Brochard, D. Ripamonti et al., Elastic–plastic adhesive impacts of tungsten dust with metal surfaces in plasma environments, J. Nucl. Mater. 463 (2015) 877 - 880*
26. *H. Reimerdes, G.P. Canal, B.P. Duval, B. Labit, T. Lunt, F. Nespoli, W.A.J. Vijvers, G. De Temmerman, C. Lowry, T.W. Morgan et al., Experimental investigation of neon seeding in the snowflake configuration in TCV, J. Nucl. Mater. 463 (2015) 1196 - 1199*
27. *A. Shalpegin, F. Brochard, S. Ratynskaia, P. Tolias, M. de Angeli, L. Vignitchouk, I. Bykov, S. Bardin, K. Bystrov, T. Morgan et al., Highly resolved measurements of dust motion in the sheath boundary of magnetized plasmas, Nucl. Fusion 55 (2015) 112001*
28. *I. Tanyeli, L. Marot, D. Mathys, M.C.M. van de Sanden, G.C. De Temmerman, Surface Modifications Induced by High Fluxes of Low Energy Helium Ions, Sci. Rep. 5 (2015) 9779*
29. *G. De Temmerman, T.W. Morgan, G.G. van Eden, T. de Kruif, M. Wirtz, J. Matejicek, T. Chraska, R.A. Pitts, G.M. Wright, Effect of high-flux H/He plasma exposure on tungsten damage due to transient heat loads, J. Nucl. Mater. 463 (2015) 198 - 201*
30. *D. Terentyev, G. De Temmerman, B. Minov, Y. Zayachuk, K. Lambrinou, T.W. Morgan, A. Dubinko, K. Bystrov, G. van Oost, Synergy of plastic deformation and gas retention in tungsten, Nucl. Fusion 55 (2015) 013007*
31. *D. Terentyev, G. De Temmerman, T.W. Morgan, Y. Zayachuk, K. Lambrinou, B. Minov, A. Dubinko, K. Bystrov, G. van Oost, Effect of plastic deformation on deuterium retention and release in tungsten, J. Appl. Phys. 117 (2015) 083302*
32. *M. Wirtz, S. Bardin, A. Huber, A. Kreter, J. Linke, T.W. Morgan, G. Pintsuk, M. Reinhart, G. Sergienko, I. Steudel et al., Impact of combined hydrogen plasma and transient heat loads on the performance of tungsten as plasma facing material, Nucl. Fusion 55 (2015) 123017*
33. *G.M. Wright, G.G. van Eden, L.A. Kesler, G. De Temmerman, D.G. Whyte, K.B. Woller, Characterizing the recovery of a solid surface after tungsten nano-tendril formation, J. Nucl. Mater. 463 (2015) 294 - 298*
34. *H.Y. Xu, G. De Temmerman, G.N. Luo, Y.Z. Jia, Y. Yuan, B.Q. Fu, A. Godfrey, W. Liu, Deuterium-induced nanostructure formation on tungsten exposed to high-flux plasma, J. Nucl. Mater. 463 (2015) 308 - 311*
35. *J.H. Yu, G. De Temmerman, R.P. Doerner, R.A. Pitts, M.A. van den Berg, The effect of transient temporal pulse shape on surface temperature and tungsten damage, Nucl. Fusion 55 (2015) 093027*
36. *Y. Zayachuk, A. Manhard, M.H.J. 't Hoen, W. Jacob, P.A. Zeijlmans van Emmichoven, G. van Oost, The effect of ion flux on plasma-induced modification and deuterium retention in tungsten and tungsten–tantalum alloys, J. Nucl. Mater. 464 (2015) 69-72*

Publications in other journals and conference proceedings: 1

1. *D.U.B. Aussems, K. Bystrov, M. Rasinski, L. Marot, I. Dogan, M.A. Gleeson, M.C.M. van de Sanden, Investigation of carbon microparticle synthesis using high-flux plasma exposure, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-II-7-1*

Invited lectures at conferences and meetings: 4

1. *5th International Workshop on Plasma Material Interaction Facilities for Fusion Research (PMIF), 2015/10/07, Julich, Germany, H.J.N. van Eck, Status and prospective of DIFFER's plasma-surface interactions facilities, I-4*
2. *21st ITPA Divertor and Scrape-off Layer Topical Group Meeting, 2015/06/09, Princeton, NJ, USA, T.W. Morgan, Y. Kikuchi, Vapour formation experiment on Al samples in Pilot-PSI, 6 Materials*
3. *42nd IOP Plasma Physics Conference, 2015/03/30, Milton Keynes, UK, T.W. Morgan, G. De Temmerman, Plasma-surface interactions under extreme conditions*
4. *Workshop on Advances in Materials for Fusion Application, 2015/03/23, Prague, Czech Republic, T.W. Morgan, Novel Approaches for Plasma Facing Components*

Other oral and poster presentations at (international) conferences and meetings: 23

1. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, D. Astakhov, W. Goedheer, C.J. Lee, D. Lopaev, A. Zotovich, V. Ivanov, V. Krivtsun, F. Bijkerk, Plasma probe characteristics in a low density pulsed hydrogen plasma, Oral, PA17.04*
2. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, D.U.B. Aussems, K. Bystrov, T. Morgan, H.J. van der Meiden, J. Vernimmen, M.C.M. van de Sanden, Fast measurements of carbon sputtering under transiently changing plasma flux, Poster, P1*
3. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, D.U.B. Aussems, K. Bystrov, M. Rasinski, L. Marot, I. Dogan, M.A. Gleeson, M.C.M. van de Sanden, Investigation of carbon microparticles synthesis using high-flux plasma exposure, Poster, P-II-7-1*
4. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, D.U.B. Aussems, K. Bystrov, M. Rasinski, L. Marot, I. Dogan, M.A. Gleeson, M.C.M. van de Sanden, Investigation on synthesizing carbon nanostructure using extreme plasma fluxes, Poster, A3*
5. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, D. Aussems, K. Bystrov, G. De Temmerman, M.C.M. van de Sanden, Exploratory investigation on synthesizing carbon nanostructure using extreme plasma fluxes, Poster, P08.006*
6. *15th International Conference on Plasma-facing Materials and Components for Fusion Application (PFMC-15), 2015/05/18, Aix-en-Provence, France, S. Bardin, The effect of repeated shallow melt events on tungsten thermo-mechanical properties, Poster, P-94*
7. *17th International Conference on Fusion Reactor Materials ICFRM-17, 2015/10/11, Aachen, Germany, L. Cheng, G. De Temmerman, T.W. Morgan, H. Schut, Y. Yuan, G.H. Lu, Neon-Deuterium Mixed Plasma Exposed Tungsten Studied ByPositron Annihilation Doppler Broadening And Thermal Desorption Spectroscopy, Poster, Po2-42*
8. *15th International Conference on Plasma-facing Materials and Components for Fusion Application (PFMC-15), 2015/05/18, Aix-en-Provence, France, L. Cheng, Investigation of surface morphology and deuterium retention in tungsten exposed to neon and deuterium mixture plasmas inPilot-PSI, Oral, 4th speaker 22 may*
9. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, G.G. van Eden, M.L. Reinke, B.J. Peterson, T.K. Gray, K. Mukai, R. Sano, L. Delgado-Aparicio, M.A. Jaworski, S.N. Pandya, J. Lore et al., Development of a prototype infrared imaging bolometer for NSTX-U, Poster, GP12.00098*
10. *17th International Conference on Fusion Reactor Materials ICFRM-17, 2015/10/11, Aachen, Germany, G.G. van Eden, M.A. van den Berg, K.E. Bystrov, V. Kvon, D.U.B. Aussems, M.C.M. van de Sanden, T.W. Morgan, Self-regulated plasma heat flux mitigation due to liquid Sn vapor shielding, Oral, O49*
11. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, G.G. van Eden, T.W. Morgan, D.U.B. Aussems, M.C.M. van de Sanden, Vapor shielding of Sn in Pilot-PSI, Oral, O9*
12. *FuseNet 2015 PhD Event, 2015/11/15, Prague, Czech Republic, V. Kvon, R. Al, K. Bystrov, F. Peeters, T.W. Morgan, Implementation of multipass laser absorption spectroscopy and measurements of the erosion of liquid tin in Pilot-PSI, Poster*
13. *International Symposium on Lithium Applications to Fusion ISLA-4, 2015/09/28, Granada, Spain, V. Kvon, R. Al, K. Bystrov, F. Peeters, T.W. Morgan, Implementation of multipass laser absorption spectroscopy and measurements of the erosion of liquid tin in Pilot-PSI, Poster*

14. *15th International Conference on Plasma-facing Materials and Components for Fusion Application (PFMC-15), 2015/05/18, Aix-en-Provence, France, V. Kvon, T.W. Morgan, D.C.M. van den Bekerom, G. De Temmerman, Cavity-Ring-Down-Spectroscopy measurements of the erosion of tin towards its use in the next generation fusion reactors, Poster, P-24*
15. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, T. Lunt, W.A.J. Vijvers, G.P. Canal, B. Duval, Y. Feng, B. Labit, P. McCarthy, H. Reimerdes, M. Wischmeier, Optimisation of the Snowflake divertor by means of EMC3-Eirene simulations and experiments, Oral, O4.115*
16. *Joint Annual Meeting of WPJET2 and WPPFC, 2015/11/23, Culham, UK, H.J. van der Meiden, Collective Thomson scattering in Pilot-PSI, Oral*
17. *5th International Workshop on Plasma Material Interaction Facilities for Fusion Research (PMIF), 2015/10/07, Julich, Germany, H.J. van der Meiden, Collective Thomson scattering in Pilot-PSI, Oral, IV-3*
18. *5th International Workshop on Plasma Material Interaction Facilities for Fusion Research (PMIF), 2015/10/07, Julich, Germany, T.W. Morgan, Overview of recent results from the Magnum-PSI and Pilot-PSI linear plasma devices, Oral, III-4*
19. *International Symposium on Lithium Applications to Fusion ISLA-4, 2015/09/28, Granada, Spain, T.W. Morgan, G.G. van Eden, M.A. van den Berg, M.C.M. van de Sanden, V. Kvon, D.U.B. Aussems, K. Bystrov, Self-regulated plasma heat flux mitigation due to liquid Sn vapour shielding, Oral*
20. *15th International Conference on Plasma-facing Materials and Components for Fusion Application (PFMC-15), 2015/05/18, Aix-en-Provence, France, T. Morgan, G.G. van Eden, S. Bardin, I. Tanyeli, G. De Temmerman, M.A. van den Berg, R.A. Pitts, K. Bystrov, M.C.M. van de Sanden, V. Kvon et al., Study of power deposition on misaligned castellated tungsten blocks in the Magnum-PSI linear device, Poster, P-101*
21. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, A.L. Neff, J.P. Allain, K. Bystrov, T.W. Morgan, The role of lithium thin-film coatings on W surface morphology evolution under high-fluence and high temperature He irradiation, Oral, NM11.00008*
22. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, S. Ratynskaia, P. Tolias, M. de Angeli, G.C. De Temmerman, A. Shalpegin, D. Ripamonti, I. Bykov, F. Brochard, S. Bardin, K. Bystrov et al., Dust remobilization under normal and ELM-like conditions: controlled experiments in Pilot-PSI, Poster, P1.155*
23. *17th International Conference on Fusion Reactor Materials ICFRM-17, 2015/10/11, Aachen, Germany, X.L. Zhu, Y. Zhang, Y. Yuan, L. Cheng, G. De Temmerman, T.W. Morgan, L. Shi, G.H. Lu, Suppression Of Blistering For Irradiated Tungsten Exposed To D Plasmas, Poster, Po3-44*

Awards: 1

1. *D.U.B. Aussems, ISPC 2015 Antwerp conference Poster Prize, 2015*

Positions: 2

1. *H. van der Meiden, Member of the Local Organizing Committee of the 17th International Conference on Fusion Reactor Materials ICFRM 2015, Aachen, Germany, 2015*
2. *T.W. Morgan, Member of the Technical Program Committee of the 17th International Conference on Fusion Reactor Materials ICFRM 2015, Aachen, Germany, 2015*

Public events: 1

1. *AUC Energy Transition Conference, Amsterdam University College, 2015/05/06, Amsterdam, Netherlands, T.W. Morgan, Fusion Energy: Why, How, When?*

Media: 9

1. *Gaat het eindelijk lukken: energie opwekken door kernfusie?, BNR Nieuwsradio, 2015/11/19, item with T.W. Morgan*
2. *Bouncing dust, iter.org, 2015/10/05, item with K. Bystrov*
3. *Nieuwe krachtbron: kernfusie, De Telegraaf, 2015/11/14*
4. *Groei nanostructuren te voorspellen, Technisch Weekblad, 2015/05/15*
5. *Dutch plasma surface interaction beams up for fusion, Fusion in Europe (EUROfusion newsletter), 2015/12/10, item with T.W. Morgan*
6. *DIFFER aan de Dommel, Cursor, 2015/05/21, item with T.W. Morgan, A. Bieberle, D.M.S. Ronden, G.J. van Rooij*
7. *DIFFER-onderzoeker doorgrondt groei van nanostructuren aan metaaloppervlak, Solar Magazine, 2015/05/01, item with I. Tanyeli, M.C.M. van de Sanden*
8. *Materials researcher fathoms growth of nanostructures on metal surface, phys.org, 2015/04/29, item with I. Tanyeli, M.C.M. van de Sanden*
9. *Hitte tot tienduizenden graden op campus TU/e, e52.nl, 2015/10/06, item with F.T.M.E. de Vries*

Theme Fusion Energy - fusion physics

PhD theses: 3

1. *M. van Berkel, Estimation of heat transport coefficients in fusion plasmas, PhD thesis at the Eindhoven University of Technology, 2015/06/02, Promotor: M.R. de Baar, G. Vandersteen*
2. *B. van Es, Numerical methods for anisotropic diffusion, PhD thesis at the Eindhoven University of Technology, 2015/04/22, Promotor: B. Koren*
3. *J.N. Hawke, Measurement of electron kinetic profiles in the divertor region and during magnetic perturbations using Thomson scattering, PhD thesis at the Eindhoven University of Technology, 2015/09/23, Promotor: A.J.H. Donné*

Publications in peer-reviewed scientific journals: 40

1. *F. Albajar, G. Aiello, S. Alberti, F. Arnold, K. Avramidis, M. Bader, R. Batista, R. Bertizzolo, T. Bonicelli, F. Braunmueller et al., Status of Europe's contribution to the ITER EC system, EPJ Web Conf. 87 (2015) 04004*
2. *A. Alpers, P. Gritzmann, D. Moseev, M. Salewski, 3D particle tracking velocimetry using dynamic discrete tomography, Comput. Phys. Commun. 187 (2015) 130-136*
3. *H. Arnichand, R. Sabot, S. Hacquin, A. Krämer-Flecken, C. Bourdelle, J. Citrin, X. Garbet, J.C. Giacalone, R. Guirlet, J.C. Hillesheim et al., Discriminating the trapped electron modes contribution in density fluctuation spectra, Nucl. Fusion 55 (2015) 093021*
4. *W. Biel, M. de Baar, A. Dinklage, F. Felici, R. König, H. Meister, W. Treutterer, R. Wenninger, DEMO diagnostics and burn control, Fusion Eng. Des. 96–97 (2015) 8-15*
5. *A.V. Bogomolov, I.G.J. Classen, J.E. Boom, A.J.H. Donné, E. Wolfrum, R. Fischer, E. Viezzer, P. Schneider, P. Manz, W. Suttrop et al., Study of the ELM fluctuation characteristics during the mitigation of type-I ELMs, Nucl. Fusion 55 (2015) 083018*
6. *N. Bonanomi, P. Mantica, G. Szepesi, N. Hawkes, E. Lerche, P. Migliano, A. Peeters, C. Sozzi, M. Tsalas, D. van Eester et al., Trapped electron mode driven electron heat transport in JET: experimental investigation and gyro-kinetic theory validation, Nucl. Fusion 55 (2015) 113016*
7. *C. Bourdelle, L. Chôné, N. Fedorczak, X. Garbet, P. Beyer, J. Citrin, E. Delabie, G. Dif-Pradalier, G. Fuhr, A. Loarte et al., L to H mode transition: parametric dependencies of the temperature threshold, Nucl. Fusion 55 (2015) 073015*
8. *G.P. Canal, T. Lunt, H. Reimerdes, B.P. Duval, B. Labit, W.A.J. Vijvers, TCV team, Enhanced -->E*-->B drift effects in the TCV snowflake divertor, Nucl. Fusion 55 (2015) 123023*
9. *C.D. Challis, J. Garcia, M. Beurskens, P. Buratti, E. Delabie, P. Drewelow, L. Frassinetti, C. Giroud, N. Hawkes, J. Hobirk et al., Improved confinement in JET high β plasmas with an ITER-like wall, Nucl. Fusion 55 (2015) 053031*
10. *I.T. Chapman, J. Adamek, R.J. Akers, S. Allan, L. Appel, O. Asunta, M. Barnes, N. Ben Ayed, J. Hawke, T. Bigelow et al., Overview of MAST results, Nucl. Fusion 55 (2015) 104008*
11. *J. Citrin, J. Garcia, T. Görler, F. Jenko, P. Mantica, D. Told, C. Bourdelle, D.R. Hatch, G.M.D. Hogeweij, T. Johnson et al., Electromagnetic stabilization of tokamak microturbulence in a high-β regime, Plasma Phys. Control. Fusion 57 (2015) 014032*
12. *J. Citrin, S. Breton, F. Felici, F. Imbeaux, T. Aniel, J.F. Artaud, B. Baiocchi, C. Bourdelle, Y. Camenen, J. Garcia, Real-time capable first principle based modelling of tokamak turbulent transport, Nucl. Fusion 55 (2015) 092001*
13. *S. Fietz, A. Bergmann, I. Classen, M. Maraschek, M. Garcia-Munoz, W. Suttrop, H. Zohm, ASDEX Upgrade team, Influence of externally applied magnetic perturbations on neoclassical tearing modes at ASDEX Upgrade, Nucl. Fusion 55 (2015) 013018*
14. *J. Garcia, C. Challis, J. Citrin, H. Doerk, G. Giruzzi, T. Görler, F. Jenko, P. Maget, JET Contributors, Key impact of finite-beta and fast ions in core and edge tokamak regions for the transition to advanced scenarios, Nucl. Fusion 55 (2015) 053007*
15. *S.N. Gerasimov, P. Abreu, M. Baruzzo, V. Drozdov, A. Dvornova, J. Havlicek, T.C. Hender, O. Hronova, M. Tsalas, U. Kruezi et al., JET and COMPASS asymmetrical disruptions, Nucl. Fusion 55 (2015) 113006*
16. *A. Giroud, S. Jachmich, P. Jacquet, A. Järvinen, E. Lerche, F. Rimini, L. Aho-Mantila, N. Aiba, I. Balboa, P. da Silva Aresta Belo et al., Progress at JET in integrating ITER-relevant core and edge plasmas within the constraints of an ITER-like wall, Plasma Phys. Control. Fusion 57 (2015) 035004*
17. *J.P. Graves, M. Lennholm, I.T. Chapman, E. Lerche, M. Reich, B. Alper, V. Bobkov, R. Dumont, J.M. Faustin, P. Jacquet et al., Sawtooth control in JET with ITER relevant low field side resonance ion cyclotron resonance heating and ITER-like wall, Plasma Phys. Control. Fusion 57 (2015) 014033*
18. *G.M.D. Hogeweij, G. Calabro, A.C.C. Sips, C.F. Maggi, G.M. De Tommasi, E. Joffrin, A. Loarte, F. Maviglia, J. Mlynar, F.G. Rimini et al., ITER-like current ramps in JET with ILW: experiments, modelling and consequences for ITER, Nucl. Fusion 55 (2015) 013009*
19. *G.M.D. Hogeweij, V. Leonov, J. Schweinzer, A.C.C. Sips, C. Angioni, G. Calabro, R. Dux, A. Kallenbach, E. Lerche, C. Maggi et al., Impact of W on scenario simulations for ITER, Nucl. Fusion 55 (2015) 063031*
20. *W. Kasparek, B. Plaum, C. Lechte, Z. Wu, H. Wang, M. Maraschek, J. Stober, H. van den Brand, W. Bongers, D. Wagner et al., Development of Resonant Diplexers for high-power ECRH – Status, Applications, Plans, EPJ Web Conf. 87 (2015) 04010*
21. *P.T. Lang, H. Meyer, G. Birkenmeier, A. Burckhart, I.S. Carvalho, E. Delabie, L. Frassinetti, G. Huijsmans, G. Kocsis, A. Loarte et al., ELM control at the L -> H transition by means of pellet pacing in the ASDEX Upgrade and JET all-metal-wall tokamaks, Plasma Phys. Control. Fusion 57 (2015) 045011*
22. *K.D. Lawson, M. Groth, P. da Silva Aresta Belo, S. Brezinsek, G. Corrigan, A. Czarnecka, E. Delabie, P. Drewelow, D. Harting, I. Ksiββek et al., Improved EDGE2D-EIRENE simulations of JET ITER-like wall L-mode discharges utilising poloidal VUV/visible spectral emission profiles, J. Nucl. Mater. 463 (2015) 582 - 585*
23. *M. Lennholm, P.S. Beaumont, I.S. Carvalho, I.T. Chapman, R. Felton, D. Frigione, L. Garzotti, A. Goodyear, J. Graves, D. Grist et al., ELM frequency feedback control on JET, Nucl. Fusion 55 (2015) 063004*
24. *B. Maljaars, F. Felici, M.R. de Baar, J. van Dongen, G.M.D. Hogeweij, P.J.M. Geelen, M. Steinbuch, Control of the tokamak safety factor profile with time-varying constraints using MPC, Nucl. Fusion 55 (2015) 023001*
25. *P. Manz, P. Lauber, V.E. Nikolaeva, T. Happel, F. Ryter, G. Birkenmeier, A. Bogomolov, G.D. Conway, M.E. Manso, M. Maraschek et al., Geodesic oscillations and the weakly coherent mode in the I-mode of ASDEX Upgrade, Nucl. Fusion 55 (2015) 083004*
26. *T. Nakano, A.E. Shumack, C.F. Maggi, M. Reinke, K.D. Lawson, I. Coffey, T. Pütterich, S. Brezinsek, B. Lipschultz, G.F. Matthews et al., Determination of tungsten and molybdenum concentrations from an x-ray range spectrum in JET with the ITER-like wall configuration, J. Phys. B 48 (2015) 144023*
27. *S.K. Nielsen, M. Stejner, J. Rasmussen, A.S. Jacobsen, S.B. Korsholm, F. Leipold, M. Maraschek, F. Meo, P.K. Michelsen, D. Moseev et al., Measurements of the fast-ion distribution function at ASDEX upgrade by collective Thomson scattering (CTS) using active and passive views, Plasma Phys. Control. Fusion 57 (2015) 035009*
28. *T. Omori, F. Albajar, T. Bonicelli, G. Carannante, M. Cavinato, F. Cismondi, C. Darbos, G. Denisov, D. Farina, D.M.S. Ronden et al., Progress in the ITER electron cyclotron heating and current drive system design, Fusion Eng. Des. 96–97 (2015) 547 - 552*
29. *J. van Oosterhout, J.G.W. Wildenbeest, H. Boessenkool, C.J.M. Heemskerk, M.R. de Baar, F.C.T. van der Helm, D.A. Abbink, Haptic Shared Control in Tele-Manipulation: Effects of Inaccuracies in Guidance on Task Execution, IEEE Trans. Haptics 8 (2015) 164-175*
30. *V. Parail, G. Corrigan, P. da Silva Aresta Belo, E. de la Luna, D. Harting, F. Koechl, T. Koskela, A. Meigs, E. Militello-Asp, M. Romanelli et al., Coupled core-SOL modelling of W contamination in H-mode JET plasmas with ITER-like wall, J. Nucl. Mater. 463 (2015) 611 - 614*
31. *M. Salewski, B. Geiger, W.W. Heidbrink, A.S. Jacobsen, S.B. Korsholm, F. Leipold, J. Madsen, D. Moseev, S.K. Nielsen, J. Rasmussen et al., Doppler tomography in fusion plasmas and astrophysics, Plasma Phys. Control. Fusion 57 (2015) 014021*
32. *K. Slabkowska, J. Rzadkiewicz, L. Syrocki, E. Szymanska, A. Shumack, M. Polasik, N.R. Pereira, JET Contributors, On the interpretation of high-resolution x-ray spectra from JET with an ITER-like wall, J. Phys. B 48 (2015) 144028*
33. *P. Tamain, E. Joffrin, H. Bufferand, A. Järvinen, S. Brezinsek, G. Ciraolo, E. Delabie, L. Frassinetti, C. Giroud, M. Groth et al., Investigation of the influence of divertor recycling on global plasma confinement in JET ITER-like wall, J. Nucl. Mater. 463 (2015) 450 - 454*
34. *M. Turnyanskiy, R. Neu, R. Albanese, R. Ambrosino, C. Bachmann, S. Brezinsek, A.J.H. Donné, T. Eich, G. Falchetto, G. Federici et al., European roadmap to the realization of fusion energy: Mission for solution on heat-exhaust systems, Fusion Eng. Des. 96–97 (2015) 361-364*
35. *E. Westerhof, J. Pratt, B. Ayten, Closure of the single fluid magnetohydrodynamic equations in presence of electron cyclotron current drive, EPJ Web Conf. 87 (2015) 01005*
36. *D. Yadykin, L. Frassinetti, E. Delabie, I.T. Chapman, S. Gerasimov, M. Kempenaars, F.G. Rimini, Studies of the non-axisymmetric plasma boundary displacement in JET in presence of externally applied magnetic field, Plasma Phys. Control. Fusion 57 (2015) 104003*
37. *R. Zagorski, I. Voitsekhovitch, I. Ivanova-Stanik, F. Köchl, P. da Silva Aresta Belo, E. Fable, J. Garcia, L. Garzotti, J. Hobirk, G.M.D. Hogeweij et al., Integrated core–SOL–divertor modelling for ITER including impurity: effect of tungsten on fusion performance in H-mode and hybrid scenario, Nucl. Fusion 55 (2015) 053032*

38. *D. Zhelyazov, D. Han-Kwan, J.D.M. Rademacher, Global Stability and Local Bifurcations in a Two-Fluid Model for Tokamak, SIAM J. Appl. Dyn. Syst. 14 (2015) 730–763*
39. *J. Zhu, J. Gao, A. Ehn, M. Alden, Z. Li, D. Moseev, Y. Kusano, M. Salewski, A. Alpers, P. Gritzmann et al., Measurements of 3D slip velocities and plasma column lengths of a gliding arc discharge, Appl. Phys. Lett. 106 (2015) 044101*
40. *H. Zohm, ASDEX Upgrade team, EUROfusion MST1 Team, M.R. de Baar, Recent ASDEX Upgrade research in support of ITER and DEMO, Nucl. Fusion 55 (2015) 104010*

Publications in other journals and conference proceedings: 12

1. *M. Bergamini Roedler, F.C. Schüller, Cor Bobeldijk (1936–2014), Emeritus Scientific Editor of Nuclear Fusion, Nuclear Fusion 55 (2015) 010401*
2. *T.C. Blanken, F. Felici, M.R. de Baar, W. Heemels, TCV team, Model-based reconstruction and feedback control of the plasma particle, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) P2.151*
3. *A. Bogomolov, I.G.J. Classen, J.E. Boom, A.J.H. Donné, E. Wolfrum, M. Dunne, W. Suttrop, N.C. Luhmann, Jr., ASDEX Upgrade team, The effect of nitrogen seeding on ELM filaments, Proceedings of 42th EPS Conference on Plasma Physics 39E (2015) P2.112*
4. *N. Bonanomi, J. Citrin, P. Mantica, JET Contributors, Impact of electron scale modes on electron heat transport in the JET tokamak, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) P2.122*
5. *H. van den Brand, M.R. de Baar, B.A. Hennen, J.W. Oosterbeek, Combined electron cyclotron emission and heating for the suppression of magnetic islands in fusion plasmas, Proceedings of Science 240 (2015) 002*
6. *J. Citrin, S. Breton, F. Felici, F. Imbeaux, T. Aniel, J.F. Artaud, B. Baiocchi, C. Bourdelle, Y. Camenen, J. Garcia, Real-time capable first principle based modelling of tokamak turbulent transport, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) P1.166*
7. *E. Delabie, C.F. Maggi, H. Meyer, T.M. Biewer, C. Bourdelle, M. Brix, I. Carvalho, A. Chankin, P. Drewelow, C. Guillemaut et al., The relation between divertor conditions and the L-H threshold on JET, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) O3.113*
8. *V. Igochine, P. Piovesan, P. Lauber, E. Strumberger, W. Suttrop, D. Yadykin, A. Bogomolov, T. Bolzonella, I.G.J. Classen, M. Dunne et al., Beta limit and plasma response to n=1 perturbations in ASDEX Upgrade, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) P1.114*
9. *A. Kappatou, R.M. McDermott, C. Angioni, T. Pütterich, R. Dux, R.J.E. Jaspers, E. Viezzer, M. Cavedon, R. Fischer, M. Willensdorfer et al., Helium transport investigations at ASDEX Upgrade, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) O4.128*
10. *E. Maljaars, H. van den Brand, F. Felici, C. Rapson, W. Treutterer, O. Sauter, M.R. de Baar, Simultaneous control of plasma profiles and neoclassical tearing modes with actuator management in tokamaks, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) P1.184*
11. *B. Maljaars, F. Felici, M. de Baar, M. Steinbuch, Model Predictive Control of the Current Density Distribution and Stored Energy in Tokamak Fusion Experiments using Trajectory Linearizations, IFAC-PapersOnLine 48 (2015) 314-321*
12. *W. Vijvers, G.P. Canal, B.P. Duval, B. Labit, B. Lipschultz, T. Lunt, F. Nespoli, H. Reimerdes, U. Sheikh, C. Theiler et al., Advanced divertor research on the TCV tokamak, Proceedings 42th EPS Conference on Plasma Physics 39E (2015) P2.150*

Invited lectures at conferences and meetings: 16

1. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, H. Arnichand, J. Citrin, R. Sabot, S. Hacquin, A. Krämer-Flecken, J. Bernardo, C. Bourdelle, X. Garbet, J.C. Giacalone, R. Guirlet et al., Evidence of trapped electron mode contribution to fluctuation spectra and first applications to turbulence studies, I4.115*
2. *Third IAEA DEMO Programme Workshop (DPW-3), 2015/05/11, Hefei, China, M.R. de Baar, Prospects for model based plasma control in nuclear fusion reactors*
3. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, C. Bourdelle, J. Citrin, B. Baiocchi, A. Casati, P. Cottier, X. Garbet, F. Imbeaux, Turbulent transport in tokamak plasmas:bridging theory and experiment, I4.116*

4. *1st EPS Conference on Plasma Diagnostics (ECPD 2015), 2015/04/14, Frascati, Italy, H. van den Brand, M.R. de Baar, B.A. Hennen, J.W. Oosterbeek, W.A. Bongers, E. Westerhof, W. Kasparek, N. Doelman, W. Klop, L. Giannone et al., Combined Electron Cyclotron Emission And Heating For The Suppression Of Magnetic Islands In Fusion, I1.2*
5. *7th IAEA Technical Meeting on Theory of Plasma Instabilities, 2015/03/04, Frascati, Italy, J. Citrin, J. Garcia, T. Görler, F. Jenko, P. Mantica, D. Told, C. Bourdelle, H. Doerk, D.R. Hatch, G.M.D. Hogeweij et al., Fast ion enhanced nonlinear electromagnetic stabilization of tokamak microturbulence, I-8*
6. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, H. Doerk, C. Challis, J. Citrin, M. Dunne, F. Jenko, J. Garcia, F. Ryter, P.A. Schneider, E. Wolfrum, ASDEX Upgrade team et al., Turbulence stabilization due to high beta and fast ions inhigh-performance plasmas at ASDEX Upgrade and JET, Oral 8/10 9:50*
7. *17th International Conference on Fusion Reactor Materials ICFRM-17, 2015/10/11, Aachen, Germany, A.J.H. Donné, S. Brezinsek, M. Rieth, M. Rubel, Materials Research in the European Fusion Roadmap, Keynote lecture*
8. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, A.J.H. Donné, Strategy and challenges of the EU Fusion Programme*
9. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, A.J.H. Donné, Diagnosing the Fusion Roadmap: From present machines, via ITER to DEMO*
10. *PhDiaFusion Summer School, 2015/06/16, Bezmiechova, Poland, A.J.H. Donné, Diagnosing the fusion roadmap*
11. *4th EIROforum Summer School on Instrumentation, 2015/06/15, Garching, Germany, A.J.H. Donné, Diagnosing the fusion roadmap*
12. *1st EPS Conference on Plasma Diagnostics (ECPD 2015), 2015/04/14, Frascati, Italy, M.Y. Kantor, A.J.H. Donné, Thomson scattering with multi-pass intra-cavity laser system for the study of fast changing structures in fusion plasma, I4.4*
13. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, A.E. Shumack, J. Rzadkiewicz, T. Nakano, M. Chernyshova, T. Czarski, S. Dalley, N. Hawkes, K. Jakubowska, G. Kasprowicz, E. Kowalska-Strzeciwilk et al., Diagnosing JET heavy impurities, M2*
14. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, W. Vijvers, Evidence for enhanced cross-field transport mechanisms in the TCV Snowflake divertor, VI2.00002*
15. *European Fusion Theory Conference EFTC 2015, 2015/10/05, Lisbon, Portugal, E. Westerhof, Modeling of electron cyclotron current drive applied for neoclassical tearing mode stabilization, O17*
16. *Lorentz Center Workshop on Integrated plasma Modelling of Solar Flares, 2015/05/18, Leiden, Netherlands, E. Westerhof, Integrated Modelling of Tokamaks: a European perspective*

Other oral and poster presentations at (international) conferences and meetings: 62

1. *20th MHD Stability Control Workshop, 2015/11/22, Princeton, NJ, USA, M. de Baar, H. van den Brand, F. Felici, A. Gomes, M. Lauret, E. Maljaars, E. Westerhof, G. Witvoet, Control oriented modelling for tearing mode and sawtooth control, Oral*
2. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, M.R. de Baar, Flying a tokamak, Oral*
3. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, H.J. de Blank, Guiding center motion, Oral*
4. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, H.J. de Blank, MHD instabilities in tokamaks, Oral*
5. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, H.J. de Blank, Plasma equilibrium in tokamaks, Oral*
6. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, T.C. Blanken, F. Felici, M.R. de Baar, W. Heemels, TCV team, Model-based reconstruction and feedback control of the plasma particle, Poster, P2.151*
7. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, A. Bogomolov, I.G.J. Classen, J.E. Boom, A.J.H. Donné, E. Wolfrum, M. Dunne, W. Suttrop, N.C. Luhmann, Jr., ASDEX Upgrade team, Evolution of ELM signatures related to application of RMP coils and nitrogen seeding, Poster, P2.112*
8. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, N. Bonanomi, J. Citrin, P. Mantica, JET Contributors, Impact of electron scale modes on electron heat transport in the JET tokamak, Poster, P2.122*

9. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, S. Breton, J. Citrin, F. Felici, F. Imbeaux, T. Aniel, J.F. Artaud, B. Baiocchi, C. Bourdelle, Y. Camenen, J. Garcia, Real-time capable first principle based modelling of tokamak turbulent transport, Poster, P1.166*
10. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, J. Citrin, S. Breton, F. Felici, F. Imbeaux, Realtime capable first principle based modelling of tokamak turbulent transport, Oral, PP12.00057*
11. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, J. Citrin, R. Bravenec, Benchmarking of the Gyrokinetic Microstability Codes GENE, GS2, and GYRO over a Range of Plasma Parameters, Oral, PP12.00078*
12. *8th Plasma Kinetics Working Group Meeting, 2015/07/21, Vienna, Austria, J. Citrin, S. Breton, F. Felici, F. Imbeaux, T. Aniel, J.F. Artaud, B. Baiocchi, C. Bourdelle, Y. Camenen, J. Garcia, Real-time capable first principle based modelling of tokamak turbulent transport, Oral*
13. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, J. Citrin, J. Garcia, T. Görler, F. Jenko, P. Mantica, D. Told, C. Bourdelle, D.R. Hatch, G.M.D. Hogeweij, T. Johnson et al., Stabilization of tokamak turbulence by fast ions, Oral, F01.04*
14. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, I. Classen, B. Vanovac, C. Domier, N. Luhmann, A. Bogomolov, W. Suttrop, B. Tobias, 3D ELM fluctuation measurements with the new dual array ECE-Imaging diagnostic on ASDEX Upgrade, Poster, JP12.00114*
15. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, E. Delabie, C.F. Maggi, H. Meyer, T.M. Biewer, C. Bourdelle, M. Brix, I. Carvalho, A. Chankin, P. Drewelow, C. Guillemaut et al., The relation between divertor conditions and the L-H threshold on JET, Oral, O3.113*
16. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, H. Doerk, C. Challis, J. Citrin, M. Dunne, F. Jenko, J. Garcia, F. Ryter, P.A. Schneider, E. Wolfrum, ASDEX Upgrade team et al., Turbulence stabilization due to high beta and fast ions inhigh-performance plasmas at ASDEX Upgrade and JET, Poster, P1.153*
17. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, A.J.H. Donné, S. Cowley, T. Jones, X. Litaudon, Risk mitigation for ITER by a prolonged and joint international operation of JET, Oral, TO6.00004*
18. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, F. Felici, B. Maljaars, J. van Dongen, D. Hogeweij, P. Geelen, Numerical optimization of actuator trajectories for ITER hybrid scenario profile evolution, Oral, PA17.05*
19. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, S. Fietz, R. Coelho, I. Classen, M. Maraschek, W. Suttrop, H. Zohm, ASDEX Upgrade team, Study of suppressed tearing modes seeded with non-axsisymmetricmagnetic perturbation fields at the ASDEX Upgrade tokamak, Poster, P1.123*
20. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, L. Frassinetti, M.N.A. Beurskens, S. Saarelma, J.E. Boom, E. Delabie, J. Flanagan, M. Kempenaars, C. Giroud, P. Lomas, L. Meneses et al., Confinement and pedestal in dimensionless collisionality scans of low triangularity H-mode plasmas in JET-ILW, Poster, P2.130*
21. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, S. Freethy, G. Conway, I. Classen, A. Creely, A. White, T. Happel, B. Vanovac, Development progress of Correlation ECE and nT cross-phase angle diagnostics for ASDEX-Upgrade, Poster, JP12.00113*
22. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, D. Frigione, C. Challis, J. Garcia, J. Hobirk, B. Alper, G. Artaserse, M. Baruzzo, E. Belonohy, A. Brett, M. Tsalas et al., Overview of hybrid development in JET with ITER-Like Wall, Poster, P2.116*
23. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, M. Garcia-Munoz, M.A. van Zeeland, S.E. Sharapov, I.G.J. Classen, V. Bobkov, J. Galdon-Quiroga, B. Geiger, V. Igochine, P. Lauber, N. Lazanyi et al., Impact of localized ECRH on NBI driven Alfven eigenmodes in the ASDEX Upgrade tokamak, Poster, P1.150*
24. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, H. Goedbloed, The MHD spectral web: Connecting all instabilities of stationary plasmas, Oral, UO5.00001*
25. *12th International Reflectometry Workshop, 2015/05/18, Jülich, Germany, S. Hacquin, J. Citrin, H. Arnichand, R. Sabot, C. Bourdelle, X. Garbet, Tore Supra team, Reflectometry simulations using gyrokinetic code data for study of quasi-coherent modes, Oral*
26. *2nd Frontiers in Computational Physics Conference: Energy Sciences, 2015/06/03, Zurich, Switzerland, J.W. Haverkort, G. Huijsmans, H.J. de Blank, B. Koren, A finite-element method for the full viscoresistive magnetohydrodynamic equations, application to tokamak plasma dynamics, Oral*
27. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, J. Heres, J.L. Pratt, E. Westerhof, Nonlinear growth of tearing modes: validating the generalized Rutherford equation, Poster, B20*
28. *European Fusion Theory Conference EFTC 2015, 2015/10/05, Lisbon, Portugal, D. Hogeweij, C. Bourdelle, J. Citrin, P. Huynh, I. Ivanova-Stanik, M. Sertoli, ITM-TF contributors, Tracer transport with multiple W charge states in ASDEX Upgrade, Poster, P2.11*
29. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, G.M.D. Hogeweij, Degraded confinement and turbulence in tokamak experiments, Oral*
30. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, V. Igochine, P. Piovesan, P. Lauber, E. Strumberger, W. Suttrop, D. Yadykin, A. Bogomolov, T. Bolzonella, I.G.J. Classen, M. Dunne et al., Beta limit and plasma response to n=1 perturbations in ASDEX Upgrade, Poster, P1.114*
31. *14th IAEA Technical Meeting (TM) on Energetic Particles in Magnetic Confinement Systems, 2015/09/01, Vienna, Austria, F. Jaulmes, B. Geiger, T. Odstrcil, M. Weiland, M. Salewski, A.S. Jacobsen, J. Rasmussen, M. Stejner, S.K. Nielsen, E. Westerhof et al., Numerical and experimental study of the redistribution of energetic and impurity ions by sawteethat ASDEX Upgrade, Poster*
32. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, F. Jaulmes, E. Westerhof, Consequences of sawtooth reconnection on fast ions in fusion experiments, Oral, PA17.06*
33. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, A. Kappatou, R.M. McDermott, C. Angioni, T. Pütterich, R. Dux, R.J.E. Jaspers, E. Viezzer, M. Cavedon, R. Fischer, M. Willensdorfer et al., Helium transport investigations at ASDEX Upgrade, Oral, O4.128*
34. *International workshop on Models and Data for Plasma-Material Interaction in Fusion Devices MoD-PMI 2015, 2015/05/25, Marseille, France, T.P.C. Klaver, I. Tanyeli, E. Westerhof, B.J. Thijsse, Penetration of He plasma ions into W fuzz, Poster, P-7*
35. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, T.P.C. Klaver, I. Tanyeli, E. Westerhof, Comparing He ion energy transfer to W and Fe surfaces through molecular dynamics simulations, Poster, A13*
36. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, T.P.C. Klaver, S.E. Zhu, M.H.F. Sluiter, G.C.A.M. Janssen, Wrinkles in graphene on Cu surfaces, Poster, P05.014*
37. *20th Workshop on MHD Stability Control MHD2015, 2015/11/22, Princeton, GA, USA, M. Lauret, Control oriented nonlinear modeling of the sawtooth oscillation, Oral, Day1 14:00*
38. *57th Annual Meeting of the APS Division of Plasma Physics, 2015/11/16, Savannah, GA, USA, M. Lauret, E. Schuster, M. de Baar, F. Felici, W. Heemels, A. Gomes, T. Goodman, D. Kim, O. Sauter, G. Vandersteen et al., Sawtooth period control by power modulation, Oral, TO6.00003*
39. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, W. Lu, H.J. de Blank, P.W.C. Groen, Modeling of fusion plasma exhaust and linear plasma jets with high flux and density, Poster, A17*
40. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, E. Maljaars, H. van den Brand, F. Felici, C. Rapson, W. Treutterer, O. Sauter, M.R. de Baar, Simultaneous control of plasma profiles and neoclassical tearing modes with actuator management in tokamaks, Poster, P1.184*
41. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, S. Moradi, I. Pusztai, J. Citrin, H.T. Kim, I. Lupelli, JET Contributors, Global vs local gyro-kinetic studies of core micro-instabilities in JET hybrid discharges with ITER like wall, Poster, P2.110*
42. *2015 Sherwood Fusion Theory Conference, Courant Institute, 2015/03/16, New York, NY, US, S. Moradi, I. Pusztai, J. Citrin, H.T. Kim, I. Lupelli, JET Contributors, Global vs local gyro-kinetic studies of core micro-instabilities in JET hybrid discharges with ITER like wall, Poster*
43. *12th International Symposium on Fusion Nuclear Technology ISFNT-12, 2015/09/14, Jeju Island, Korea, S. Pak, M.S. Cheon, C.R. Seon, V. Udintsev, T. Giacomin, N. Yukhnov, L. Bertalot, J.F. Koning, D.M.S. Ronden, C.J.M. Heemskerk et al., Engineering Issues on the Diagnostic Port Integration in ITER Upper Port 18, Poster, P1.120*
44. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, P. Piovesan, V. Igochine, Y.Q. Liu, M. Maraschek, L. Marelli, D. Ryan, W. Suttrop, D. Yadykin, A. Bogomolov, I.G.J. Classen et al., High-resolution internal measurements of 3D plasma response for model validation in high-beta plasmas, Poster, P1.144*
45. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, C. Piron, F. Felici, D. Kim, C. Rapson, M. Reich, O. Sauter, W. Treutterer, H. van den Brand, ASDEX Upgrade team, C. Finotti et al., Real-time simulation of internal profiles in the presence of sawteeth using the RAPTOR code and applications to ASDEX Upgrade and RFX-mod, Poster, P1.145*
46. *1st EPS Conference on Plasma Diagnostics (ECPD 2015), 2015/04/14, Frascati, Italy, S. Ratynskaia, G. Dilecce, P. Tolias, H.J. van der Meiden, U. de Angelis, BABE; A Quiesent Discharge For Thermal Fluctuation Studies, Poster, P1.11*
47. *12th International Symposium on Fusion Nuclear Technology ISFNT-12, 2015/09/14, Jeju Island, Korea, D.M.S. Ronden, M. de Baar, R. Chavan, T. Goodman, C.J.M. Heemskerk, M.A. Henderson, J.F. Koning, T. Omori, J. van Oosterhout, G. Saibene et al., Maintenance & Design Concepts of the ITER EC&H CD Port Cell Components, Poster, P1.121*

48. *12th International Reflectometry Workshop, 2015/05/18, Jülich, Germany, R. Sabot, H. Arnichand, S. Hacquin, A. Krämer-Flecken, X. Garbet, C. Bourdelle, J. Citrin, J.C. Giacalone, G. Hornung, C. Bottereau et al., Quasi coherent modes: a signature of trapped Electron Mode contribution, Oral*
49. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, M. Sertoli, J.M. Garcia-Regana, A. de Bustos, T. Odstrcil, D. Vezinet, D. Hogeweij, J.H. Ahn, R. Guirlet, M. Willensdorfer, ASDEX Upgrade team, Interplay between central ECRH and MHD in mitigating tungsten accumulation in ASDEX Upgrade, Oral, O4.129*
50. *1st EPS Conference on Plasma Diagnostics (ECPD 2015), 2015/04/14, Frascati, Italy, A. Shalpegin, F. Brochard, I. Bykov, K. Bystrov, S. Bardin, M. de Angeli, L. Vignitchouk, P. Tolias, G. De Temmerman, T.W. Morgan, Highly resolved dust dynamics in fusion plasmas, Oral, O3.1*
51. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, C. Silva, J. Hillesheim, C. Hidalgo, C. Maggi, L. Meneses, E. Belonohy, M. Tsalas, JET Contributors, Experimental investigation of geodesic acoustic modes on JET using Doppler backscattering, Poster, O3.114*
52. *12th International Symposium on Fusion Nuclear Technology ISFNT-12, 2015/09/14, Jeju Island, Korea, P. Spaeh, G. Aiello, T. Goodman, G. Grossetti, A. Meier, D.M.S. Ronden, T. Scherer, S. Schreck, D. Strauss, A. Vaccaro et al., Shielding components for the ITER ECH & CD Upper Launcher, Poster, P1.136*
53. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, T. Tala, A. Salmi, C. Bourdelle, C. Giroud, J. Hillesheim, C. Maggi, P. Mantica, L. Meneses, M. Maslov, M. Tsalas et al., Dimensionless Collisionality Scans for Core Particle Transport in JET, Poster, P2.136*
54. *FuseNet 2015 PhD Event, 2015/11/15, Prague, Czech Republic, B. Vanovac, I.G.J. Classen, C.W. Domier, N.C. Luhmann, Jr., A.V. Bogomolov, W. Suttrop, B.J. Tobias, ASDEX Upgrade team, 3D edge temperature fluctuation measurements with upgraded ECEI diagnostic on ASDEX Upgrade, Poster*
55. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, N. Vianello, E.R. Solano, E. Delabie, J. Hillesheim, D. Refy, P. Buratti, J.E. Boom, R. Coelho, A. Figueiredo, H. Lerche et al., Experimental characterization of M-Mode in JET tokamak, Poster, P2.133*
56. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, W. Vijvers, G.P. Canal, B.P. Duval, B. Labit, B. Lipschultz, T. Lunt, F. Nespoli, H. Reimerdes, U. Sheikh, C. Theiler et al., Advanced divertor research on the TCV tokamak, Poster, P2.150*
57. *20th Workshop on MHD Stability Control MHD2015, 2015/11/22, Savannah, GA, USA, E. Westerhof, New insights into the generalized Rutherford equation for nonlinear neoclassical tearing mode growth from 2D reduced MHD simulations, Oral, Day1 17:00*
58. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, E. Westerhof, Current drive, Oral*
59. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, E. Westerhof, Electron Cyclotron waves, Oral*
60. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, M. Willensdorfer, M. Cavedon, I.G.J. Classen, M. Dunne, S. Fietz, R. Fischer, C. Fuchs, A. Kirk, F.M. Laggner, A. Medvedeva et al., Kinetic profiles during MP-field induced ELM mitigation at low v*, Poster, P1.132*
61. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, D.L. Yu, Y.L. Wei, L. Liu, M. von Hellermann, J.Y. Cao, A.P. Sun, Z.B. Shi, W.J. Chen, Q. Ma, X.X. He et al., Formation mechanism of ion internal transport barrier on HL-2A, Poster, P5.138*
62. *International workshop on Models and Data for Plasma-Material Interaction in Fusion Devices MoD-PMI 2015, 2015/05/25, Marseille, France, M. Zybrov, Y. Gasparyan, A. Shubina, A. Pisarev, Some aspects of determination of hydrogen binding energies with defects in metals, Poster, P-15Comparison of analytical estimates of TAE growth rate with results from kinetic simulations, Poster, P-11*

Positions: 20

1. *M.R. de Baar, Member excutive board of ITER-NL consortium (since 2014), 2015*
2. *M.R. de Baar, Professor at Eindhoven University of Technology (since 2012), 2015*
3. *M.R. de Baar, Leader ITER-NL work package 2: ITER Upper port Electron Cyclotron Current Drive launcher (since 2007), 2015*
4. *H.J. de Blank, Member of the Organizing Committee of the Carolus Magnus Summer School on Plasma Physics (since 2014), 2015*
5. *H.J. de Blank, Scientific organizer of the Lorentz Workshop Integrated Plasma Modelling of Solar Flares (2015), 2015*
6. *J. Citrin, Member of the International Tokamak Physics Activity (ITPA) Transport and Confinement Topical Group, 2015*
7. *A.J.H. Donné, Appointed EUROfusion Consortium Programme Manager (since 2014), 2015*
8. *A.J.H. Donné, Member of the International Advisory Committee of the 2016 International Conference on Plasma Physics (ICPP 2016), Kaohsiung, Taiwan (since 2015), 2015*
9. *A.J.H. Donné, Member of the International Advisory Committee of EAST (Hefei, China) (since 2015), 2015*
10. *A.J.H. Donné, Member of the International Scientific Advisory Board (Fachbeirat) of the Max-Planck-Institut for Plasma Physics (since 2014), 2015*
11. *A.J.H. Donné, Chairman Programme Committee of the First EPS Conference on Plasma Diagnostics, Frascati, Italy in April 2015 (since 2014) / Guest Editor of a Special Issue of Proceedings of Science and of a Special Issue of Journal of Instrumentation, 2015*
12. *A.J.H. Donné, Member of the Programme Committee of Laser-Aided Plasma Diagnostics Conference (since 1997), 2015*
13. *A.J.H. Donné, Member of Coordinating Committee of the International Tokamak Physics Activity (ITPA-CC) (since 2014), 2015*
14. *A.J.H. Donné, Chair of the Physics Advisory Panel of the Lorentz Centre (NL) (since 2013, Member since 2009), 2015*
15. *A.J.H. Donné, Member of the Editorial Board of Nuclear Fusion (since 2011), 2015*
16. *A.J.H. Donné, Member of the EIROforum Council (since 2014), 2015*
17. *G.M.D. Hogeweij, Member of the Scientific Committee of the European Fusion Theory Conference 2015, Lisbon, Portugal, 2015*
18. *G.M.D. Hogeweij, Member of the Organisational Committee of the Annual Dutch Symposium on Plasma Physics & Radiation Technology, Lunteren, 2015*
19. *E. Westerhof, Chairman SURFsara NWO gebruikersoverleg, 2015*
20. *E. Westerhof, Chairman Programme Committee of the Joint Workshops on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating, 2015*

Public events: 1

1. *HBO Technische Natuurkunde Haagse Hogeschool, 2015/10/12, Delft, Netherlands, E. Westerhof, Guest lesson on Nuclear fusion at Technische Natuurkunde, Haagse Hogeschool in Delft*

Media: 7

1. *Kernfusie - kan het echt al binnen vijf jaar?, KIJK, 2015/11/19, item with M.R. de Baar, A.J.H. Donné*
2. *Kernfusie in de knoop, De Volkskrant, 2015/11/14, item with M.R. de Baar, A.J.H. Donné, M.N.A. Beurskens*
3. *In een oogwenk kokend heet, telegraaf.nl, 2015/11/13, item with M.R. de Baar*
4. *Atoomkernen in oogwenk te verhitten tot miljoenen graden, nu.nl, 2015/11/13, item with M.R. de Baar*
5. *Nieuw kernreactorontwerp claimt doorbraak, KIJK magazine, 2015/08/12, item with M.R. de Baar*
6. *Belangrijke drempel kernfusie opgehelderd?, KIJKmagazine.nl, 2015/07/01, item with J. Citrin, M.R. de Baar*
7. *Twee nieuwe tenure trackers aan de slag voor het energievraagstuk, engineersonline.nl, 2015/04/10, item with P. Diomede*

Theme Solar Fuels - sustainable energy storage

PhD theses: 3

1. *F.K. Brehmer, Shining light on transient CO_2 plasma, PhD thesis at the Eindhoven University of Technology, 2015/01/20, Promotor: M.C.M. van de Sanden*
2. *F.J.J. Peeters, The electrical dynamics of dielectric barrier discharges, PhD thesis at the Eindhoven University of Technology, 2015/05/28, Promotor: M.C.M. van de Sanden, N.J. Lopes Cardozo*
3. *J.W. Weber, Graphene: an optical diagnostic study, PhD thesis at the Eindhoven University of Technology, 2015/03/10, Promotor: M.C.M. van de Sanden, W.M.M. Kessels*

Bachelor theses: 5

1. *G. Frissen, (Bachelor thesis Utrecht University:) CO_2 dissociation in microwave plasma, 2015, Mentor: S. Welzel*
2. *B. van Hemert, (HBO scriptie The Hague University of Applied Sciences, Den Haag) Behavior of Supersonic CO_2 in a De Laval Nozzle, 2015, Mentor: W.A. Bongers*
3. *K. Ly, (HBO scriptie Fontys Hogeschool, Eindhoven) Roll-to-roll deposition of plasma polymerized thin films at atmospheric pressure, 2015, Mentor: H.W. de Vries*
4. *Y.W. Mok, (HBO scriptie Fontys Hogeschool, Eindhoven) The role of the microstructures in the permeation mechanism, 2015, Mentor: H.W. de Vries*
5. *A. Zhang, (HBO scriptie Fontys Hogeschool, Eindhoven) Determining the properties and adhesion of plasma deposited silica layers in relation to thermal annealing, 2015, Mentor: H.W. de Vries*

Book chapters: 2

1. *A.P.H. Goede, CO_2-neutral fuels, Energy: Basic concepts and forefront ideas - Lecture notes Joint EPS-SIF international school on energy 2014, EPS-SIF, 9788874380947, 2015, 357-382*
2. *M.C.M. van de Sanden, Hoezo de wereld redden?, Mee met morgen: Vijftig korte essays over de toekomst van de wetenschap en kunst samengebracht door de Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, Academia Press, 9789038222158, 2015, 139-141*

Publications in peer-reviewed scientific journals: 38

1. *F. Brehmer, S. Welzel, B.L.M. Klarenaar, H.J. van der Meiden, M.C.M. van de Sanden, R. Engeln, Gas temperature in transient CO_2 plasma measured by Raman scattering, J. Phys. D-Appl. Phys. 48 (2015) 155201*
2. *B.J.M. Brenny, D. van Dam, C.I. Osorio, J. Gomez Rivas, A. Polman, Azimuthally polarized cathodoluminescence from InP nanowires, Appl. Phys. Lett. 107 (2015) 201110*
3. *J.A. Dionne, A. Baldi, B. Baum, C.S. Ho, V. Janković, G.V. Naik, T. Narayan, J.A. Scholl, Y. Zhao, Localized fields, global impact: Industrial applications of resonant plasmonic materials, MRS Bull. 40 (2015) 1138-1145*
4. *I. Dogan, M.C.M. van de Sanden, Characterization of Nanocrystal Size Distribution Using Raman Spectroscopy with a Multi-particle Phonon Confinement Model, J. Vis. Exp. 2015 (2015) e53026*
5. *I. Dogan, R.H.J. Westerman, M.C.M. van de Sanden, Improved size distribution control of silicon nanocrystals in a spatially confined remote plasma, Plasma Sources Sci. Technol. 24 (2015) 015030*
6. *A. Dolgov, D. Lopaev, C.J. Lee, E. Zoethout, V. Medvedev, O. Yakushev, F. Bijkerk, Characterization of carbon contamination under ion and hot atom bombardment in a tin-plasma extreme ultraviolet light source, Appl. Surf. Sci. 353 (2015) 708-713*
7. *C. Duan, A. Furlan, J.J. van Franeker, R.E.M. Willems, M.M. Wienk, and R.A.J. Janssen, Wide band gap benzodithiophene-benzothiadiazole copolymers for highly efficient multi-junction polymer solar cells, Adv. Mater. 2015, 27, 4461-4468*
8. *S. Esiner, R.E.M. Willems, A. Furlan, W. Li, M.M. Wienk, and R.A.J. Janssen, Photoelectrochemical water splitting in an organic artificial leaf, J. Mater. Chem. A, 2015, 3, 23936–23945*
9. *J.J. van Franeker, S. Kouijzer, X. Lou, M. Turbiez, M.M. Wienk, and R.A.J. Janssen, Depositing fullerenes in swollen polymer layers via sequential processing of organic solar cells, Adv. Energy Mater. 2015, 5, 1500464/1–10*
10. *J.J. van Franeker, G.H.L. Heintges, C. Schaefer, G. Portale, W. Li, M.M. Wienk, P. van der Schoot, and R.A.J. Janssen, Polymer solar cells: Solubility controls fiber network formation, J. Am. Chem. Soc. 2015, 137, 11783–117945*
11. *A.P.H. Goede, CO_2-neutral fuels, EPJ Web Conf. 98 (2015) 07002*
12. *K. Guo, G. Lozano, M.A. Verschuuren, J. Gomez Rivas, Control of the external photoluminescent quantum yield of emitters coupled to nanoantenna phased arrays, J. Appl. Phys. 118 (2015) 073103*
13. *N. den Harder, D.C. Schram, W.J. Goedheer, H.J. de Blank, M.C.M. van de Sanden, G.J. van Rooij, Residual gas entering high density hydrogen plasma: rarefaction due to rapid heating, Plasma Sources Sci. Technol. 24 (2015) 025020*
14. *W.Y. Hernández, M.N. Tsampas, C. Zhao, A. Boréave, F. Bosselet, P. Vernoux, La/Sr-based perovskites as soot oxidation catalysts for Gasoline Particulate Filters, Catal. Today 258, Part 2 (2015) 525 - 534*
15. *K. Kang, A.W. Kleyn, M.A. Gleeson, Kinetic analysis of interaction between N atoms and O-covered Ru(0001), J. Chem. Phys. 143 (2015) 164708*
16. *B.L.M. Klarenaar, F. Brehmer, S. Welzel, H.J. van der Meiden, M.C.M. van de Sanden, R. Engeln, Note: Rotational Raman scattering on CO_2 plasma using a volume Bragg grating as a notch filter, Rev. Sci. Instrum. 86 (2015) 046106*
17. *W. Li, K.H. Hendriks, A. Furlan, M.M. Wienk, and R.A.J. Janssen, High quantum efficiencies in polymer solar cells at energy losses below 0.6 eV, J. Am. Chem. Soc. 2015, 137, 2231–2234*
18. *W. Li, K.H. Hendriks, A. Furlan, A. Zhang, M.M. Wienk, and R.A.J. Janssen, A regioregular terpolymer comprising two electron-deficient and one electron-rich unit for ultra small band gap solar cells, Chem. Commun. 2015, 51, 4290–4293*
19. *W. Li, Y. An, M.M. Wienk, and R.A.J. Janssen, Polymer-polymer solar cells with near-infrared spectral response, J. Mater. Chem. A 2015, 3, 6756–6760*
20. *D. Lopez-Gonzalez, M.N. Tsampas, A. Boréave, L. Retailleau-Mevel, M. Klotz, C. Tardivat, B. Cartoixa, K. Pajot, P. Vernoux, Mixed Ionic–Electronic Conducting Catalysts for Catalysed Gasoline Particulate Filters, Top. Catal. 58 (2015) 1242-1255*
21. *V.V. Medvedev, J. Yang, A.J. Schmidt, A.E. Yakshin, R.W.E. van de Kruijs, E. Zoethout, F. Bijkerk, Anisotropy of heat conduction in Mo/Si multilayers, J. Appl. Phys. 118 (2015) 085101*
22. *M. North, P. Abrantes, E. Remiezowicz, A. Bardow, J. Dodson, T. Manning, J. Albo, D. Reed, D. Harris, I. Ingram et al., CO_2 reduction reactions: general discussion, Faraday Discuss. 183 (2015) 261-290*
23. *J.M. Palomares, A. Kohut, G. Galbács, R. Engeln, Z. Geretovszky, A time-resolved imaging and electrical study on a high current atmospheric pressure spark discharge, J. Appl. Phys. 118 (2015) 233305*
24. *F.J.J. Peeters, R. Yang, M.C.M. van de Sanden, The relation between the production efficiency of nitrogen atoms and the electrical characteristics of a dielectric barrier discharge, Plasma Sources Sci. Technol. 24 (2015) 045006*
25. *F.J.J. Peeters, M.C.M. van de Sanden, The influence of partial surface discharging on the electrical characterization of DBDs, Plasma Sources Sci. Technol. 24 (2015) 015016*
26. *A. Perrotta, G. Aresta, E.R.J. van Beekum, J. Palmans, P. van de Weijer, M.C.M. van de Sanden, W.M.M. Kessels, M. Creatore, The impact of the nano-pore filling on the performance of organosilicon-based moisture barriers, Thin Solid Films 595, Part B (2015) 251 - 257*
27. *G.W.P. van Pruissen, J. Brebels, K.H. Hendriks, M.M. Wienk, and R.A.J. Janssen, The effects of cross conjugation on the optical absorption and frontier orbital levels of donor-acceptor polymers, Macromolecules 2015, 48, 2435–2443*
28. *G. van Rooij, D. van den Bekerom, N. den Harder, T. Minea, G. Berden, W. Bongers, R. Engeln, M. Graswinckel, E. Zoethout, M.C.M. van de Sanden, Taming microwave plasma to beat thermodynamics in CO_2 dissociation, Faraday Discuss. 178 (2015) 233-248*
29. *D. Sahin, A. Gaggero, J.W. Weber, I. Agafonov, M.A. Verheijen, F. Mattioli, J. Beetz, M. Kamp, S. Hofling, M.C.M. van de Sanden et al., Waveguide Nanowire Superconducting Single-Photon Detectors Fabricated on GaAs and the Study of Their Optical Properties, IEEE J. Sel. Top. Quant. Electron. 21 (2015) 3800210*
30. *F.M. Sapountzi, M.N. Tsampas, C. Zhao, A. Boréave, L. Retailleau, D. Montinaro, P. Vernoux, Triode operation for enhancing the performance of H_2S-poisoned SOFCs operated under CH_4–H_2O mixtures, Solid State Ionics 277 (2015) 65-71*

31. *M.C. Schaafsma, G. Georgiou, J. Gomez Rivas, Enhanced THz extinction in arrays of resonant semiconductor particles, Opt. Express 23 (2015) 24440-24455*
32. *A. Serve, T. Epicier, M. Aouine, F.J. Cadete Santos Aires, E. Obeid, M.N. Tsampas, K. Pajot, P. Vernoux, Investigations of soot combustion on yttria-stabilized zirconia by environmental transmission electron microscopy (ETEM), Appl. Catal. A-Gen. 504 (2015) 74–80*
33. *A. Shalpegin, L. Vignitchouk, I. Erofeev, F. Brochard, A. Litnovsky, S. Bozhenkov, I. Bykov, N. den Harder, G. Sergienko, Fast camera observations of injected and intrinsic dust in TEXTOR, Plasma Phys. Control. Fusion 57 (2015) 125017*
34. *F.M.M. Souren, J. Rentsch, M.C.M. van de Sanden, Relation between light trapping and surface topography of plasma textured crystalline silicon wafers, Prog. Photovolt: Res. Appl. 23 (2015) 352-366*
35. *S.A. Starostin, S. Welzel, B.C.A.M. van der Velden, Y. Liu, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Dynamics of the atmospheric pressure diffuse dielectric barrier discharge between cylindrical electrodes in roll-to-roll PECVD reactor, Eur. Phys. J. Appl. Phys. 71 (2015) 20803*
36. *S.A. Starostin, M. Creatore, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Towards Roll-to-Roll Deposition of High Quality Moisture Barrier Films on Polymers by Atmospheric Pressure Plasma Assisted Process, Plasma Processes Polym. 12 (2015) 545-554*
37. *M.N. Tsampas, F.M. Sapountzi, P. Vernoux, Applications of yttria stabilized zirconia (YSZ) in catalysis, Catal. Sci. Technol. 5 (2015) 4884-4900*
38. *D. Wagner, W. Bongers, W. Kasparek, F. Leuterer, F. Monaco, M. Münich, H. Schütz, J. Stober, M. Thumm, H. van den Brand, A Multifrequency Notch Filter for Millimeter Wave Plasma Diagnostics based on Photonic Bandgaps in Corrugated Circular Waveguides, EPJ Web Conf. 87 (2015) 04012*

Publications in other journals and conference proceedings: 15

1. *D.C.M. van den Bekerom, G. Berden, A. Berthelot, W.A. Bongers, C.A. Douat, R. Engeln, N. den Harder, T. Minea, M.C.M. van de Sanden, G.J. van Rooij, Probing vibrational ladder-excitation in CO_2 microwave plasma with a free electron laser to develop a route to efficient solar fuels, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-II-8-31*
2. *T. Belete, M.C.M. van de Sanden, M.A. Gleeson, Plasma dissociation of water for CO_2 conversion, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-II-8-1*
3. *W.A. Bongers, S. Welzel, D.C.M. van den Bekerom, G.F.W.M. Frissen, G.J. van Rooij, A.P.H. Goede, M.F. Graswinckel, P.W.C. Groen, N. den Harder, B. van Hemert et al., Developments in CO_2 dissociation using non-equilibrium microwave plasma activation for solar fuels, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) O-15-4*
4. *F.M. Elam, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Polarised attenuated total reflectance-Fourier transform infrared analysis of silica-like thin films: an assessment of film quality, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) ITN-6*
5. *B.L.M. Klarenaar, F. Brehmer, S. Welzel, J. Scheers, H.J. van der Meiden, M.C.M. van de Sanden, R. Engeln, Rotational Raman spectroscopy on CO_2 at elevated pressure in a dielectric-barrier discharge, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) O-9-6*
6. *M. Leins, S. Gaiser, J. Kopecki, W.A. Bongers, A. Goede, M.F. Graswinckel, A. Schulz, M. Walker, M.C.M. van de Sanden, T. Hirth, Dissociation of CO_2 by means of a microwave plasma process for solar fuels production, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-II-8-18*
7. *Y. Liu, S. Welzel, S.A. Starostin, M.C.M. van de Sanden, J.B. Bouwstra, R. Engeln, H.W. de Vries, Infrared gas phase studies on plasma-polymer interaction in high-current dielectric barrier discharges, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-I-2-40*
8. *A. Meshkova, S.A. Starostin, M.C.M. van de Sanden, H.W. de Vries, Surface morphology analysis of SiO2 thin film growth on polymeric substrate, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-III-6-38*
9. *T. Minea, D.C.M. van den Bekerom, N. den Harder, M.F. Graswinckel, P.W.C. Groen, W.A. Bongers, M.C.M. van de Sanden, J. van de Loosdrecht, L. Lefferts, G.J. van Rooij, Methane activation in a microwave plasma reactor, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-II-8-21*
10. *F.J.J. Peeters, R.F. Rumphorst, M.C.M. van de Sanden, Dielectric barrier discharges: evidence for mobile surface charge, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) O-5-1*

11. *S. Ponduri, O. Guaitella, C.A. Douat, M.C.M. van de Sanden, R. Engeln, Relation between filament density and CO_2 dissociation in CO_2 dielectric barrier discharge, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-II-4-11*
12. *S.A. Starostin, A. Meshkova, F.M. Elam, M.C.M. van de Sanden, J.B. Bouwstra, H.W. de Vries, Scaling of the atmospheric pressure DBD assisted deposition process for gas diffusion barrier film, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) O-20-4*
13. *I. Tanyeli, L. Marot, D. Mathys, M.C.M. van de Sanden, G. De Temmerman, Surface modification of metals induced by high fluxesof low energy helium ions, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) O-18-4*
14. *S. Wang, W.A. Bongers, S. Welzel, G. Frissen, T. Minea, P.W.C. Groen, D.C.M. van den Bekerom, G.J. van Rooij, N. den Harder, M.C.M. van de Sanden et al., Non-thermal microwave plasma dissociation of CO_2 with high energy and conversion efficiencies by chemical equilibrium shift, IX International Workshop on Microwave Discharges (2015) 186-190*
15. *S. Welzel, W.A. Bongers, G.F.W.M. Frissen, M.F. Graswinckel, B. van Hemert, M.C.M. van de Sanden, Spectroscopic studies on medium-pressure microwave plasmas for CO_2 conversion, ISPC 2015, 22nd International Symposium on Plasma Chemistry (2015) P-I-2-74*

Invited lectures at conferences and meetings: 45

1. *Stanford-Chalmers Workshop on Advancing Materials Innovatively, 2015/12/14-15, Gothenburg, Sweden, A. Baldi, T. C. Narayan, A.-L. Koh, R. Sinclair, and J. A. Dionne, Reconstructing phase transitions within individual nanoparticles using in-situ TEM*
2. *CHAINS 2015: Chemistry Matters for the Future, 2015/12/1-2, Veldhoven, Netherlands, A. Baldi, Energy storage in nanomaterials*
3. *Gordon Research Conference - Hydrogen-Metal Systems, 2015/06/12-17, Easton (MA), USA, A. Baldi, In-situ TEM study of hydrogen absorption in single Pd nanoparticles*
4. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, A. Baldi, T. Narayan, A. Leen Koh, J. Dionne, Measuring hydrogen storage in individual palladium nanocrystals, Oral, F01.02*
5. *FISMAT 2015 Italian National Conference on Condensed Matter Physics, 2015/09/28, Palermo, Italy, A. Bhattacharya, G. Georgiou, J. Gomez Rivas, Photo-generated THz plasmonic antennas and metamaterials, #047*
6. *E-MRS Fall Meeting 2015, 2015/09/15, Warsaw, Poland, A. Bieberle, Approaches and Challenges of Modeling and Simulations of Photo-electrochemical Interfaces*
7. *6th Energy Materials and Nanotechnology (EMN) conference, 2015/07/01, Istanbul, Turkey, A. Bieberle, Micro-/nanostructuring of Metal Oxides and their Applications, A10*
8. *Workshop on Simulation and Characterization for Energy Materials and Devices, EERA AMPEA (Advanced Materials and Processes for Energy Applications), 2015/06/02, London, UK, A. Bieberle, Experiments, Modelling and Simulations of Electrochemical Interfaces - from Solid Oxide Fuel Cells to Solar Fuel Conversion*
9. *Spring conference of strategic alliance between Technical University Eindhoven and University Utrecht, parallel session Solar Fuels, 2015/06/01, Utrecht, Netherlands, A. Bieberle, Photoelectrochemical Solar Fuel Conversion: Combining Electrochemistry with Materials Science and Engineering and Control Theory*
10. *20th International Colloquium on Plasma Processes (CIP 2015), 2015/06/01, Saint-Etienne, France, R. Engeln, B. Klarenaar, S. Ponduri, F. Brehmer, C. Douat, O. Guaitella, D. van den Bekerom, M.C.M. van de Sanden, G. van Rooij, Plasma activated conversion of CO_2 for solar fuel production*
11. *20th International Colloquium on Plasma Processes (CIP 2015), 2015/06/01, St. Etienne, France, R. Engeln, B. Klarenaar, S. Ponduri, F. Brehmer, C. Douat, O. Guaitella, D. van den Bekerom, M.C.M. van de Sanden, G. van Rooij, Plasma activated conversion of CO_2 for solar fuel production*
12. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, O. Guaitella, C. Douat, S. Ponduri, F. Brehmer, S. Welzel, M.C.M. van de Sanden, R. Engeln, Role of surfaces in CO_2-conversion with dielectric barrier discharges, I1.303*
13. *21st ITPA Divertor and Scrape-off Layer Topical Group Meeting, 2015/06/09, Princeton, NJ, USA, N. den Harder, W-sputtering by ELMs, 6 Materials*
14. *Umeå Univeristy, Umeå (Sweden), January 20, 2015, R.A.J. Janssen, Invited seminar: Converting Solar Energy with Organic Materials*
15. *MRS Spring meeting, San Francisco (USA), April 6-10, 2015, R.A.J. Janssen, Invited lecture: Materials for triple junction polymer solar cells*

16. *Science café, Nijmegen (Netherlands), April 13, 2015, R.A.J. Janssen, Invited lecture: Polymer and perovskite solar cells*
17. *Dutch perovskite workshop, Delft (Netherlands), June 4, 2015, R.A.J. Janssen, Invited lecture: Processing and performance of perovskite solar cells in planar device configurations*
18. *Energy production, storage and conversion from molecules to devices at the crossroads of physical chemistry, Otranto (Italy), June 8-12, 2015, R.A.J. Janssen, Invited tutorial: Converting solar energy with organic materials*
19. *ICOE 2015, Erlangen (Germany), June 15-17, 2015, R.A.J. Janssen, Invited lecture: Dominant length scales in photoactive films of solution processed*
20. *polymer-fullerene solar cells*
21. *Next generation organic photovoltaics II, Groningen (The Netherlands), June 28- July 1, 2015, R.A.J. Janssen, Invited lecture: Dominant length scales in photoactive films of solution processed*
22. *polymer-fullerene solar cells*
23. *ICIQ, Tarragona (Spain), July 13, 2015, R.A.J. Janssen, Invited seminar: Converting solar energy with organic materials*
24. *Fpi12, Seattle (USA), July 19-24, 2015, R.A.J. Janssen, Invited lecture: Dominant length scales in photoactive films of solution processed polymer-fullerene solar cells*
25. *4th Congress on Organic & Printed Photovoltaics, Würzburg (Germany), October 9, 2015, R.A.J. Janssen, Invited lecture: Organic photovoltaics: An overview*
26. *SPIC 2015, Science et Technologie des Systèmes pi-Conjugués, Angers (France), October 12-16, 2015, R.A.J. Janssen, Invited lecture: Dominant length scales in photoactive films of solution processed polymer-fullerene solar cells*
27. *Research Day Department of Mechanical Engineering, TU/e, Eindhoven (The Netherlands), November 12, 2015, R.A.J. Janssen, Invited seminar: Converting solar energy with organic materials*
28. *Our solar energy future, AMOLF, Amsterdam (The Netherlands), November 13, 2015, R.A.J. Janssen, Invited lecture: Recent advances in hybrid organic - inorganic solar cells*
29. *DIFFER Symposium, Eindhoven (The Netherlands), November 19, 2015, R.A.J. Janssen, Invited lecture: Capturing solar energy in charges and bonds with organic semiconductors*
30. *Valleys of the Future, KIVI Jaarcongres 2015, Leeuwarden (The Netherlands), November 24, 2015, R.A.J. Janssen, Keynote Lecture: Solliance – TU/e – DIFFER: Thin film solar cells and solar fuels*
31. *Alumnivereniging "VENI", Eindhoven (The Netherlands), November 27, 2015, R.A.J. Janssen, Seminar: Polymer solar cells*
32. *Chains 2015, Eindhoven (The Netherlands), December 2 2015, R.A.J. Janssen, Plenary Lecture: Converting solar energy with organic materials*
33. *Materials of the Future, M2i Conference 2015, Sint Michelsgestel (The Netherlands), December 8, 2015, R.A.J. Janssen, Keynote Lecture: Organic semiconductors capturing solar energy in charges and bonds*
34. *9th International conference on reactive plasmas ICRP-9 2015, 2015/10/12, Honolulu, HI, USA, G. van Rooij, Plasmolysis for efficient CO_2-to-fuel conversion*
35. *AVS 62th Annual International Symposium and Exhibition, 2015/10/18, San Jose, CA, USA, M.C.M. van de Sanden, Plasma Processing of Materials: What makes Plasma Special and Future Outlook?, PS+TF-WeA1 Plasma Prize invited lecture*
36. *iCOMET 2015 international conference molecular energy transfer in complex systems, 2015/10/11, Chengdu, China, M.C.M. van de Sanden, Plasma Non-equilibrium at Work: Key to Success of Energy Technologies?, I18*
37. *Where science meets business: 'innovatie in de praktijk', Eindhoven TU/e / CIC Solar technology (Campus Industry Connection), 2015/09/24, Eindhoven, Netherlands, M.C.M. van de Sanden, The Dutch Institute for Fundamental Energy Research: mission, research and goals*
38. *PLASMA-2015 International Conference on Research and Applications of Plasmas, 2015/09/07, Warsaw, Poland, M.C.M. van de Sanden, Linear plasma devices: characteristics, diagnostics and application, 10/09 9:45*
39. *6th International Symposium on Plasma Nanosciences (iPlasmaNano VI), 2015/08/25, Beijing, China, M.C.M. van de Sanden, Plasma-induced conductivity in dielectrics: a study of dielectric barrier discharges, 26AM-1*
40. *42th EPS Conference on Plasma Physics, 2015/06/22, Lisbon, Portugal, M.C.M. van de Sanden, Plasma non-equilibrium at work: key to success of energy technologies?, I1.003*
41. *(Micro)plasma & microstructures international workshop 2015, 2015/11/26, Ghent, Belgium, H.W. de Vries, Y. Liu, S.A. Starostin, M.C.M. van de Sanden, Applications of Roll-to-Roll High Current Dielectric Barrier Discharge Processing - Controlling the Discharge Evolution*

42. *AVS 62th Annual International Symposium and Exhibition, 2015/10/18, San Jose, CA, USA, H.W. de Vries, Synthesis, Characterisation and Engineering of Moisture Barrier Films Deposited in a Roll-to-Roll High Current Dielectric Barrier Discharge, TF+PS-ThA1*
43. *9th International conference on reactive plasmas 2015 ICRP-9, 2015/10/12, Honolulu, HI, USA, H.W. de Vries, Controlling the Porosity in Silica-like Moisture Barriers Processed in a High Current Dielectric Barrier Discharge*
44. *20th International Colloquium on Plasma Processes (CIP 2015), 2015/06/01, St. Etienne, France, H.W. de Vries, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, Towards Industrial Roll-to-Roll Thin Film Processing Using a High Current Dielectric Barrier Discharge*
45. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, H.W. de Vries, Fundamental Challenges in Atmospheric Pressure Plasma Processing of Functional Films for Industrial Application*

Other oral and poster presentations at (international) conferences and meetings: 74

1. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, D.C.M. van den Bekerom, J.M. Palomares-Linares, T. Verreycken, G. Berden, A. Berthelot, W.A. Bongers, C. Douat, R.A.H. Engeln, N. den Harder, T. Minea et al., Microwave plasma power interruption to promote non-equilibrium conversion of CO_2, Oral, O13*
2. *NWO symposium Research challenges on harvesting and converting solar energy, 2015/09/04, Eindhoven, Netherlands, D.C.M. van den Bekerom, G. Berden, W.A. Bongers, R. Engeln, N. den Harder, T.W. Minea, F.J.J. Peeters, J.M. Palomares-Linares, S. Ponduri, M.C.M. van de Sanden et al., Probing vibrational ladder-excitation in CO_2 microwave plasma with a Free Electron Laser to develop a route to efficient solar fuel production, Poster*
3. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, D.C.M. van den Bekerom, G. Berden, A. Berthelot, W.A. Bongers, C.A. Douat, R. Engeln, N. den Harder, T. Minea, M.C.M. van de Sanden, G.J. van Rooij, Probing vibrational ladder-excitation in CO_2 microwave plasma with a free electron laser to develop a route to efficient solar fuels, Poster, P-II-8-31*
4. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, D.C.M. van den Bekerom, G. Berden, A. Berthelot, C.A. Douat, R.A.H. Engeln, N. den Harder, T. Minea, M.C.M. van de Sanden, G.J. van Rooij, Probing vibrational ladder-excitation in CO_2 microwave plasma with a Free Electron Laser to develop a route to efficient solar fuel production, Oral, O5*
5. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, T. Belete, M.C.M. van de Sanden, M.A. Gleeson, Direct production of fuels from captured CO_2, Poster, P2*
6. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, T. Belete, M.C.M. van de Sanden, M.A. Gleeson, Plasma dissociation of water for CO_2 conversion, Poster, P-II-8-1*
7. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, T. Belete, M.A. Gleeson, M.C.M. van de Sanden, Plasma dissociation of water for CO_2 conversion, Poster, A4*
8. *1st International Solar Fuels Conference (ISF-1), 2015/04/26, Uppsala, Sweden, A. Bieberle, R. Sinha, R. Lavrijsen, M.C.M. van de Sanden, Sputtered Hematite Thin Films for Photo-electrochemical Solar Fuel Conversion, Poster*
9. *Solar Fuel 15 on "Light Driven Water Splitting Using Semiconductor Based Devices", 2015/03/10, Mallorca, Spain, A. Bieberle, I. Tanyeli, R. Lavrijsen, M.C.M. van de Sanden, Nanostructured Thin Films by High Ion Flux He Plasma Exposure, Poster*
10. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, W.A. Bongers, S. Welzel, D.C.M. van den Bekerom, G.F.W.M. Frissen, G.J. van Rooij, A.P.H. Goede, M.F. Graswinckel, P.W.C. Groen, N. den Harder, B. van Hemert et al., Developments in CO_2 dissociation using non-equilibriummicrowave plasma activation for solar fuels, Oral, O-15-4*
11. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, R. Coloma Ribera, R. van de Kruijs, S. Kokke, E. Zoethout, A. Yakshin, F. Bijkerk, Co-existence of 2D (film) and 3D (nano-column) growth in thermally oxidized ruthenium thin films, Oral, PA06.09*
12. *7th NTT-BRL School Nano and Optics, 2015/11/15, Atsugi, Japan, D. van Dam, D.R. Abujetas, R. Paniagua-Dominguez, J.A. Sanchez-Gil, E.P.A.M. Bakkers, J.E.M. Haverkort, J. Gomez Rivas, Directional and polarized nanowire emission governed by waveguide modes, Poster*
13. *Nanowires Workshop 2015, 2015/10/26, Barcelona, Spain, D. van Dam, D.R. Abujetas, R. Paniagua-Dominguez, J.A. Sanchez-Gil, E.P.A.M. Bakkers, J.E.M. Haverkort, J. Gomez Rivas, Directional and polarized nanowire emission governed by waveguide modes, Oral*
14. *AVS 62th Annual International Symposium and Exhibition, 2015/10/18, San Jose, CA, USA, I. Dogan, S.L. Weeks, S. Agarwal, M.C.M. van de Sanden, Nucleation of Silicon Nanocrystals in a Remote Plasma without Subsequent Coaguation, Oral, PS+EM-MoA8*

15. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, I. Dogan, R. Gresback, T. Nozaki, M.C.M. van de Sanden, Raman spectroscopy as diagnostics for size distribution and surface chemistry of remote plasma synthesized silicon nanocrystals, Poster, P03.044*
16. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, F.M. Elam, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Atmospheric pressure roll-to-roll plasma enhanced CVD of silica-like moisture barrier films: The nature and impact of film defects, Poster, P8*
17. *AVS 62th Annual International Symposium and Exhibition, 2015/10/18, San Jose, CA, USA, F. Elam, A. Meshkova, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Atmospheric Pressure Roll-to-Roll Plasma Enhanced CVD ofHigh Quality Silica-like Bi-layer Moisture Barrier Films The Influence ofInput Energy, Oral, TF+PS-ThA8*
18. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, F.M. Elam, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Polarised Attenuated Total Reflectance-Fourier Transform Infrared Analysis of Silica-like Thin Films: An Assessment of Film Quality, Oral, ITN-6*
19. *NWO symposium Research challenges on harvesting and converting solar energy, 2015/09/04, Eindhoven, Netherlands, G. Giammaria, T. Belete, M.A. Gleeson, L. Lefferts, M.C.M. van de Sanden, W.A. Bongers, B. van Hemert, Direct Production of Fuels From Captured CO_2, Poster*
20. *2015 GRC: Carbon Capture, Utilization and Storage (CCUS), 2015/05/31, Stonehill College, MA, USA, M.A. Gleeson, T. Belete, A. Walsh, S. Wang, M.C.M. van de Sanden, Materials-mediated plasma conversion of CO_2, Poster*
21. *E-MRS Spring Meeting 2015, 2015/05/11, Lille, France, M.A. Gleeson, T. Belete, A. Walsh, S. Wang, M.C.M. van de Sanden, Materials-mediated plasma conversion of CO_2, Poster*
22. *OSES 2015 Offshore Energy and Storage Symposium, 2015/07/01, Edinburgh, UK, A.P.H. Goede, W.A. Bongers, M.F. Graswinckel, M.C.M. van de Sanden, E. Langereis, M. Leins, J. Kopecki, A. Schulz, M. Walker, Power To Gas Energy Storage For Off-Shore Wind Based On Recycled CO_2, Oral*
23. *EST, Energy Science Technology, International Conference, 2015/05/20, Karlsruhe, Germany, A.P.H. Goede, W.A. Bongers, M.F. Graswinckel, M.C.M. van de Sanden, M. Leins, J. Kopecki, A. Schulz, M. Walker, E. Langereis, CO_2 Neutral Fuels, Poster, P3.05*
24. *Workshop Manufacturing Green Fuels from Renewable Energy, 2015/04/14, Risoe, Denmark, A.P.H. Goede, W.A. Bongers, M.F. Graswinckel, M.C.M. van de Sanden, E. Langereis, M. Leins, J. Kopecki, A. Schulz, M. Walker, Power To Gas Energy Storage For Off-Shore Wind Based On Recycled CO_2, Poster*
25. *NWO symposium Research challenges on harvesting and converting solar energy, 2015/09/04, Eindhoven, Netherlands, P.W.C. Groen, T. Verreycken, W.A. Bongers, D.C.M. van den Bekerom, J. van Dijk, P. Diomede, G. Frissen, A. Goede, M. Graswinckel, N. den Harder et al., Plasma conversion of CO_2 for solar fuels – the next step, Poster*
26. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, P.W.C. Groen, W.A. Bongers, J. van Dijk, M.F. Graswinckel, K.S.C. Peerenboom, S. Welzel, M.C.M. van de Sanden, G.M.W. Kroesen, Modelling of the DIFFER plasma reactor for CO_2dissociation, using Plasimo, Poster, A9*
27. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, N. den Harder, T. Minea, D.C.M. van den Bekerom, G. Berden, R.A.H. Engeln, M.C.M. van de Sanden, G.J. van Rooij, Probing reaction dynamics by laser scattering in CO_2 plasma, Poster, A7*
28. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, B.L.M. Klarenaar, R. Engeln, A time-resolved laser spectroscopic study on a dielectric-barrier discharge in CO_2, Poster, P20*
29. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, B.L.M. Klarenaar, F. Brehmer, S. Welzel, J. Scheers, H.J. van der Meiden, M.C.M. van de Sanden, R. Engeln, Rotational Raman spectroscopy on CO_2 at elevated pressure in a dielectric-barrier discharge, Oral, O-9-6*
30. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, B. Klarenaar, F. Brehmer, S. Welzel, H.J. van der Meiden, M.C.M. van de Sanden, R. Engeln, Rotational Raman scattering on CO_2 at elevated pressure in dielectric barrier discharges, Poster, P08.005*
31. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, M. Leins, S. Gaiser, J. Kopecki, W.A. Bongers, A.P.H. Goede, M.F. Graswinckel, A. Schulz, M. Walker, M.C.M. van de Sanden, T. Hirth, Dissociation of CO_2 by means of a microwave plasma process for solar fuels production, Poster, P-II-8-18*
32. *HRSMC Symposium, 2015/11/05, Amsterdam, Netherlands, R. van Lent, C. Badan, A.J. Walsh, M.A. Gleeson, L.B.F. Juurlink, Nanoscale control over reactions of O2 on Pt, Poster*
33. *Reedijk symposium, 2015/10/30, Leiden, The Netherlands, R. van Lent, A.J. Walsh, M.A. Gleeson, L.B.F. Juurlink, Surface reactivity of activated CO_2, Poster*
34. *Gordon research conference: Dynamics at Surfaces, 2015/08/09, Newport, RI, US, R. van Lent, A.J. Walsh, M.A. Gleeson, L.B.F. Juurlink, Surface reactivity of activated CO_2, Poster*
35. *HRSMC: Tulip school Modern Advances in Spectroscopy, 2015/04/14, Noordwijk, Netherlands, R. van Lent, A.J. Walsh, M.A. Gleeson, L.B.F. Juurlink, Surface reactivity of activated CO_2, Poster*
36. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, L. Lin, S. Starostin, Functional nanomaterials synthesis by microplasma, Poster, P25*
37. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, Y. Liu, S.A. Starostin, S. Welzel, F.J.J. Peeters, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Role of plasma-polymer interaction on evolution of atmospheric-pressure DBD, Poster, P26*
38. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, Y. Liu, S. Welzel, S.A. Starostin, M.C.M. van de Sanden, J.B. Bouwstra, R. Engeln, H.W. de Vries, Infrared gas phase studies on plasma-polymer interaction in high-current dielectric barrier discharges, Poster, P-I-2-40*
39. *11th Frontiers in Low Temperature Plasma Diagnostics FLTPD-XI, 2015/05/24, Porquerolles Island, France, Y. Liu, S. Welzel, J.B. Bouwstra, M.C.M. van de Sanden, R. Engeln, H.W. de Vries, Infrared gas phase studies on plasma-polymer interaction in high-current dielectric barrier, Poster, PS1-13*
40. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, Y. Liu, S. Welzel, S.A. Starostin, M.C.M. van de Sanden, J.B. Bouwstra, H.W. de Vries, Ex-situ infrared absorption spectroscopy study of the plasma chemistry in a dielectric barrier discharge using an air-like gas mixture, Poster, A15*
41. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, A. Meshkova, S.A. Starostin, M.C.M. van de Sanden, H.W. de Vries, Surface roughness evolution of SiO2 films grown on polymeric substrate, Poster, P27*
42. *ITFPC 2015, 7th International Conference on Innovations in Thin Film Processing and Characterization, 2015/11/16, Nancy, France, A. Meshkova, S.A. Starostin, M.C.M. van de Sanden, H.W. de Vries, Surface Morphology Analysis of SiO2 Thin Film Growth on Polymeric Substrate, Poster, P6.03-061*
43. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, A. Meshkova, S.A. Starostin, M.C.M. van de Sanden, H.W. de Vries, Surface morphology analysis of SiO2 thin film growth on polymeric substrate, Poster, P-III-6-38*
44. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, A. Meshkova, S.A. Starostin, J.B. Bouwstra, H.W. de Vries, M.C.M. van de Sanden, Surface dynamic evolution of silica-like films grown by AP-PECVD on polymeric substrate, Poster, A18*
45. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, T. Minea, L. de Groot, O. Hugget-Wilde, J.M.P. Linares, F.J.J. Peeters, D.C.M. van den Bekerom, N. den Harder, S. Ponduri, E. Zoethout, M.F. Graswinckel et al., A2+1 REMPI probe detection of molecular oxygen, Poster, P28*
46. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, T. Minea, D.C.M. van den Bekerom, N. den Harder, M.F. Graswinckel, P.W.C. Groen, W.A. Bongers, M.C.M. van de Sanden, J. van de Loosdrecht, L. Lefferts, G.J. van Rooij, Methane activation in a microwave plasma reactor, Poster, P-II-8-21*
47. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, T. Minea, D.C.M. van den Bekerom, N. den Harder, M.F. Graswinckel, W.A. Bongers, M.C.M. van de Sanden, J. van de Loosdrecht, L. Lefferts, G.J. van Rooij, Non-oxidative Coupling of Methane via Plasma Catalysis, Poster, A21*
48. *IX International Workshop on Microwave Discharges, 2015/09/07, Cordoba, Spain, J. van der Mullen, J.M. Palomares, S. Hübner, The key-role of Thomson scattering in the characterization of microwave plasmas, Oral, TL18*
49. *IX International Workshop on Microwave Discharges, 2015/09/07, Cordoba, Spain, J.M. Palomares-Linares, T. Minea, D.C.M. van den Bekerom, N. den Harder, W.A. Bongers, M.C.M. van de Sanden, R. Engeln, G. Berden, G.J. van Rooij, State of equilibrium departure of microwave induced plasmas for CO_2 dissociation, Oral, TL9*
50. *AVS 62th Annual International Symposium and Exhibition, 2015/10/18, San Jose, CA, USA, F. Peeters, R.F. Rumphorst, M.C.M. van de Sanden, Plasma-Induced Conductivity in Dielectrics: A Study of Dielectric Barrier Discharges, Oral, PS+SE-MoM10*

51. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, F.J.J. Peeters, M.C.M. van de Sanden, Dielectric barrier discharges:evidence for mobile surface charge, Oral, O-5-1*
52. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, F.J.J. Peeters, R.F. Rumphorst, M.C.M. van de Sanden, Dielectric Barrier Discharges: Multi-filamentDynamics and Mobile Charge, Oral, O11*
53. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, S. Ponduri, O. Guaitella, C.A. Douat, M.C.M. van de Sanden, R. Engeln, Relation between filament density and CO_2 dissociation in CO_2 dielectric barrier discharge, Poster, P-II-4-11*
54. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, S. Ponduri, M.M. Becker, D. Loffhagen, S. Welzel, M.C.M. van de Sanden, R. Engeln, Modelling of vibrational distributions in a CO_2 dielectric barrier discharge, Oral, PA17.01*
55. *NWO symposium Research challenges on harvesting and converting solar energy, 2015/09/04, Eindhoven, Netherlands, G.J. van Rooij, Tailoring plasma vibrational excitation to enhance the energy efficiency of CO_2 conversion, Oral*
56. *12th Carolus Magnus Summer School on Plasma Physics, 2015/08/24, Leuven, Belgium, G.J. van Rooij, Laboratory experiments to study plasma surface interaction, Oral*
57. *Symposium Laser-Aided Plasma Diagnostics, 2015/09/27, Hokkaido, Japan, A.A. Ruth, S. Dixneuf, J. Orphal, A.J. Walsh, Laser-induced micro-plasmas in air for incoherent broadband cavity-enhanced absorption spectroscopy, Oral*
58. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, J. Scheers, B.L.M. Klarenaar, S. Welzel, M.C.M. van de Sanden, R. Engeln, Time-resolved rotational Raman spectroscopy in an atmospheric pressure DBD in CO_2, Poster, B6*
59. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, S.A. Starostin, A. Meshkova, F.M. Elam, M.C.M. van de Sanden, J.B. Bouwstra, H.W. de Vries, Scaling of the atmospheric pressure DBD assisted deposition process for gas diffusion barrier film, Oral, O-20-4*
60. *AVS 62th Annual International Symposium and Exhibition, 2015/10/18, San Jose, CA, USA, I. Tanyeli, L. Marot, D. Mathys, M.C.M. van de Sanden, G. De Temmerman, Low Energy Helium Ion Irradiation Induced Surface Modification of Metals, Oral, PS+EM-MoA10*
61. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, I. Tanyeli, M.C.M. van de Sanden, Surface modification of metals induced by high fluxesof low energy helium ions, Oral, O-18-4*
62. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, T. Verreycken, D. van den Bekerom, J.M. Palomares-Linares, G. van Rooij, W. Bongers, Power modulation of a CO_2 microwave discharge for efficient dissociation of CO_2, Poster, P42*
63. *Future in Plasma Science, 2015/07/12, Greifswald, Germany, T. Verreycken, D.C.M. van den Bekerom, G. Frissen, M. Graswinckel, P.W.C. Groen, N. den Harder, B. van Hemert, T. Minea, S. Wang, B. Wolf et al., Plasma-chemical conversion of CO_2 for solar fuels, Poster*
64. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, H. de Vries, Y. Liu, A. Meshkova, F. Elam, S. Welzel, S.A. Starostin, M.C.M. van de Sanden, Recent progress in atmospheric pressure plasma synthesized thin films on polymer substrates, Poster, P08.002*
65. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, H. de Vries, S.A. Starostin, S. Welzel, Y. Liu, A. Meshkova, F.M. Elam, M.C.M. van de Sanden, Roll-to-roll atmospheric pressure plasma synthesized thin inorganic films on polymer substrates, Oral, F11.01*
66. *NWO symposium Research challenges on harvesting and converting solar energy, 2015/09/04, Eindhoven, Netherlands, A.J. Walsh, R. van Lent, M.A. Gleeson, L.B.F. Juurlink, Surface reactivity of activated CO_2, Poster*
67. *Gordon research conference: Dynamics at Surfaces, 2015/08/09, Newport, RI, US, A.J. Walsh, O. Berg, R. van Lent, D.L. Bashlakov, L.B.F. Juurlink, Reflection absorption infrared spectroscopy for a curved Platinum crystal, Poster*
68. *IX International Workshop on Microwave Discharges, 2015/09/07, Cordoba, Spain, S. Wang, W.A. Bongers, S. Welzel, G. Frissen, T. Minea, P.W.C. Groen, D.C.M. van den Bekerom, G.J. van Rooij, N. den Harder, M.C.M. van de Sanden et al., Non-thermal microwave plasma dissociation of CO_2 with high energy and conversion efficiencies by chemical equilibrium shift, Poster, P16*
69. *IX International Workshop on Microwave Discharges, 2015/09/07, Cordoba, Spain, S. Wang, W.A. Bongers, S. Welzel, G. Frissen, T. Minea, P.W.C. Groen, D.C.M. van den Bekerom, G.J. van Rooij, N. den Harder, M.C.M. van de Sanden et al., Non-thermal microwave plasma dissociation of CO_2 with high energy and conversion efficiencies by chemical equilibrium shift, Oral, TL12*
70. *ISPC 2015, 22nd International Symposium on Plasma Chemistry, 2015/07/05, Antwerp, Belgium, S. Welzel, W.A. Bongers, G.F.W.M. Frissen, M.F. Graswinckel, B. van Hemert, M.C.M. van de Sanden, Spectroscopic studies on medium-pressure microwave plasmas for CO_2 conversion, Poster, P-I-2-74*
71. *27th Symposium Plasma Physics and Radiation Technology, 2015/03/10, Lunteren, The Netherlands, S. Welzel, G.F.W.M. Frissen, B. van Hemert, M.F. Graswinckel, W.A. Bongers, M.C.M. van de Sanden, CO_2 dissociation in microwave plasmas, Poster, B19*
72. *Physics@FOM Veldhoven 2015, 2015/01/20, Veldhoven, Netherlands, S. Welzel, W.A. Bongers, M.F. Graswinckel, M.C.M. van de Sanden, CO_2-to-CO conversion in vortex-stabilised microwave plasmas, Oral, PA17.02*
73. *18th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-18), 2015/12/03, Kerkrade, The Netherlands, A.J. Wolf, T.R. Sakpal, S. Tadayon Mousavi, W.A.A.D. Graef, T. Verreycken, J. van Dijk, L. Lefferts, S. Welzel, W.A. Bongers, M.C.M. van de Sanden, Recycling CO_2 into sustainable hydrocarbon fuels: plasma catalytic conversion of CO_2 and H2O into CH4, Poster, P47*
74. *CHAINS 2015: Chemistry Matters for the Future, 2015/11/30, Veldhoven, Netherlands, X. Zhang, T.P.C. Klaver, R. van Santen, M.C.M. van de Sanden, A. Bieberle, Modeling Oxygen Evolution Reaction at Hematite Surfaces, Poster, ST-4434.7th International Conference on Plasma Nano Technology and Science (IC-PLANTS 2014), 2014/03/02, Nagoya, Japan, J. Röpcke, P.B. Davies, J.H. van Helden, M. Hübner, N. Lang, A. Rousseau, S. Welzel, On recent progress in studying chemical phenomena and surface interactions in plasmas using infrared absorption techniques, Poster*

Awards: 1

1. *S.R.K. Rodriguez, FOM Physics Thesis Prize 2015, 2015*

Positions: 34

1. *A. Bieberle, Jury member of the FOM projectruimte 2015-III proposals, 2015*
2. *A.P.H. Goede, Member of the Editorial Board of Euro Physics News (since 2010), 2015*
3. *A.P.H. Goede, Fellow of European Physical Society (since 2011), 2015*
4. *J. Gomez Rivas, Associate Editor of the Journal of Applied Physics (since 2015), 2015*
5. *E. Langereis, Co-organizer TU/e Energy Days (since 2013), 2015*
6. *E. Langereis, Co-organizer NWO symposium Research challenges on harvesting and converting solar energy, 4th September 2015, Eindhoven, Netherlands, 2015*
7. *E. Langereis, G.J. van Rooij, Member of the Editorial Board of Nederlands Tijdschrift voor de Natuurkunde, 2015*
8. *E. Langereis, Member of NERA working group (Netherlands Energy Research Alliance), 2015*
9. *G.J. van Rooij, M.A. Gleeson, M.C.M. van de Sanden, Organizers of the ISPC Industrial day - Re-use of carbon dioxide on July 5th 2015, 2015*
10. *G.J. van Rooij, Member of the Organisational Committee of the Annual Dutch Symposium on Plasma Physics & Radiation Technology, Lunteren, 2015*
11. *G.J. van Rooij, Organizer and lecturer Summerschool ISPC 2015, 2-4 July 2015 at DIFFER, Eindhoven, Netherlands, 2015*
12. *M.C.M. van de Sanden, Cluster Leader Technological Top Institute M2i, cluster Processing technologies of functional materials (since 2006), 2015*
13. *M.C.M. van de Sanden, Member WEST Governance Board in France (since 2014), 2015*
14. *M.C.M. van de Sanden, International Advisory Board member for ISPCEM 2016 symposium, Tianjin, China (since 2015), 2015*
15. *M.C.M. van de Sanden, Member of the EASAC Energy Steering Panel (European Academies) (since 2014), 2015*
16. *M.C.M. van de Sanden, Organizer AVS Conference - Program: Plasma Science and Technology division (since 2012), 2015*
17. *M.C.M. van de Sanden, Co-chair ISPC 2015: 22nd International Symposium on Plasma Chemistry In Antwerp, Belgium in 2015, 2015*
18. *M.C.M. van de Sanden, Member of the Euratom Programme Committee (Fusion) (since 2014), 2015*
19. *M.C.M. van de Sanden, International Advisory Board for the journal Plasma Processes and Polymers (since 2002), 2015*
20. *M.C.M. van de Sanden, Member Advisory Board SAIAMC South African Institute for Advanced Materials Chemistry (since 2015), 2015*
21. *M.C.M. van de Sanden, Nederlandse Natuurkundige Vereniging (NNV) vertegenwoordigend lid in de EPS divisie Energie, 2015*
22. *M.C.M. van de Sanden, Member of the Scientific Advisory Council (SAC) of the Helmholtz Zentrum Berlin für Materialen und Energie (since 2011), 2015*
23. *M.C.M. van de Sanden, Organizer Summerschool ISPC 2015, 2-4 July 2015 at DIFFER, Eindhoven, Netherlands, 2015*

24. *M.C.M. van de Sanden, Senior Advisory Board Member of Plasma Sources: Science and Technology (since 2005, Senior since 2014), 2015*
25. *M.C.M. van de Sanden, KNAW committee member Evaluation elections new members (since 2014), 2015*
26. *M.C.M. van de Sanden, KNAW committee member Large research infrastructure (since 2015), 2015*
27. *M.C.M. van de Sanden, Partime professorship in the Department of Applied Physics (since 2011 after fulltime since 2000), 2015*
28. *M.C.M. van de Sanden, Board member TKI Gas, Groningen (since 2014), 2015*
29. *M.C.M. van de Sanden, Member of the Royal Netherlands Academy of Arts and Sciences (KNAW) (since 2013), 2015*
30. *M.C.M. van de Sanden, Member Advisory Committee of International Conference on Reactive Plasmas (ICRP) (since 2014), 2015*
31. *M.C.M. van de Sanden, KNAW committee member Jury new members Science Division (since 2014), 2015*
32. *M.C.M. van de Sanden, Scientific Advisory Board member Nanolab@TU/e TU Eindhoven (since 2013), 2015*
33. *M.C.M. van de Sanden, Member of Committee of the YES! Fellowship programme (Young Energy Scientist) (since 2014), 2015*
34. *S. Welzel, Member of the Organizing Committee of the 18th Workshop on the Exploration of Low Temperature Plasma Physics (WELTPP-18), Kerkrade, Netherlands, 2015*

Public events: 8

1. *Hannover Messe 2015 Exhibition stand FOM-Instituut DIFFER / FME-CWM, 2015, Contactpersoon: E. Langereis*
2. *Team Energy TU/e, 2015/02/25, Eindhoven, Netherlands, D.C.M. van den Bekerom, E. Langereis, F.M. Elam, Energy Cafe - Energy system integration: role for energy storage*
3. *CHAINS 2015 Chemistry as Innovating Science, 2015/11/30, Veldhoven, Netherlands, E. Langereis, Innovation Market Energy*
4. *Energy Storage Day 2015 at Vakbeurs Energie, 2015/10/07, Den Bosch, Netherlands, E. Langereis, The potential of CO_2-neutral fuels: research and technology development*
5. *SCOT mid-term conference Carbon Dioxide Utilisation: Catalyst for a European Industrial Renaissance, 2015/09/28, Essen, Germany, E. Langereis, A.P.H. Goede, M.C.M. van de Sanden, The potential of CO_2-neutral fuels: research and technology development*
6. *ECN/TNO workshop Electrification of the chemical industry, 2015/05/04, Rotterdam, Netherlands, E. Langereis, A.P.H. Goede, M.N. Tsampas, M.C.M. van de Sanden, Cross-linkin the whole value chain: fundamental research up to full scale implementation*
7. *International Plasma Chemistry Society (IPCS), 2015/07/05, Antwerp, Belgium, G.J. van Rooij, M.A. Gleeson, M.C.M. van de Sanden, ISPC Industrial day - Re-use of carbon dioxide*
8. *KNAW Workshop on Realizing a Sustainable Energy Future: Roles and Tasks for the World's Academies, 2015/06/26, Amsterdam, Netherlands, M.C.M. van de Sanden, J. Citrin, A DIFFER perspective on recent developments impacting a sustainable energy infrastructure in 2050*

Media: 15

1. *CO_2 als oplossing voor het klimaatprobleem, BNR Nieuwsradio, 2015/11/26, item with G.J. van Rooij*
2. *Alternatieven voor gas, BNR Nieuwsradio, 2015/02/11, item with M.C.M. van de Sanden*
3. *AMOLF en DIFFER samen in nanomaterialen voor duurzame zonnebrandstoffen, linkmagazine.nl, 2015/03/24, item with A. Baldi*
4. *Amolf en Differ werken samen aan nanomaterialen voor duurzame brandstoffen, EngineersOnline.nl, 2015/03/23, item with A. Baldi*
5. *Nooit meer lege batterijen door zonnebrandstof, kennislink.nl, 2015/09/08, item with A. Bieberle*
6. *HyPlasma: onderzoek naar opschaalbare Power-to-Gas technologie, energyvalley.nl, 2015/04/01, item with W.A. Bongers, S. Welzel*
7. *Differ werkt met Amolf samen aan zonnebrandstof, Eindhovens Dagblad, 20150320, item with General coverage*
8. *DIFFER ontwikkelt betere coating voor flexzonnecellen, Bits & Chips, 2015/09/24, item with General coverage*
9. *'Onderzoek is als topsport: wie is de eerste', Eindhovens Dagblad, 2015/06/13, item with R. Janssen*
10. *Differ en Syngaschem starten onderzoek naar opslag groene stroom, engineersonline.nl, 2015/04/20, item with M.C.M. van de Sanden*
11. *DIFFER en Syngaschem onderzoeken opslag groene stroom, engineeringnet.nl, 2015/04/20, item with M.C.M. van de Sanden*
12. *DIFFER en Syngaschem starten samen onderzoek naar opslag groene stroom, Solar Magazine, 2015/04/20, item with M.C.M. van de Sanden*
13. *Differ en Syngaschem starten onderzoek groene brandstoffen, Bits & Chips, 2015/04/17, item with M.C.M. van de Sanden*
14. *Differ ontwikkelt betere coating voor flexzonnecellen, Bits & Chips, 2015/09/24, item with S.A. Starostin, H.W. de Vries*
15. *Nederlandse onderzoekers ontdekken betere vochtbarrière voor zonnecellen, Solar Magazine, 2015/09/22, item with H.W. de Vries, S.A. Starostin*