DIFFER

Dutch Institute for
Fundamental Energy Research

APPENDIX
2016

WE ARE DIFFER. **SCIENCE FOR FUTURE ENERGY**

This appendix to the DIFFER annual report 2016 lists the scientific output at DIFFER in 2016 and gives an overview of the employees in the institute's groups.
The annual report and appendices can be found at www.differ.nl/about-us/annual-reports

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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*

Integrated Modelling and MHD

Program leader	*E. Westerhof*
Advisor	*J.P. Goedbloed*
CCER Tenure Trackers	*S. Er, S. Tao*
Research assistant	*R.H.J. Westermann*
PhD student (CCER S. Er)	*Q. Zhang*
Guest researchers	*J.L. Pratt, J. Resende de Andrade Lopes*

Computational Plasma Physics and Chemistry

Program leader	*P. Diomede*
PhD students	*R. Chandra, L. Vialetto*

Fusion Facilities and Instrumentation

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

Integrated Modelling and Transport

Program leader	*J. Citrin*
Senior scientists	*H.J. de Blank, G.M.D. Hogeweij*
Postdoc	*M. van Berkel*
PhD students	*A. Ho, M. Marin, B. Vanovac*
MSc student	*M. Machielsen*
Junior researcher	*K.L. van de Plassche*
Guest researchers	*O. Linder, Z. Liu (CCER, S. Er), N. Chennakeshava*

Plasma Edge Physics and Diagnostics

Program leader	*I.G.J. Classen*
Postdocs	*G. Ronchi, W.A.J. Vijvers*
PhD students	*G.R.A. Akkermans, J. Fu, A. Perek, R. Perillo, T. Ravensbergen*

Plasma Material Interactions

Program leader	*T.W. Morgan*
Senior scientist	*H.J. van der Meiden*
PhD students	*D.U.B. Aussems, G.G. van Eden, K. Jesko, M. Laki, V. Marques Pereira, C.K. Onwudinanti, W. Ou, S. Wang*
MSc students	*S.W.M. Camp, J.A. Rosas Saad*
Guest researchers	*P. Rindt, J. Wang, Y. Li, M. Zibrov*

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*
Lector	*P.C. Thüne*

Atmospheric Plasma Processing for Functional Films

Program leader	*H.W. de Vries*
PhD students	*F. Elam, Y. Liu, A. Meshkova*
MSc student	*K.C. van 't Veer*

Materials and Surface Science

Program leader	*M.A. Gleeson*
Postdoc	*A.J. Walsh*
PhD student	*T.T. Belete, D. Garcia Rodriguez, D. Sharma*
Guest researcher	*Z. Liu, R. van Lent*

Molecular Solar Energy (DIFFER-TUe group)

Program leader	*R. Janssen*

Nanomaterials for Energy Applications

Program leader	*A. Baldi*
Postdoc	*G. Kumari*
PhD student	*R. Kamarudheen, M. Parente*
MSc student	*R.F. Hamans*
BSc student	*R.M.C. Verbroekken*

Nonequilibrium Fuel Conversion

Program leader	*G.J. van Rooij*
Postdoc	*T.D. Butterworth*
PhD student	*D.C.M. van den Bekerom, T. Minea, Q. Ong*
MSc student	*D.A.C.M. Hage*

Electrochemical Materials and Interfaces

Program leader	*A. Bieberle*
Postdoc	*A.C. Bronneberg, X. Zhang*
PhD students	*K. George, Q. Liang, R. Sinha, Y. Zhao*
BSc student	*T. Bijsterbosch*
Guest researcher	*Q. Xue*

Catalytic and Electrochemical Processes for Energy Applications

Program leader	*M. Tsampas*
Postdoc	*V. Kyriankou, H.C. Patel*
PhD student	*G. Zafeiropoulos*
BSc student	*J. Zhou*
Guest researchers	*V. Di Palma, I. Dôgan*

Photonics for Energy

Program leader	*J. Gómez Rivas*
Postdocs	*A. Halpin, Q. Le Van, S. Wang*
PhD students	*A.M. Berghuis, N.J.J. van Hoof, G.W. Castellanos Gonzales, M. Ramezani*
MSc student	*P.J. van Veldhoven, S.E.T. ter Huurne*
Assistant	*L. van de Beek*
Guest researcher	*A. Gonzalez Curto, S. Eizagirre Barker, S.M. de Vega Esteban*
Guest research engineer (TU/e)	*R.M. Hjelmgart*
BSc student	*B. Lont*

Plasma Solar Fuels Devices

Program leader	*W.A. Bongers*
Postdocs	*T. Verreycken, J. Gao, F.J.J. Peeters*
PhD student	*A.J. Wolf*

Solar Fuels Facilities & Instrumentation

Program leader	*S. Welzel*
Research engineers	*B.S.Q. Elzendoorn, M.F. Graswinckel, B. van Hemert, P. Sallé, C.J.M.S. Stoyana, E. Zoethout*
Assistant	*B.N. Neissl*
BSc student	*M. Doudouh*

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*
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 den 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*
Technical Facilities	
Group leader	*K.T. Grootkarzijn*
Personnel	*H.P.L. Smeets*
Domestic Facilities	
Group leader	*J.E. Kragten*
Personnel	*F.F. Hekkenberg, I.J. Jorissen, J.C. Maarsseveen, S. van Schaik, P. Stekelenburg, J.B. Uwland, L.M. van de Ven*

appendix B

Output

DIFFER

Positions: 1

1. *W.R. Koppers, Member of the Fusion for Energy (F4E) Governing Board (since 2014)*

Media: 2

1. *BNN television, 2016/08/29, N. van Hoof, BNN Proefkonijnen - Kun je slootjespringen met een brommobiel?*
2. *BNN television, 2016/09/05, E. Langereis, BNN Proefkonijnen - Kun je over een rijdende auto heen rennen?*

Fusion Energy theme

PhD theses: 4

1. *A. Bogomolov, Visualisation of instabilities at the edge of ASDEX-Upgrade plasmas, PhD thesis at the Eindhoven University of Technology, 2016/02/29, Promotor: A.J.H. Donné, M.R. de Baar*
2. *H. van den Brand, Modelling and measurements for control of magnetic instabilities in tokamak plasmas, PhD thesis at the Eindhoven University of Technology, 2016/06/15, Promotor: M.R. de Baar, M. Steinbuch*
3. *F.F.E. Jaulmes, Kinetic behavior of ions in tokamak inductive scenarios, PhD thesis at the Eindhoven University of Technology, 2016/03/03, Promotor: A.J.H. Donné*
4. *I. Tanyeli, Helium ion induced nanostructuring of metal surface, PhD thesis at the Eindhoven University of Technology, 2016/01/11, Promotor: M.C.M. van de Sanden*

BSc theses: 2

1. *M. Niessen, (HBO scriptie Fontys Hogeschool, Eindhoven:) Thomson scattering on high and low density plasma, 2016, Mentor: H.J. van der Meiden*
2. *Y. Risters, (HBO scriptie Saxion Hogeschool, Enschede:) Laser Induced Breakdown Spectroscopy (LIBS) An Experimental Setup for Post-Mortem Analysis of Materials, 2016, Mentor: H.J. van der Meiden*

Publications in peer-reviewed scientific journals: 64

1. *T. Abrams, M.A. Jaworski, M. Chen, E.A. Carter, R. Kaita, D.P. Stotler, G. De Temmerman, T.W. Morgan, M.A. van den Berg, H.J. van der Meiden, Suppressed gross erosion of high-temperature lithium via rapid deuterium implantation, Nucl. Fusion 56 (2016) 016022*
2. *H. Arnichand, J. Citrin, S. Hacquin, R. Sabot, A. Krämer-Flecken, X. Garbet, C. Bourdelle, C. Bottereau, F. Clairet, J.C. Giacalone et al., Identification of trapped electron modes in frequency fluctuation spectra, Plasma Phys. Control. Fusion 58 (2016) 014037*
3. *K. Arshad, Y. Yuan, L. Cheng, J. Wang, Z.J. Zhou, G. De Temmerman, G.H. Lu, Deuterium blistering in tungsten and tungsten vanadium alloys, Fusion Eng. Des. 107 (2016) 25-31*
4. *D.I. Astakhov, W.J. Goedheer, C.J. Lee, V.V. Ivanov, V.M. Krivtsun, K.N. Koshelev, D.V. Lopaev, R.M. van der Horst, J. Beckers, E.A. Osorio et al., Exploring the electron density in plasma induced by EUV radiation: II. Numerical studies in argon and hydrogen, J. Phys. D: Appl. Phys. 49 (2016) 295204*
5. *A. Bakaeva, D. Terentyev, G. De Temmerman, K. Lambrinou, T.W. Morgan, A. Dubinko, P. Grigorev, K. Verbeken, J.M. Noterdaeme, Dislocation-mediated trapping of deuterium in tungsten under high-flux high-temperature exposures, J. Nucl. Mater. 479 (2016) 307-315*
6. *H.J. de Blank, Y.A. Kuznetsov, M.J. Pekker, D.W.M. Veldman, Degenerate Bogdanov-Takens bifurcations in a one-dimensional transport model of a fusion plasma, Phys. D 331 (2016) 13-26*
7. *C. Bourdelle, J. Citrin, B. Baiocchi, A. Casati, P. Cottier, X. Garbet, F. Imbeaux, JET Contributors, Core turbulent transport in tokamak plasmas: bridging theory and experiment with QuaLiKiz, Plasma Phys. Control. Fusion 58 (2016) 014036*
8. *H. van den Brand, M.R. de Baar, M. van Berkel, T.C. Blanken, F. Felici, E. Westerhof, M. Willensdorfer, ASDEX Upgrade team, EUROfusion MST1 Team, A model-based, multichannel, real-time capable sawtooth crash detector, Plasma Phys. Control. Fusion 58 (2016) 075002*
9. *R. Bravenec, J. Citrin, J. Candy, P. Mantica, T. Görler, JET Contributors, Benchmarking the GENE and GYRO codes through the relative roles of electromagnetic and E × B stabilization in JET high-performance discharges, Plasma Phys. Control. Fusion 58 (2016) 125018*
10. *B. Bruneau, T. Lafleur, T. Gans, D. O'Connell, A. Greb, I. Korolov, A. Derzsi, Z. Donko, S. Brandt, P. Diomede et al., Effect of gas properties on the dynamics of the electrical slope asymmetry effect in capacitive plasmas: comparison of Ar, H 2 and CF 4, Plasma Sources Sci. Technol. 25 (2016) 01LT02*
11. *B. Bruneau, P. Diomede, D.J. Economou, S. Longo, T. Gans, D. O'Connell, A. Greb, E. Johnson, J.P. Booth, Capacitively coupled hydrogen plasmas sustained by tailored voltage waveforms: excitation dynamics and ion flux asymmetry, Plasma Sources Sci. Technol. 25 (2016) 045019*
12. *L. Cheng, Z.H. Zhao, G. De Temmerman, Y. Yuan, T.W. Morgan, L.P. Guo, B. Wang, Y. Zhang, B.Y. Wang, P. Zhang et al., Effect of noble gas ion pre-irradiation on deuterium retention in tungsten, Phys. Scr. 2016 (2016) 014001*
13. *C. Costin, V. Anita, G. Popa, J. Scholten, G. De Temmerman, Tailoring the charged particle fluxes across the target surface of Magnum-PSI, Plasma Sources Sci. Technol. 25 (2016) 025023*
14. *C. Darbos, F. Albajar, T. Bonicelli, G. Carannante, M. Cavinato, F. Cismondi, G. Denisov, D. Farina, M. Gagliardi, D.M.S. Ronden et al., Status of the ITER Electron Cyclotron Heating and Current Drive System, J. Infrared Millim. Terahertz Waves 37 (2016) 4-20*
15. *H. Doerk, C. Challis, J. Citrin, J. Garcia, T. Görler, F. Jenko, JET Contributors, Gyrokinetic study of turbulence suppression in a JET-ILW power scan, Plasma Phys. Control. Fusion 58 (2016) 115005*
16. *A.J.H. Donné, S. Cowley, T. Jones, X. Litaudon, JET Contributors, Risk Mitigation for ITER by a Prolonged and Joint International Operation of JET, J. Fusion Energy 35 (2016) 85-93*
17. *G.G. van Eden, T.W. Morgan, D.U.B. Aussems, M.A. van den Berg, K. Bystrov, M.C.M. van de Sanden, Self-Regulated Plasma Heat Flux Mitigation Due to Liquid Sn Vapor Shielding, Phys. Rev. Lett. 116 (2016) 135002*
18. *G.G. van Eden, M.L. Reinke, B.J. Peterson, T.K. Gray, L.F. Delgado-Aparicio, M.A. Jaworski, J. Lore, K. Mukai, R. Sano, S.N. Pandya et al., Design and characterization of a prototype divertor viewing infrared video bolometer for NSTX-U, Rev. Sci. Instrum. 87 (2016) 11D402*
19. *B. van Es, B. Koren, H.J. de Blank, Finite-volume scheme for anisotropic diffusion, J. Comput. Phys. 306 (2016) 422-442*
20. *S.J. Freethy, G.D. Conway, I. Classen, A.J. Creely, T. Happel, A. Köhn, B. Vanovac, A.E. White, Measurement of turbulent electron temperature fluctuations on the ASDEX Upgrade tokamak using correlated electron cyclotron emission, Rev. Sci. Instrum. 87 (2016) 11E102*

21. *Y. Gasparyan, V. Efimov, K. Bystrov, Helium concentration measurement in tungsten fuzz-like nanostructures by means of thermal desorption spectroscopy, Nucl. Fusion 56 (2016) 054002*
22. *P. Grigorev, L. Buzi, A. Bakaeva, D. Terentyev, G. De Temmerman, G. van Oost, J.M. Noterdaeme, Numerical analysis of TDS spectra under high and low flux plasma exposure conditions, Phys. Scr. 2016 (2016) 014039*
23. *S. Hacquin, J. Citrin, H. Arnichand, R. Sabot, C. Bourdelle, X. Garbet, A. Krämer-Flecken, Tore Supra team, Simulation of core turbulence measurement in Tore Supra ohmic regimes, Phys. Plasmas 23 (2016) 092303*
24. *J.W. Haverkort, H.J. de Blank, G.T.A. Huysmans, J. Pratt, B. Koren, Implementation of the full viscoresistive magnetohydrodynamic equations in a nonlinear finite element code, J. Comput. Phys. 316 (2016) 281-302*
25. *Y. Hayashi, K. Jesko, H.J. van der Meiden, J.W.M. Vernimmen, T.W. Morgan, N. Ohno, S. Kajita, M. Yoshikawa, S. Masuzaki, Plasma detachment study of high density helium plasmas in the Pilot-PSI device, Nucl. Fusion 56 (2016) 126006*
26. *R.M. van der Horst, J. Beckers, E.A. Osorio, D.I. Astakhov, W.J. Goedheer, C.J. Lee, V.V. Ivanov, V.M. Krivtsun, K.N. Koshelev, D.V. Lopaev et al., Exploring the electron density in plasma induced by EUV radiation: I. Experimental study in hydrogen, J. Phys. D: Appl. Phys. 49 (2016) 145203*
27. *L. Horton, P. Batistoni, H. Boyer, C. Challis, D. Ciric, A.J.H. Donné, L.G. Eriksson, J. Garcia, L. Garzotti, S. Gee et al., JET experiments with tritium and deuterium–tritium mixtures, Fusion Eng. Des. 109–111, Part A (2016) 925-936*
28. *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 sawteeth in ASDEX Upgrade, Nucl. Fusion 56 (2016) 112012*
29. *Y.Z. Jia, W. Liu, B. Xu, G.N. Luo, S.L. Qu, T.W. Morgan, G. De Temmerman, Mechanism for orientation dependence of blisters on W surface exposed to D plasma at low temperature, J. Nucl. Mater. 477 (2016) 165-171*
30. *A.W. de Jonge, J.G.W. Wildenbeest, H. Boessenkool, D.A. Abbink, The Effect of Trial-by-trial Adaptation on Conflicts in Haptic Shared Control for Free-Air Teleoperation Tasks, IEEE Trans. Haptics 9 (2016) 111 - 120*
31. *A. Khan, G. De Temmerman, T.W. Morgan, M.B. Ward, Effect of rhenium addition on tungsten fuzz formation in helium plasmas, J. Nucl. Mater. 474 (2016) 99-104*
32. *T.P.C. Klaver, E. del Rio, G. Bonny, S.M. Eich, A. Caro, Inconsistencies in modelling interstitials in FeCr with empirical potentials, Comp. Mater. Sci. 121 (2016) 204-208*
33. *T.P.C. Klaver, K. Nordlund, T.W. Morgan, E. Westerhof, B.J. Thijsse, M.C.M. van de Sanden, Molecular dynamics simulations of ballistic He penetration into W fuzz, Nucl. Fusion 56 (2016) 126015*
34. *V.G. Konovalov, V.S. Voitsenya, M.N. Makhov, I.V. Ryzhkov, A.N. Shapoval, S.I. Solodovchenko, A.F. Stan, V.N. Bondarenko, A.J.H. Donné, A. Litnovsky, Image quality method as a possible way of in situ monitoring of in-vessel mirrors in a fusion reactor, Rev. Sci. Instrum. 87 (2016) 093507*
35. *K. Landheer, W.J. Goedheer, I. Poulios, R.E.I. Schropp, J.K. Rath, Chemical sputtering by H_2^+ and H_3^+ ions during silicon deposition, J. Appl. Phys. 120 (2016) 053304*
36. *K. Landheer, W.J. Goedheer, I. Poulios, R.E.I. Schropp, J.K. Rath, Ion bombardment measurements and simulations of a low temperature VHF PECVD SiH_4-H_2 discharge in the a-Si:H to µc-Si:H transition regime, Phys. Status Solidi A - Appl. Mat. 213 (2016) 1680–1685*
37. *M. Lennholm, D. Frigione, J.P. Graves, P.S. Beaumont, T. Blackman, I.S. Carvalho, I. Chapman, R. Dumont, R. Felton, L. Garzotti et al., Real-time control of ELM and sawtooth frequencies: similarities and differences, Nucl. Fusion 56 (2016) 016008*
38. *E. Lerche, M. Goniche, P. Jacquet, D. van Eester, V. Bobkov, L. Colas, C. Giroud, I. Monakhov, F.J. Casson, M. Tsalas et al., Optimization of ICRH for core impurity control in JET-ILW, Nucl. Fusion 56 (2016) 036022*
39. *T. Lunt, G.P. Canal, B.P. Duval, Y. Feng, B. Labit, P. McCarthy, H. Reimerdes, W.A.J. Vijvers, M. Wischmeier, Numerical study of potential heat flux mitigation effects in the TCV snowflake divertor, Plasma Phys. Control. Fusion 58 (2016) 045027*
40. *L. Marot, G. De Temmerman, M.A. van den Berg, P.O. Renault, G. Covarel, M. Joanny, J.M. Travère, R. Steiner, D. Mathys, E. Meyer, ITER first mirror mock-ups exposed in Magnum-PSI, Nucl. Fusion 56 (2016) 066015*
41. *H.J. van der Meiden, J.W.M. Vernimmen, K. Bystrov, K. Jesko, M.Y. Kantor, G. De Temmerman, T.W. Morgan, Collective Thomson scattering system for determination of ion properties in a high flux plasma beam, Appl. Phys. Lett. 109 (2016) 261102*
42. *A. Mohan, R.E.I. Schropp, I. Poulios, W.J. Goedheer, J.K. Rath, Optimizing the parameter space for increased crystallinity of silicon nanoparticles grown in the gas phase, Phys. Status Solidi A - Appl. Mat. 213 (2016) 1826–1830*

43. K. Muraoka, F. Wagner, Y. Yamagata, A.J.H. Donné, Short- and long-range energy strategies for Japan and the world after the Fukushima nuclear accident, J. Instrum. 11 (2016) C01082
44. S. Pak, L. Bertalot, M.S. Cheon, T. Giacomin, C.J.M. Heemskerk, J.F. Koning, H.G. Lee, G. Nemtcev, D.M.S. Ronden, C.R. Seon et al., Engineering issues on the diagnostic port integration in ITER upper port 18, Fusion Eng. Des. 109-111 (2016) 824–829
45. S. Pak, R. Feder, T. Giacomin, J. Guirao, S. Iglesias, F. Josseaume, M. Kalish, D. Loesser, P. Maquet, D. Ronden et al., Final design of the generic upper port plug structure for ITER diagnostic systems, Fusion Eng. Des. 102 (2016) 21 - 27
46. H.J. Park, M.C. So, D. Gosztola, G.P. Wiederrecht, J.D. Emery, A.B.F. Martinson, S. Er, C.E. Wilmer, N.A. Vermeulen, A. Aspuru-Guzik et al., Layer-by-Layer Assembled Films of Perylene Diimide- and Squaraine-Containing Metal-Organic Framework-like Materials: Solar Energy Capture and Directional Energy Transfer, ACS Appl. Mater. Interfaces 8 (2016) 24983-24988
47. B.J. Peterson, R. Sano, M.L. Reinke, J. Canik, L.F. Delgado-Aparicio, J. Lore, K. Mukai, T.K. Gray, G.G. van Eden, M.A. Jaworski, Preliminary design of a tangentially viewing imaging bolometer for NSTX-U, 87, Rev. Sci. Instrum. 87 (2016) 11D410
48. J. Pratt, G.T.A. Huijsmans, E. Westerhof, Early evolution of electron cyclotron driven current during suppression of tearing modes in a circular tokamak, Phys. Plasmas 23 (2016) 102507
49. M.J. Püschel, B.J. Faber, J. Citrin, C.C. Hegna, P.W. Terry, D.R. Hatch, Stellarator Turbulence: Subdominant Eigenmodes and Quasilinear Modeling, Phys. Rev. Lett. 116 (2016) 085001
50. J. Rasmussen, S.K. Nielsen, M. Stejner, J. Galdon-Quiroga, M. Garcia-Munoz, B. Geiger, A.S. Jacobsen, F. Jaulmes, S.B. Korsholm, N. Lazanyi et al., Collective Thomson scattering measurements of fast-ion transport due to sawtooth crashes in ASDEX Upgrade, Nucl. Fusion 56 (2016) 112014
51. S. Ratynskaia, P. Tolias, I. Bykov, D. Rudakov, M. de Angeli, L. Vignitchouk, D. Ripamonti, G. Riva, S. Bardin, H. van der Meiden et al., Interaction of adhered metallic dust with transient plasma heat loads, Nucl. Fusion 56 (2016) 066010
52. M.L. Reinke, M. Han, G. Liu, G.G. van Eden, R. Evenblij, M. Haverdings, B.C. Stratton, Development of plasma bolometers using fiber-optic temperature sensors, Rev. Sci. Instrum. 87 (2016) 11E708
53. U. Schneidewind, M. van Berkel, C. Anibas, G. Vandersteen, C. Schmidt, I. Joris, P. Seuntjens, O. Batelaan, H.J. Zwart, LPMLE3: A novel 1-D approach to study water flow in streambeds using heat as a tracer, Water Resour. Res. 52 (2016) 6596-6610
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55. M. Thompson, A. Deslandes, T.W. Morgan, R.G. Elliman, G. De Temmerman, P. Kluth, D. Riley, C.S. Corr, Observation of a helium ion energy threshold for retention in tungsten exposed to hydrogen/helium mixture plasma, Nucl. Fusion 56 (2016) 104002
56. B. Tobias, M. Chen, I.G.J. Classen, C.W. Domier, R. Fitzpatrick, B.A. Grierson, N.C. Luhmann, C.M. Muscatello, M. Okabayashi, K.E.J. Olofsson et al., Rotation profile flattening and toroidal flow shear reversal due to the coupling of magnetic islands in tokamaks, Phys. Plasmas 23 (2016) 056107
57. P. Tolias, S. Ratynskaia, M. de Angeli, G. De Temmerman, D. Ripamonti, G. Riva, I. Bykov, A. Shalpegin, L. Vignitchouk, F. Brochard et al., Dust remobilization in fusion plasmas under steady state conditions, Plasma Phys. Control. Fusion 58 (2016) 025009
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1. *Werkgroep Natuurkunde Didaktiek Conferentie 2016, 2016/12/16, Utrecht, Netherlands, M.R. de Baar, Line of sight techniek voor het observeren en controleren van magnetische instabiliteiten in een kernfusiereactor*
2. *Annual conference M2i, 2016/12/12, Nieuwegein, Netherlands, M.R. de Baar, Too hot to handle; Materials for Nuclear Fusion*
3. *Instituto de Plasmas e Fusao Nuclear, IST, 2016/03/11, Lisbon, Portugal, M.R. de Baar, M. van Berkel, H. van den Brand, W. Bongers, F. Felici, B.A. Hennen, G. Hommen, M. Lauret, B. Maljaars, P.W.J.M. Nuij et al., Sensors and models for the control of (nuclear fusion) plasmas*
4. *Theory of fusion plasmas Joint Varenna-Lausanne international workshop, 2016/08/29, Varenna, Italy, B. Baiocchi, P. Mantica, J.F. Artaud, V. Basiuk, C. Bourdelle, J. Citrin, J. Garcia, F. Imbeaux, F. Köchl, A. Loarte et al., Simulations of ITER H-mode scenarios using the new generation of quasi-linear models*
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6. *Lorentz Workshop Taming the Flame - Divertor Detachment Control in Tokamaks, 2016/09/19, Leiden, Netherlands, J. Citrin, C. Angioni, C. Bourdelle, S. Breton, Y. Camenen, F.J. Casson, Heavy Impurity Core Transport: prediction and control*
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10. *43th EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, P. Diomede, B. Bruneau, T. Lafleur, D.J. Economou, S. Longo, T. Gans, D. O'Connell, A. Greb, E. Johnson, J.P. Booth, Modelling and experimental validation of capacitively coupled plasmas in hydrogen, I1.302*
11. *Workshop on Metrology Challenges for Nuclear Fusion, 2016/11/22, Delft, Netherlands, A.J.H. Donné, Measurement Challenges in Nuclear Fusion*
12. *Space for Inspiration, 2016/09/14, London, UK, A.J.H. Donné, Synergies and cross-fertilisation between fusion and space science*
13. *18th International Congress on Plasma Physics ICPP 2016, 2016/06/27, Kaohsiung, Taiwan, A.J.H. Donné, D. Borba, L. Horton, T. Jones, X. Litaudon, JET Contributors, Optimising the ITER research plan via JET, A1A2-2*
14. *20th Pacific Basin Nuclear Conference, 2016/04/05, Beijing, China, A.J.H. Donné, The European Fusion Roadmap*
15. *43th EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, F. Felici, T. Blanken, E. Maljaars, H. van den Brand, C. Galperti, J.M. Moret, A. Teplukhina, O. Sauter, C. Rapson, W. Treutterer et al., Control-oriented modeling of tokamak plasmas for real-time plasma monitoring, profile control and MHD control, I4.112*
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18. *CSER conference Computational Sciences for Future Energy 2016, 2016/10/11, Utrecht, Netherlands, S. Longo, P. Diomede, M.C.M. van de Sanden, New techniques for kinetic modeling of CO_2 plasmas*
19. *2nd International Workshop on Models and Data for Plasma-Material Interaction in Fusion Devices MoD-PMI 2016, 2016/06/22, Loughborough, UK, T.W. Morgan, Liquid metals as plasma facing materials for future fusion reactors, I4*
20. *22nd ITPA Divertor and Scrape-off Layer Topical Group Meeting, 2016/01/25, Frascati, Italy, T.W. Morgan, Self-regulated plasma heat flux mitigation due to liquid Sn vapour shielding*
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1. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, M. de Angeli, P. Tolias, S. Ratynskaia, D. Ripamonti, G. Riva, S. Bardin, K. Bystrov, G. De Temmerman, Remobilization of tungsten dust from castellated plasma facing components, Poster, P1.72*
2. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, D.U.B. Aussems, K. Bystrov, H. van der Meiden, J. Vernimmen, R. van de Sanden, Fast measurements of carbon sputtering under transiently changing plasma flux, Poster, P3.123*
3. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, M. Balden, S. Elgeti, M. Zibrov, K. Bystrov, T.W. Morgan, Temperature effect on the surface morphology, D retention and erosion of EUROFER exposed to low-energy high-flux D plasma, Poster, P1.11*

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7. *Eindhoven Fusion Day 2016, 2016/01/13, Eindhoven, Netherlands, T. Blanken, F. Felici, T. Ravensbergen, M. de Baar, W. Heemels, Model-based reconstruction and control of plasma density, Oral*
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11. *17th ITPA Transport & Confinement Topical Group Meeting, 2016/10/24, Naka, Japan, J. Citrin, S. Breton, F. Felici, F. Imbeaux, K. van de Plassche, J. Redondo, T. Aniel, J.F. Artaud, B. Baiocchi, C. Bourdelle et al., Status and future plans for neural network emulation of quasilinear turbulent transport models, Oral*
12. *Gyrokinetic Theory Working Group Meeting, 2016/09/26, Madrid, Spain, J. Citrin, C. Bourdelle, N. Bonanomi, T. Görler, P. Mantica, Saturation rules for ETG transport in quasilinear transport models, Oral*
13. *9th Plasma Kinetics Working Group Meeting, 2016/07/24, Vienna, Austria, J. Citrin, C. Bourdelle, F.J. Casson, C. Angioni, S. Breton, F. Felici, X. Garbet, O. Gurcan, L. Garzotti, F. Koechl et al., Local, flux-driven, multi-channel simulations with the quasilinear gyrokinetic tokamak transport model QuaLiKiz, Oral*
14. *9th Plasma Kinetics Working Group Meeting, 2016/07/24, Vienna, Austria, J. Citrin, H. Arnichand, J. Bernardo, C. Bourdelle, X. Garbet, S. Hacquin, M.J. Püschel, R. Sabot, Comparison between measured and predicted turbulence frequency spectra in ITG and TEM regimes, Oral*
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19. *Eindhoven Fusion Day 2016, 2016/01/13, Eindhoven, Netherlands, J. Citrin, S. Breton, F. Felici, J. Redondo, T. Aniel, J.F. Artaud, C. Bourdelle, Y. Camenen, F. Imbeaux, More in less: boiling down tokamak transport prediction, Oral*
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24. *45th Meeting of the IEA Fusion Power Coordination Committee, 2016/01/27, Paris, France, A.J.H. Donné, G. Federici, R.P. Wenninger, Overview of Design and R&D Activities towards a European DEMO, Oral*
25. *21st Topical Conference on High-Temperature Plasma Diagnostics (HTPD 2016), 2016/06/05, Madison, WI, USA, G.G. van Eden, M.L. Reinke, B.J. Peterson, T.K. Gray, L. Delgado-Aparicio, M.A. Jaworski, J. Lore, K. Mukai, R. Sano, S.N. Pandya et al., Design and characterization of a prototype divertor viewing InfraRed Video Bolometer for NSTX-U, Poster, Session 4*
26. *26th IAEA Fusion Energy Conference, 2016/10/17, Kyoto, Japan, G. Falchetto, P. Strand, D. Vlad, D. Kalupin, M. Airila, A. Alberto Morillas, C. Boulbe, R. Coelho, D. Coster, E. Westerhof et al., EUROfusion Integrated Modelling (EU-IM) capabilities and selected physics applications, Poster, TH/P2-13*
27. *Eindhoven Fusion Day 2016, 2016/01/13, Eindhoven, Netherlands, F. Felici, B. Maljaars, T. Blanken, H. van den Brand, A. Palha, Control of fusion plasmas at TU/e Mechanical Engineering, Oral*
28. *43rd EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, S.J. Freethy, G.D. Conway, I. Classen, A. Creely, T. Happel, B. Vanovac, A. White, ASDEX Upgrade team, Measurement of turbulent electron temperature fluctuations on the ASDEX Upgrade tokamak using correlated Electron Cyclotron Emission, Poster, P1.024*
29. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, Y. Gasparyan, V. Efimov, A. Pisarev, K. Gutorov, K. Bystrov, Helium concentration measurement in tungsten fuzz-like nanostructures by means of thermal desorption spectroscopy, Poster, P3.7*
30. *43rd EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, J.P. Goedbloed, The Spectral Web: A new theory of the stability of stationary plasma flows, Oral, O3.406*
31. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, D. Guilhem, J. Bucalossi, S. Burles, Y. Corre, F. Ferlay, M. Firdaouss, P. Languille, M. Lipa, A. Martinez, T. Morgan et al., Qualifying high heat flux tungsten plasma facing components for WEST operation, Poster, P1.107*
32. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, J.R. Harrison, W.A.J. Vijvers, C. Theiler, B. Duval, S. Elmore, B. Labit, B. Lipschultz, C. Tsui, H. Reimerdes, U. Sheikh et al., Recent Detachment Studies on the TCV Tokamak, Poster, P1.120*
33. *21st Joint EU-US Transport Task Force Meeting, 2016/09/06, Leysin, Switzerland, G.M.D. Hogeweij, H. van den Brand, F. Felici, M. Preynas, O. Sauter, Modelling NTM evolution and its effect on transport in TCV, Poster, P1.2*
34. *JET JINTRAC Meeting, 2016/04/21, Culham, UK, G.M.D. Hogeweij, I. Chapman, Modelling support needs for M15-08, Integrating the building blocks of the ITER scenario, Oral*
35. *JET M15-08 Kick off Meeting, 2016/01/20, Culham, UK, G.M.D. Hogeweij, I. Chapman, Integrating the building blocks of the ITER scenario - Modelling support needs and plans, Oral*
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37. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, F. Jaulmes, E. Westerhof, Numerical investigation of the interaction of fast particles with Toroidal Alfven Eigenmodes in tokamak plasma, Poster, P8.005*
38. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, K. Jesko, H.J. van der Meiden, J.P. Gunn, J. Vernimmen, S. van Limpt, T.W. Morgan, G. De Temmerman, Plasma pressure and particle loss studies in the Pilot-PSI high flux linear plasma generator, Poster, P3.102*
39. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, Y.Z. Jia, W. Liu, B. Xu, G.N. Luo, S.L. Qu, W.Q. Chen, T.W. Morgan, G. De Temmerman, Mechanism for orientation dependence of blisters on W surface exposed to high flux D plasma, Poster, P2.1*
40. *TEC meeting on Radiation effects and plasma wall interaction in advanced materials for fusion applications, 2016/06/30, Mol, Belgium, P. Klaver, T.W. Morgan, E. Westerhof, B.J. Thijsse, M.C.M. van de Sanden, Ballistic He penetration into W fuzz, Oral*
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45. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, V. Kvon, T.W. Morgan, R.S. Al, K. Bystrov, Cavity Ring Down Spectroscopy (CRDS) measurements of the erosion of liquid tin in Pilot-PSI, Poster, P1.64*
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47. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, S. van Limpt, W.A.J. Vijvers, B. Mumgaard, Y. Andrebe, M.R. de Baar, B.P. Duval, R.A.H. Engeln, U. Fantz, R.J.E. Jaspers, B. Lamers et al., MANTIS: a multi-spectral imaging diagnostic to determine the shape and state of tokamak edge plasmas at high time-resolution, Poster, B17*
48. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, S. van Limpt, W. Vijvers, Y. Andrebe, B. Duval, S. van Luijn, B. Mumgaard, M.R. de Baar, MANTIS: a multi-spectral imaging diagnostic to determine the shape and state of tokamak edge plasmas at high time-resolution, Poster, P8.014*
49. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, W. Lu, H.J. de Blank, P.W.C. Groen, Plasma exhaust modeling: from linear machine to tokamak divertor, Poster, A16*
50. *21st Joint EU-US Transport Task Force Meeting, 2016/09/06, Leysin, Switzerland, P. Mantica, N. Bonanomi, R. Bravenec, J. Citrin, E. Fable, C. Giroud, J.C. Hillesheim, C. Perez von Thun, G. Staebler, M. Tsalas et al., Fast ion enhanced non-linear electromagnetic stabilization of ITG transport: new JET results in absence of rotation and model validation, Poster*
51. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, J. Matejicek, V. Weinzettl, M. Vilémová, T.W. Morgan, G. De Temmerman, M. Dimitrova, J. Cavalier, J. Adamek, A. Jäger, ELM-induced arcing on tungsten fuzz in the COMPASS divertor region, Poster, P1.61*
52. *IAEA, 2016/10/17, Kyoto, Japan, G. Mazzitelli, M.L. Apicella, M. Iafrati, G. Apruzzese, A. Buscarino, G. Calabro, C. Corradino, F. Crescenzi, L. Fortuna, T.W. Morgan et al., Liquid metal experiments on FTU, Poster*
53. *Annual meeting Eurofusion, 2016/11/22, Madrid, Spain, H. van der Meiden, Plasma characterization (SP7.4) & Quantification of LIBS (SP7.8), Oral*
54. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, H. van der Meiden, J.W.M. Vernimmen, K. Bystrov, K. Jesko, G. De Temmerman, T.W. Morgan, Novel collective Thomson scattering system for direct determination of ion temperature and plasma velocity in a high flux plasma beam, Oral, PW6.5*
55. *Annual meeting Eurofusion, 2016/11/22, Madrid, Spain, T.W. Morgan, Power handling of a liquid-metal based CPS under high steady state heat and particle fluxes, Oral*
56. *TEC meeting on Radiation effects and plasma wall interaction in advanced materials for fusion applications, 2016/06/30, Mol, Belgium, T.W. Morgan, Status of Magnum and future of Pilot facilities at DIFFER, Oral*
57. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, T.W. Morgan, A. Vertkov, K. Bystrov, G. Mazzitelli, Power handling of a liquid-metal based CPS structure under high steady state heat and particle fluxes, Oral, O.20*
58. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, T.W. Morgan, G.G. van Eden, M. van den Berg, V. Kvon, D. Aussems, K. Bystrov, M.C.M. van de Sanden, Self-regulated plasma heat flux mitigation due to liquid Sn vapour shielding, Poster, P8.008*
59. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, A.L. Neff, J.P. Allain, K. Bystrov, T.W. Morgan, Elucidating behavior of Li-based surfaces on W substrates under high-temperature and high-flux He plasmas in Pilot-PSI, Poster, P3.75*
60. *43rd EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, S.P. Pehkonen, T. Tala, A. Salmi, B. Duval, C. Giroud, J. Ferreira, J. Hillesheim, S. Menmuir, M. Tsalas, M. Maslov et al., Normalised Gyroradius Scaling of Intrinsic Torque in JET, Poster, P2.011*
61. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, R. Perillo, I.G.J. Classen, T.W. Morgan, M.R. de Baar, Simulating Edge Localized Modes in linear plasma device Magnum-PSI, Poster, B2*
62. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, K. Piip, H.J. van der Meiden, K. Bystrov, L. Hämarik, J. Karhunen, M. Aints, M. Laan, P. Paris, H. Seemen, A. Hakola et al., Loading of deuterium and helium by Pilot-PSI plasma and their detection by in-situ LIBS, Poster, P2.105*

63. *43rd EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, S. Ratynskaia, G. Dilecce, H.J. van der Meiden, P. Tolias, J. Vernimmen, M.C.M. van de Sanden, L.M. Martini, P. Tosi, P.M. Wortman, BABE - a test bed for fluctuation theory, Poster, P2.112*
64. *26th IAEA Fusion Energy Conference, 2016/10/17, Kyoto, Japan, H. Reimerdes, J.R. Harrison, F. Crisanti, B. Duval, B. Labit, T. Lunt, R. Maurizio, V. Pericoli, U. Sheikh, W. Vijvers et al., TCV Experiments towards the Development of a Plasma Exhaust Solution, Oral, Wed 19/10*
65. *26th IAEA Fusion Energy Conference, 2016/10/17, Kyoto, Japan, H. Reimerdes, J.R. Harrison, F. Crisanti, B. Duval, B. Labit, T. Lunt, R. Maurizio, V. Pericoli, U. Sheikh, W. Vijvers et al., TCV Experiments towards the Development of a Plasma Exhaust Solution, Poster, EX/2-3*
66. *ITER meeting, 2016/03/24, Cadarache, France, D.M.S. Ronden, C.J.M. Heemskerk, J.F. Koning, J. van Oosterhout, RHCA Lessons learned on maintenance of ITER port plugs, Oral*
67. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, F.L. Tabares, E. Oyarzabal, A.B. Martin-Rojo, D. Tafalla, A. de Castro, V. Kvon, J. Loueriro, H. Fernandes, R. Mateus, E. Alves et al., Experimental tests of LiSn alloys as potential liquid metal for the Divertor target in a Fusion Reactor, Poster, P1.81*
68. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, C. Theiler, B. Lipschultz, F. Crisanti, B. Duval, S. Elmore, E. Giovannozzi, J.R. Harrison, P. Innocente, B. Labit, W.A.J. Vijvers et al., Results from recent detachment experiments in alternative divertor geometries on TCV, Poster, P2.114*
69. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, P. Tolias, S. Ratynskaia, L. Vignitchouk, A. Shalpegin, M. de Angeli, F. Brochard, H.J. van der Meiden, Experimental validation of the analytical model for tungsten dust wall mechanical impacts incorporated in the MIGRAINe dust dynamics code, Poster, P2.60*
70. *43rd EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, B. Vanovac, I.G.J. Classen, S.S. Denk, M. Dunne, E. Viezzer, F. Orain, N.C. Luhmann, Jr., ASDEX Upgrade team, ELM filaments on ASDEX Upgrade: ECEI observations and modelling, Poster, P1.014*
71. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, B. Vanovac, I. Classen, C.W. Domier, N.C. Luhmann, A.V. Bogomolov, W. Suttrop, B.J. Tobias, Edge temperature fluctuation measurements with the upgraded ECEI diagnostics on ADEX upgrade, Poster, P8.006*
72. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, K. Verhaegh, B.P. Duval, B. Lipschultz, J. Harrison, B. Labit, T. Lunt, R. Maurizio, C. Marini, F. Nespoli, W.A.J. Vijvers et al., Spectroscopic investigations of volumetric recombination in the TCV divertor, Poster, P2.113*
73. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, J. Vernimmen, H.J. van der Meiden, T. Morgan, Multi-pass application for Magnum-PSI collective Thomson scattering system, Poster, P8.015*
74. *26th IAEA Fusion Energy Conference, 2016/10/17, Kyoto, Japan, N. Vianello, B. Schneider, R. Schrittwieser, M. Spolaore, D. Carralero, J. Madsen, C. Tsui, C. Theiler, S. Allan, W. Vijvers et al., On Filamentary Transport in the TCV Tokamak: Addressing the Role of the Parallel Connection Length, Poster, EX/P8-26*
75. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, L. Vignitchouk, M. Kantor, S. Ratynskaia, P. Tolias, G.L. Delzanno, H.J. van der Meiden, M. de Angeli, I. Bykov, A. Shalpegin, Tungsten dust heating in divertor-like plasmas: modelling and experiments, Poster, P3.60*
76. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, W. Vijvers, H.J. van der Meiden, M.R. de Baar, B. Duval, J. Harrison, B. Labit, S. van Limpt, B. Lipschultz, T. Lunt, H. Reimerdes et al., Heat load mitigation in tokamak fusion reactors with alternative magnetic geometries of the plasma exhaust, Poster, P8.013*
77. *43rd EPS Conference on Plasma Physics, 2016/07/04, Leuven, Belgium, E. Westerhof, J. Pratt, Benchmarking the generalized Rutherford equation with reduced MHD simulations, Poster, P5.056*
78. *22nd PSI Conference 2016, 2016/05/30, Rome, Italy, M. Zibrov, M. Balden, K. Bystrov, T.W. Morgan, M. Mayer, Deuterium trapping and surface modification of polycrystalline tungsten exposed to high-flux plasmas at high fluences, Poster, P1.94*

Seminars: 11

1. *Eurofusion General assembly, 2016/07/11, Eindhoven, Netherlands, M.R. de Baar, Dutch research programme on Nuclear Fusion*
2. *Francken Symposium: Growing smaller, 2016/05/11, Groningen, Netherlands, M.R. de Baar, Control of performance and stability of fusion plasma*

3. *Institute of Plasma Physics and Laser Microfusion, 2016/12/01, Warsaw, Poland, A.J.H. Donné, Seminar: EUROfusion: present status and perspectives*
4. *National Institute for Fusion Science, 2016/10/31, Toki, Japan, A.J.H. Donné, Seminar: Challenges on the way to fusion electricity*
5. *Twente University, 2016/07/07, Enschede, Netherlands, A.J.H. Donné, Seminar: Policy and facts of European fusion research*
6. *Serbian Academy of Science and Arts, 2016/06/13, Belgrade, Serbia, A.J.H. Donné, Seminar: Nuclear Fusion: from Science Fiction to Science Fact*
7. *National Institutes for Quantum and Radiological Science and Technology (QST), 2016/04/19, Naka, Japan, A.J.H. Donné, Seminar: Status of Fusion Research in Europe*
8. *China ITER Domestic Agency, 2016/04/05, Beijing, China, A.J.H. Donné, Seminar: Challenges on the road towards fusion electricity*
9. *Netherlands Metrology Institute, van Swinden Laboratory, 2016/03/04, Delft, Netherlands, A.J.H. Donné, Seminar: Diagnosing the Fusion Roadmap*
10. *ARCNL colloquium, 2016/06/29, Amsterdam, Netherlands, H. van der Meiden, Incoherent and collective Thomson scattering for the determination of electron and ion properties in Magnum-PSI*
11. *EnergyDays TU/e, 2016/03/17, Eindhoven, Netherlands, T. Morgan, Touching the sun: finding materials for fusion reactors*

Public events & industry contacts: 4

1 *2016/06/02, Eindhoven, Netherlands, G.G. van Eden, Jonge professoren op het Podium, talkshow, mini-colleges, filmfragmenten in Parktheater Eindhoven*
2. *ASML, 2016/10/17, Eindhoven, Netherlands, H. van der Meiden, Lecture course on Thomson scattering and spectroscopy*
3. *ASML, 2016/10/17, Eindhoven, Netherlands, T.W. Morgan, Lecture course on Plasma Surface Interaction*
4. *TU/e Studium Generale, 2016/05/25, Eindhoven, Netherlands, T.W. Morgan, Putting the sun in a box*

Positions: 27

1. *M.R. de Baar, A.J.H. Donné, Organizer Lorentz Workshop Taming the Flame - Divertor Detachment Control in Tokamaks, 2016*
2. *M.R. de Baar, A.J.H. Donné, Member of the EUROfusion General Assembly, 2016*
3. *M.R. de Baar, Professor at Eindhoven University of Technology (since 2012), 2016*
4. *M.R. de Baar, Leader ITER-NL work package 2: ITER Upper port Electron Cyclotron Current Drive launcher (since 2007), 2016*
5. *M.R. de Baar, Member Executive Board of ITER-NL consortium (since 2014), 2016*
6. *M.R. de Baar, Member of the Programme Council of Fontys Centre of Excellence (CoE), 2016*
7. *M.R. de Baar, Member of the Fontys Advisory Board Mechanical Engineering, 2016*
8. *M.R. de Baar, Chair of the Vidi Committee of NWO Gebied Natuurkunde, 2016*
9. *M.R. de Baar, Member of the EUROfusion Plasma Exhaust Advisory Committee, 2016*
10. *M.R. de Baar, Member of the ECRH Steering Committee, 2016*
11. *M.R. de Baar, Member of the CXRS Steering Committee, 2016*
12. *P. Diomede, Member Programme Committee Physics@FOM Veldhoven 2017, Netherlands, 2016*
13. *A.J.H. Donné, Member of the International Scientific Advisory Board (Fachbeirat) of the Max-Planck-Institut for Plasma Physics (since 2014), 2016*
14. *A.J.H. Donné, Member of the International Advisory Committee of the 2016 International Conference on Plasma Physics (ICPP 2016), Kaohsiung, Taiwan (since 2015), 2016*
15. *A.J.H. Donné, Member of the Programme Committee of Laser-Aided Plasma Diagnostics Conference (since 1997), 2016*
16. *A.J.H. Donné, Member of the Wendelstein 7-X Programme Committee (since 2016), 2016*
17. *A.J.H. Donné, Member of the International Advisory Committee of EAST (Hefei, China) (since 2015), 2016*

18. *A.J.H. Donné, Member of the Editorial Board of Nuclear Fusion (since 2011), 2016*
19. *A.J.H. Donné, Chair of the Physics Advisory Panel of the Lorentz Centre (NL) (since 2013, Member since 2009), 2016*
20. *A.J.H. Donné, Member of Coordinating Committee of the International Tokamak Physics Activity (ITPA-CC) (since 2014), 2016*
21. *A.J.H. Donné, Appointed EUROfusion Consortium Programme Manager (since 2014), 2016*
22. *A.J.H. Donné, Member of the EIROforum Council (since 2014), 2016*
23. *G.M.D. Hogeweij, Member of the Organising Committee 2016 Eindhoven Fusion Day, 2016*
24. *G.M.D. Hogeweij, Member of the Organisational Committee of the Annual Dutch Symposium on Plasma Physics & Radiation Technology, Lunteren, 2016*
25. *E. Westerhof, Chairman of the NWO-SURFsara users committee, 2016*
26. *E. Westerhof, Chairman Programme Committee of the Joint Workshops on Electron Cyclotron Emission and Electron Cyclotron Resonance Heating (since 2015), 2016*
27. *E. Westerhof, sub-Chair for Magnetic Confinement Fusion in the Programme Committee of the 44th EPS Conference on Plasma Physics, 26-30 June 2017, Belfast, UK, 2016*

Media: 11

1. *DIFFER probeert vlam te temmen, ScienceGuide, 2016/12/14, interview with M.R. de Baar*
2. *DIFFER krijgt 2,3 miljoen om uitlaat voor kernfusiereactor ITER te ontwerpen, fluxenergie.nl, 2016/12/05, interview with M.R. de Baar*
3. *DIFFER wil uitlaat kernfusiereactor temmen, deingenieur.nl, 2016/12/04, interview with M.R. de Baar*
4. *Pulserende plasma's en atomaire biljartballen, NEMO Kennislink, 2016/09/16, interview with M.A. van den Berg*
5. *Woesjh doet het ziedend plasma, De Volkskrant, 2016/02/04, interview with A.J.H. Donné*
6. *Supermagneet voor testplasma, De Ingenieur, 2016/10/10, interview with H.J.N. van Eck*
7. *Metaaldamp beschermt uitlaat fusiereactor, Nederlands Tijdschrift voor Natuurkunde, 2016/10/01, interview with G.G. van Eden*
8. *Een zon op aarde, Scienceguide.nl, 2016/04/08, interview with G.G. van Eden, T.W. Morgan*
9. *Vloeibare metaallaag beschermt wand fusiereactor tegen enorme hitte, EngineersOnline, 2016/04/04, interview with G.G. van Eden, T.W. Morgan*
10. *Vloeibaar metaal bij kernfusie, Eindhovens Dagblad, 2016/04/05*
11. *An unreal reality pushes fusion, Fusion in Europe, 2016/12/12, interview with J.F. Koning*

Solar Fuels theme

PhD theses: 4

1. *A.D. van Dam, Nanowire photonics for photovoltaics, PhD thesis at the Eindhoven University of Technology, 2016/10/17, Promotor: J. Gomez Rivas, E.P.A.M. Bakkers*
2. *G. Georgiou, Photo-generated Terahertz devices, PhD thesis at the Eindhoven University of Technology, 2016/02/02, Promotor: J. Gomez Rivas, A. Fiore*
3. *N. den Harder, From temperature to reactivity : optical diagnosis of high-density plasmas, PhD thesis at the Eindhoven University of Technology, 2016/04/13, Promotor: M.C.M. van de Sanden, G.J. van Rooij*
4. *S. Ponduri, Understanding CO_2 containing non-equilibrium plasmas: modeling and experiments, PhD thesis at the Eindhoven University of Technology, 2016/01/25, Promotor: M.C.M. van de Sanden*

MSc theses: 3

1. *N. van Hoof, (Master thesis Eindhoven University of Technology:) Implications of nanostructuring on the efficiency of an InP solar cell, 2016, Mentor: J. Gomez Rivas*
2. *R. Kishore, (Master thesis) Density functional theory calculations of oxygen evolution reaction on WO_3 and B_iVO_4 surfaces, 2016, Mentor: X.Q. Zhang*
3. *C. Mennes, (Master thesis Amsterdam University:) Spatially and Temporally Resolved Coupling of a Bright and Dark Mode in the Terahertz regime, 2016, Mentor: J. Gomez Rivas*

BSc theses: 5

1. *H. Dzafic, (HBO scriptie Fontys Hogeschool, Eindhoven:) Commissioning Gas Chromatography Diagnostics in the Init-SF Plasma Setup, 2016, Mentor: S. Welzel*
2. *L. de Groot, (HBO scriptie Saxion Hogeschool, Apeldoorn:) Mass Spectroscopy of Microwave-induced Methane Plasma discharges, 2016, Mentor: T. Minea*
3. *W. van der Meer, (Bachelor thesis Fontys Hogeschool:) Substrate Conformal Imprint Lithography of metallic nanoparticle arrays, 2016, Mentor: M. Ramezani*
4. *D. Nieuwenhuizen, (Bachelor thesis Eindhoven University of Technology:) A New Method to Simultaneously Measure the Angular and Spectral Emission of Nano-Imprinted Light Emitters, 2016, Mentor: J. Gomez Rivas*
5. *L. Verkoeijen, (HBO scriptie Fontys Hogeschool, Eindhoven:) Emission Spectroscopy of O, CO and CO_2 on CO_2 Containing Plasmas, 2016, Mentor: S. Welzel*

Book chapters: 1

1. *S.A. Starostin, H.W. de Vries, et al., Roll-to-roll Deposition of High Performance gas Diffusion Barriers on Polymers Using a New Atmospheric Plasma Technology Platform, Atmospheric Pressure Plasmas: Processes, Technology and Applications, Nova Publishers, 978-1-63485-180-0, 2016, 103-136*

Publications in peer-reviewed scientific journals: 40

1. *A. Bhattacharya, G. Georgiou, S. Sawallich, C. Matheisen, M. Nagel, J. Gomez Rivas, Large near-to-far field spectral shifts for terahertz resonances, Phys. Rev. B 93 (2016) 035438*
2. *A. Bhattacharya, J. Gomez Rivas, Full vectorial mapping of the complex electric near-fields of THz resonators, APL Photonics 1 (2016) 086103*
3. *D.K.G. de Boer, M.A. Verschuuren, K. Guo, A. Femius Koenderink, J. Gomez Rivas, S.R.K. Rodriguez, Directional sideward emission from luminescent plasmonic nanostructures, Opt. Express 24 (2016) A388-A396*
4. *B.J.M. Brenny, D.R. Abujetas, D. van Dam, J.A. Sanchez-Gil, J. Gomez Rivas, A. Polman, Directional Emission from Leaky and Guided Modes in GaAs Nanowires Measured by Cathodoluminescence, ACS Photonics 3 (2016) 677-684*
5. *D. van Dam, D.R. Abujetas, J.A. Sanchez-Gil, J.E.M. Haverkort, E.P.A.M. Bakkers, J. Gomez Rivas, Strong diameter-dependence of nanowire emission coupled to waveguide modes, Appl. Phys. Lett. 108 (2016) 121109*
6. *D. van Dam, N.J.J. van Hoof, Y. Cui, P.J. van Veldhoven, E.P.A.M. Bakkers, J. Gomez Rivas, J.E.M. Haverkort, High-Efficiency Nanowire Solar Cells with Omnidirectionally Enhanced Absorption Due to Self-Aligned Indium–Tin–Oxide Mie Scatterers, ACS Nano 10 (2016) 11414-11419*
7. *I. Dogan, M.C.M. van de Sanden, Gas-Phase Plasma Synthesis of Free-Standing Silicon Nanoparticles for Future Energy Applications, Plasma Process. Polym. 13 (2016) 19-53*
8. *I. Dogan, R. Gresback, T. Nozaki, M.C.M. van de Sanden, Analysis of temporal evolution of quantum dot surface chemistry by surface-enhanced Raman scattering, Sci. Rep. 6 (2016) 29508*
9. *C. Duan, R.E.M. Willems, J.J. van Franeker, B.J. Bruijnaers, M.M. Wienk, R.A.J. Janssen, Effect of side chain length on the charge transport, morphology, and photovoltaic performance of conjugated polymers in bulk heterojunction solar cells, J. Mater. Chem. A 4 (2016) 1855-1866*
10. *C. Duan, J.J. van Franeker, M.M. Wienk, R.A.J. Janssen, High open circuit voltage polymer solar cells enabled by employing thiazoles in semiconducting polymers, Polym. Chem. 7 (2016) 5730–5738*
11. *C. Duan, K. Gao, J.J. van Franeker, F. Liu, M.M. Wienk, R.A.J. Janssen, Toward practical useful polymers for highly efficient solar cells via a random copolymer approach, J. Am. Chem. Soc. 138 (2016) 10782-10785*
12. *S. Esiner, G.W.P. van Pruissen, M.M. Wienk, R.A.J. Janssen, Optimized light-driven electrochemical water splitting with tandem polymer solar cells, J. Mater. Chem. A 4 (2016) 5107-5114*
13. *S. Esiner, H. van Eersel, G.W.P. van Pruissen, M. Turbiez, M.M. Wienk, R.A.J. Janssen, Water Splitting with Series-Connected Polymer Solar Cells, ACS Appl. Mater. Interfaces 8 (2016) 26972-26981*
14. *N. den Harder, S. Brezinsek, T. Pütterich, N. Fedorczak, G.F. Matthews, A. Meigs, M.F. Stamp, M.C.M. van de Sanden, G.J. van Rooij, JET Contributors, ELM-resolved divertor erosion in the JET ITER-Like Wall, Nucl. Fusion 56 (2016) 026014*
15. *G.H.L. Heintges, J.J. van Franeker, M.M. Wienk, R.A.J. Janssen, The effect of branching in a semiconducting polymer on the efficiency of organic photovoltaic cells, Chem. Commun. 52 (2016) 92-95*
16. *K.H. Hendriks, A.S.G. Wijpkema, J.J. van Franeker, M.M. Wienk, R.A.J. Janssen, The dichotomous role of exciting the donor or the acceptor on charge generation in organic solar cells, J. Am. Chem. Soc. 138 (2016) 10026-10031*
17. *Q. Huang, Y. Lou, A.W. Kleyn, T. Zaharia, M.A. Gleeson, Collision-induced desorption of CO from Ru(0001) by hyperthermal argon and nitrogen, Surface Sci. 650 (2016) 230 - 236*
18. *N. Leick, J.W. Weber, A.J.M. Mackus, M.J. Weber, M.C.M. van de Sanden, W.M.M. Kessels, In situ spectroscopic ellipsometry during atomic layer deposition of Pt, Ru and Pd, J. Phys. D: Appl. Phys. 49 (2016) 115504*
19. *N. Leick, J.W. Weber, A.J.M. Mackus, M.J. Weber, M.C.M. van de Sanden, W.M.M. Kessels, Erratum: In situ spectroscopic ellipsometry during atomic layer deposition of Pt, Ru and Pd (2016 J. Phys. D: Appl. Phys . 49 115504), J. Phys. D: Appl. Phys. 49 (2016) 269601*
20. *W. Li, K.H. Hendriks, M.M. Wienk, R.A.J. Janssen, Diketopyrrolopyrrole Polymers for Organic Solar Cells, Acc. Chem. Res. 49 (2016) 78-85*
21. *G. Lozano, S.R.K. Rodriguez, M.A. Verschuuren, J. Gomez Rivas, Metallic nanostructures for efficient LED lighting, Light Sci. Appl. 5 (2016) e16080*
22. *X. Lu, X. Gao, X. Guo, P. La, Q. Dong, X.Q. Zhang, Molecular Dynamics Study of Superelastic Performance of a β-Si3N4 Nanohelical Coil, J. Phys. Chem. Lett. 7 (2016) 3766-3769*

23. *T.C. Narayan, A. Baldi, A. Leen Koh, R. Sinclair, J.A. Dionne, Reconstructing solute-induced phase transformations within individual nanocrystals, Nat. Mater. 15 (2016) 768–774*
24. *A. Nikitin, M. Ramezani, J. Gomez Rivas, Luminescent Metamaterials for Solid State Lighting, ECS J. Solid State Sci. Technol. 5 (2016) R3164-R3169*
25. *F.J.J. Peeters, R.F. Rumphorst, M.C.M. van de Sanden, Dielectric barrier discharges revisited: the case for mobile surface charge, Plasma Sources Sci. Technol. 25 (2016) 03LT03*
26. *C.D. Pintassilgo, S. Welzel, Time-dependent coupled kinetics and gas temperature in N_2-NO pulsed discharges, Eur. Phys. J. Appl. Phys. 76 (2016) 10801*
27. *G. Pirruccio, M. Ramezani, S.R.K. Rodriguez, J. Gomez Rivas, Coherent Control of the Optical Absorption in a Plasmonic Lattice Coupled to a Luminescent Layer, Phys. Rev. Lett. 116 (2016) 103002*
28. *S. Ponduri, M.M. Becker, S. Welzel, M.C.M. van de Sanden, D. Loffhagen, R. Engeln, Fluid modelling of CO_2 dissociation in a dielectric barrier discharge, J. Appl. Phys. 119 (2016) 093301*
29. *M. Ramezani, G. Lozano, M.A. Verschuuren, J. Gomez Rivas, Modified emission of extended light emitting layers by selective coupling to collective lattice resonances, Phys. Rev. B 94 (2016) 125406*
30. *F. Sandra, A. Ballestero, V.L. NGuyen, M.N. Tsampas, P. Vernoux, C. Balan, Y. Iwamoto, U.B. Demirci, P. Miele, S. Bernard, Silicon carbide-based membranes with high soot particle filtration efficiency, durability and catalytic activity for CO/HC oxidation and soot combustion, J. Membr. Sci. 501 (2016) 79–92*
31. *M.C. Schaafsma, A. Bhattacharya, J. Gomez Rivas, Diffraction Enhanced Transparency and Slow THz Light in Periodic Arrays of Detuned and Displaced Dipoles, ACS Photonics 3 (2016) 1596–1603*
32. *S.A. Starostin, W. Keuning, J. Schalken, M. Creatore, W.M.M. Kessels, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Synergy Between Plasma-Assisted ALD and Roll-to-Roll Atmospheric Pressure PE-CVD Processing of Moisture Barrier Films on Polymers, Plasma Process. Polym. 13 (2016) 311-315*
33. *T. Stoll, G. Zafeiropoulos, M.N. Tsampas, Solar fuel production in a novel polymeric electrolyte membrane photoelectrochemical (PEM-PEC) cell with a web of titania nanotube arrays as photoanode and gaseous reactants, Int. J. Hydrogen Energy 41 (2016) 17807-17817*
34. *H. Tan, A. Furlan, W. Li, K. Arapov, R. Santbergen, M.M. Wienk, M. Zeman, A.H.M. Smets, R.A.J. Janssen, Highly Efficient Hybrid Polymer and Amorphous Silicon Multijunction Solar Cells with Effective Optical Management, Adv. Mater. 28 (2016) 2170-2177*
35. *Q. Wang, J.J. van Franeker, B.J. Bruijnaers, M.M. Wienk, R.A.J. Janssen, Structure-property relationships for bis-diketopyrrolopyrrole molecules in organic photovoltaics, J. Mater. Chem. A 4 (2016) 10532–10541*
36. *B.L. Williams, M.V. Ponomarev, M.A. Verheijen, H.C.M. Knoops, A. Chandramohan, L. Duval, M.C.M. van de Sanden, M. Creatore, Expanding Thermal Plasma Deposition of Al-Doped ZnO: On the Effect of the Plasma Chemistry on Film Growth Mechanisms, Plasma Processes Polym. 13 (2016) 54-69*
37. *X.Q. Zhang, A. Bieberle, Modeling and Simulations in Photoelectrochemical Water Oxidation: From Single Level to Multiscale Modeling, ChemSusChem 9 (2016) 1223–1242*
38. *X.Q. Zhang, P. Klaver, R. van Santen, M.C.M. van de Sanden, A. Bieberle, Oxygen Evolution at Hematite Surfaces: The Impact of Structure and Oxygen Vacancies on Lowering the Overpotential, J. Phys. Chem. C 120 (2016) 18201-18208*
39. *X.Q. Zhang, C. Cao, A. Bieberle, Orientation Sensitivity of Oxygen Evolution Reaction on Hematite, J. Phys. Chem. C 120 (2016) 28694–28700*
40. *E. Zoethout, E. Louis, F. Bijkerk, In depth study of molybdenum silicon compound formation at buried interfaces, J. Appl. Phys. 120 (2016) 115303*

Publications in other journals and conference proceedings: 9

1. *A. Bhattacharya, A. Halpin, N. van Hoof, C. Mennes, J. Gomez Rivas, Vectorial mapping of resonant THz near-field, 2016 41st International Conference on Infrared, Millimeter, and Terahertz waves (IRMMW-THz) 775 (2016) 8722*
2. *A. Bogaerts, M.C.M. van de Sanden, Special Issue of Papers by Plenary and Topical Invited Lecturers at the 22nd International Symposium on Plasma Chemistry (ISPC 22), 5-10 July 2015, Antwerp, Belgium: Introduction, Plasma Chemistry and Plasma Processing 36 (2016) 1-2*

3. *C. Cochard, T. Spielmann, M.K. Matters-Kammerer, A.R. van Dommele, A. Halpin, J. Gomez Rivas, T. Granzow, Tunable polar dielectrics for applications at millimeter wavelengths, 2016 41st International Conference on Infrared, Millimeter, and Terahertz waves (IRMMW-THz) 775 (2016) 8783*
4. *A. Goede, M.C.M. van de Sanden, CO_2-Neutral Fuels, Europhysics News 47 (2016) 22–26*
5. *J. Gomez Rivas, The nanowire optical antenna: Controlled directional emission and absorption of light by semiconductor nanowires, IEEE Photonics Society Summer Topics Meeting on Nanowire Optoelectronics 754 (2016) 8545*
6. *A. Halpin, A. Bhattacharya, N. van Hoof, C. Mennes, J. Gomez Rivas, Near-field Visualization of EIT in Resonant Terahertz Structures, 2016 41st International Conference on Infrared, Millimeter, and Terahertz waves (IRMMW-THz) 775 (2016) 8872*
7. *M. Ramezani, G. Pirruccio, S.R.K. Rodriguez, J. Gomez Rivas, Coherent control of the optical absorption in a plasmonic lattice coupled to a luminescent layer, 2016 Conference on Lasers and Electro-Optics (CLEO) 778 (2016) 8290*
8. *G.J. van Rooij, D. van den Bekerom, N. den Harder, T. Minea, W. Bongers, M.C.M. van de Sanden, G. Berden, R. Engeln, CO_2 conversion by plasmolysis: A route to solar fuels, 43rd IEEE International Conference on Plasma Science (ICOPS) 2016 753 (2016) 3944*
9. *M.C. Schaafsma, G. Giorgiou, J. Gomez Rivas, Photo-generated THz resonances and surfaces waves, 2016 Conference on Lasers and Electro-Optics (CLEO) 778 (2016) 8839*

Invited lectures at conferences and meetings: 38

1. *MRS Fall Meeting 2016, 2016/11/27, Boston, MA, USA, A. Baldi, T. Narayan, F. Hayee, A. Leen Koh, R. Sinclair, J. Dionne, Reconstructing hydrogen-induced phase transitions in individual nanocrystals*
2. *E-MRS Fall Meeting 2016, 2016/09/19, Warsaw, Poland, A. Baldi, T. Narayan, A. Leen Koh, R. Sinclair, J. Dionne, Hydrogen-induced phase transformations in single nanocrystals, O.8.1*
3. *E-MRS Fall Meeting 2016, 2016/09/19, Warsaw, Poland, A. Bieberle, The Solid Liquid Interface in Photo-Electrochemistry: A Case Study of the Hematite (Fe2O3) Electrolyte Interface, L.1.3*
4. *SOFT 2016 29th Symposium on Fusion Technology, 2016/09/05, Prague, Czech Republic, S. Brezinsek, N. den Harder, JET Contributors, et al., Plasma operation with full W divertor - experiences from JET equipped with the ITER-Like Wall, I2.1*
5. *Deutsche Physikalische Gemeinschaft, Arbeitskreis Energie, 2016/10/20, Bad Honnef, Germany, A.P.H. Goede, CO_2 Neutral fuels*
6. *I-SUP 2016 International Conference on Sustainable Production, session Carbon Capture, Utilisation and Storage, 2016/10/16, Antwerp, Belgium, A.P.H. Goede, CO_2 Neutral fuels*
7. *Electrochemical Society (ECS) PRiME conference, 2016/10/02, Honolulu, HI, USA, J. Gomez Rivas, Luminescent Metamaterials for Solid State Lighting*
8. *NoTeDev workshop, 2016/09/21, Prague, Czech Republic, J. Gomez Rivas, Active THz plasmonics*
9. *E-MRS Fall Meeting 2016, 2016/09/19, Warsaw, Poland, J. Gomez Rivas, Semiconductor-based terahertz plasmonics, I.12.1*
10. *Meta'16 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, 2016/07/25, Malaga, Spain, J. Gomez Rivas, Active Semiconductor THz metasurfaces*
11. *IEEE Photonics Society Summer Topics Meeting on Nanowire Optoelectronics, 2016/07/11, Newport Beach, USA, J. Gomez Rivas, The nanowire optical antenna: Controlled directional emission and absorption of light by semiconductor nanowires*
12. *EMN meeting on Nanowires 2016, 2016/05/16, Amsterdam, Netherlands, J. Gomez Rivas, Semiconductor nanowire antennas: directional emitters and absorbers of polarized light, B27*
13. *CLEO 2016 Laser Science and Photonic Application, 2016/05/14, San Jose, CA, USA, J. Gomez Rivas, M.C. Schaafsma, G. Georgiou, Photo-generated THz Resonances and Surfaces Waves*
14. *Nanolight 2016, 2016/03/06, Benasque, Spain, J. Gomez Rivas, Coherent absorption and emission of quantum emitters weakly and strongly coupled to plasmonic systems*
15. *3rd International Congress, Next Generation Solar Energy Meets Nanotechnology, 2016/11/23, Erlangen, Germany, R.A.J. Janssen, Charge generation in organic solar cells: Morphology and photon energy loss*
16. *Seminar Tata Steel, 2016/11/17, IJmuiden, Netherlands, R.A.J. Janssen, Organic and hybrid thin film solar cells*
17. *OPV Workshop: A New Technology to Market, 2016/10/07, Barcelona, Spain, R.A.J. Janssen, Mujulima: Innovative Materials for Multiple Junction OPVs and for Improved Light Management*

18. *MCEC, Annual meeting, 2016/04/24, Veldhoven, Netherlands, R.A.J. Janssen, Organic solar (fuel) cells*
19. *New Trends in Solar Cells, 2016/04/19, Bratislava, Slovakia, R.A.J. Janssen, Recent advances in organic and hybrid multi-junction solar cells*
20. *International Symposium "Organic Electronics in the 21st Century, 2016/03/21, Linz, Austria, R.A.J. Janssen, Challenges for multijunction organic solar cells*
21. *Applied Physics Departmental Colloquium, TU/e Eindhoven, 2016/03/03, Eindhoven, Netherlands, R.A.J. Janssen, Organic solar (fuel) cells*
22. *Solardam I, Solar Energy Conversion, University of Amsterdam, 2016/02/10, Amsterdam, Netherlands, R.A.J. Janssen, Organic solar (fuel) cells*
23. *Workshop on Application of Advanced Plasma Technologies in CE Agriculture, 2016/12/31, Ljubljana, Slovenia, G.J. van Rooij, Non equilibrium plasma conversion for fuels*
24. *6th International Conference on Advanced Plasma Technologies (ICAPT-6) / Workshop on Industrial Application of Plasma Solutions, 2016/12/11, Siem Reap, Cambodia, G.J. van Rooij, Efficient CO_2 reduction in microwave plasma: a route to solar fuels*
25. *International Workshop on Plasmas for Energy and Environmental Applications IWPEEA 2016, 2016/08/21, Liverpool, UK, G.J. van Rooij, Efficient CO_2 reduction in microwave plasma via vibrational excitation*
26. *43rd IEEE International Conference on Plasma Science (ICOPS) 2016, 2016/06/19, Banff, Canada, G.J. van Rooij, CO_2 conversion by plasmolysis: a route to solar fuels*
27. *IST Distinguished Lecture Series, Instituto de Plasmas e Fusao Nuclear IPFN, 2016/12/09, Lisbon, Portugal, M.C.M. van de Sanden, Plasma non-equilibrium at work: key to success of energy technologies?*
28. *Department of Chemical and Biochemical Engineering, UC Berkeley, 2016/08/26, Berkeley, USA, M.C.M. van de Sanden, DIFFER: a brief overview with emphasis on plasma activation of CO_2*
29. *NSF Workshop on Science Challenges in Low Temperature Plasma Science and Engineering: Enabling a Future Based on Electricity through Non-Equilibrium Plasma Chemistry, 2016/08/22, Arlington, VA, US, M.C.M. van de Sanden, Overview of research challenges: plasma science uniqueness and future outlook?*
30. *Colloquium at the Department of Physics, Bochum University, 2016/07/04, Bochum, Germany, M.C.M. van de Sanden, Plasma non-equilibrium at work: key to success of energy technologies?*
31. *7th International Workshop on Plasma Spectroscopy (IPS 2016), 2016/06/26, Inuyama, Japan, M.C.M. van de Sanden, Atomic and molecular processes in recombining hydrogen plasmas in the detachment region of fusion plasmas, I-03*
32. *Colloquia University of Trento, Dep. Physics and Dep. Civil, Environmental and Mechanical Engineering, 2016/03/30, Trento, Italy, M.C.M. van de Sanden, Plasma non-equilibrium at work: key to success of energy technologies?*
33. *Tokyo University / Dutch mission to Japan, 2016/03/18, Tokyo, Japan, M.C.M. van de Sanden, Energy storage and conversion research at DIFFER*
34. *Gordon research conference (GRC) Renewable Energy: Solar Fuels, 2016/02/28, Lucca (Barga), Italy, M.C.M. van de Sanden, Non-Equilibrium Plasma Chemistry as a Possible Route Towards CO_2-Neutral Fuels*
35. *IPP Garching, 2016/02/19, Garching, Germany, M.C.M. van de Sanden, The new mission of the DIFFER Institute*
36. *11th International Conference on Coatings on Glass and Plastics (ICCG11), 2016/06/12, Braunschweig, Germany, H.W. de Vries, Roll-to-roll Atmospheric Pressure Plasma Processing of SiO_2 Moisture Barrier Films, Session 3, Tuesday, June 14*
37. *Colloquium at IPP Greifswald, 2016/01/14, Greifswald, Germany, H.W. de Vries, Fundamental Challenges in Atmospheric Pressure Plasma Processing of Functional Films for Industrial Application*
38. *University College Cork, 2016/02/22, Cork, Ireland, A. Walsh, R. van Lent, M.A. Gleeson, L.B.F. Juurlink, Surface reactivity of activated CO_2: a doorway to efficient energy storage?*

Other oral and poster presentations at (international) conferences and meetings: 87

1. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, A. Baldi, T. Narayan, A. Leen Koh, R. Sinclair, J.A. Dionne, In-situ TEM study of phase transitions in individual palladium hydride nanocrystals, Poster, P3.009*

2. *19th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-19), 2016/12/01, Kerkrade, The Netherlands, D.C.M. van den Bekerom, G. Berden, R.A.H. Engeln, J.M. Palomares-Linares, T. Minea, N. Gatti, F.J.J. Peeters, S. Ponduri, M.C.M. van de Sanden, G.J. van Rooij, Obtaining vibrational temperatures from the pure rotational Raman spectrum in a CO_2 plasma, Oral, O3*
3. *GEC Workshop "Electrification of the chemical industry", 2016/10/10, Bochum, Germany, D.C.M. van den Bekerom, T. Minea, N. Gatti, F. Peeters, E. Zoethout, T. Verreycken, W.A. Bongers, M.C.M. van de Sanden, G.J. van Rooij, Understanding the vibrational distribution in CO_2 microwave plasma for production of carbon neutral fuels, using time resolved in-situ spectroscopy, Poster, workshop 4.*
4. *Plasma Processing Science (GRS Seminar) New Challenges of Plasma Science and Cutting Edge Plasma Applications, 2016/07/23, Andover, NH, USA, D.C.M. van den Bekerom, G. Berden, R.A.H. Engeln, J.M. Palomares-Linares, T. Minea, N. Gatti, F.J.J. Peeters, S. Ponduri, M.C.M. van de Sanden, G.J. van Rooij, Via Vibrational Excitation in a Microwave CO_2 Plasma to Efficient Synthetic Fuel Production, Oral*
5. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, 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, M.A. Damen, N. den Harder et al., In-situ time resolved IR absorption spectroscopy for assessing CO-production in a pulsed microwave plasma, Poster, B14*
6. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, D. van den Bekerom, J.M. Palomares-Linares, G. Berden, W.A. Bongers, R.A.H. Engeln, N. den Harder, T. Minea, S. Nijdam, F. Peeters, S. Ponduri et al., Assessing CO-production in a pulsed CO_2 microwave plasma using in situ time resolved IR-absorption spectroscopy, Oral, PW6.6*
7. *32th European Conference On Surface Science (ECOSS 32), 2016/08/28, Grenoble, France, T. Belete, M.A. Gleeson, M.C.M. van de Sanden, The Surface Science of Calcium Carbonate, Poster, P4-ADS_312*
8. *SCOT final conference Carbon Dioxide Utilisation: Catalyst for a European Industrial Renaissance, 2016/06/29, Brussels, Belgium, T. Belete, M.A. Gleeson, M.C.M. van de Sanden, Direct Production of Fuels From Captured CO_2, Poster*
9. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, T. Belete, M.C.M. van de Sanden, M.A. Gleeson, Preparation of Calcium Layers in UHV Chamber for Plasma assisted CO_2 conversion, Poster, A3*
10. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, T.T. Belete, M.A. Gleeson, M.C.M. van de Sanden, Plasma dissociation of water for CO_2 conversion, Poster, P5.005*
11. *2016 41st International Conference on Infrared, Millimeter, and Terahertz waves (IRMMW-THz), 2016/09/25, Copenhagen, Denmark, A. Bhattacharya, A. Halpin, N. van Hoof, C. Mennes, J. Gomez Rivas, Vectorial mapping of resonant THz near-field, Oral*
12. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, A. Bhattacharya, G. Georgiou, C. Mennes, A. Halpin, J. Gomez Rivas, Polarization resolved THz near-field enhancement in metal and semiconductor resonators, Oral, PW7.3*
13. *Mini-symposium on nanoporosity: Looking down the rabbit hole, 2016/11/15, Eindhoven, The Netherlands, A. Bieberle, R. Sinha, I. Tanyeli, R. Lavrijsen, V. di Palma, M. Creatore, M.C.M. van de Sanden, The impact of nanostructured interfaces on the performance of hematite photoelectrodes, Oral*
14. *65th annual meeting of the International Society of Electrochemistry 2016, 2016/08/21, The Hague, Netherlands, A. Bieberle, R. Sinha, I. Tanyeli, R. Lavrijsen, M.C.M. van de Sanden, Plasma Nanostructuring: The way towards high performing photoelectrodes?, Poster, s02-061*
15. *Gordon research conference (GRC) Renewable Energy: Solar Fuels, 2016/02/28, Lucca (Barga), Italy, A. Bieberle, R. Sinha, R. Lavrijsen, I. Tanyeli, M.C.M. van de Sanden, The Effect of the Micro-/Nanostructure on the Photo-electrochemical Properties of Hematite Thin Films, Poster*
16. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, B. Brenny, P. Heringlake, C. Osorio, D. van Dam, D.R. Abujetas, J.A. Sanchez-Gil, J. Gomez Rivas, A. Polman, Cathodoluminescence polarimetry elucidates the modal behaviour of semiconducting nanowires and Mie resonators, Poster, P1.055*
17. *Nanolight 2016, 2016/03/06, Benasque, Spain, D. van Dam, D.R. Abujetas, J.A. Sanchez-Gil, J.E.M. Haverkort, E.P.A.M. Bakkers, J. Gomez Rivas, Strong diameter-dependence of nanowire emission coupled to waveguide modes, Poster*
18. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, I. Dogan, S.P. Bosman, C.A.A. Swaans, S. Chen, M.C.M. van de Sanden, Optimization of silicon nanoparticle size distribution during plasma synthesis for energy storage applications, Poster, P3.106*
19. *Mini-symposium on nanoporosity: Looking down the rabbit hole, 2016/11/15, Eindhoven, The Netherlands, F. Elam, Atmospheric pressure plasma enhanced CVD of high quality silica-like bilayer encapsulation films, Oral*
20. *AVS 63rd Annual International Symposium and Exhibition, 2016/11/06, Nashville, TN, USA, F. Elam, A. Meshkova, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Atmospheric Pressure Plasma Enhanced CVD of High Quality Silica-Like Bilayer Encapsulation Films, Oral, SE+MS+TF-TuA8*

21. *PSE 2016 15th International Conference on Plasma Surface Engineering, 2016/09/12, Garmisch Partenkirchen, Germany, F.M. Elam, S.A. Starostin, A.S. Meshkova, B.C.A.M. van der Velden, J.B. Bouwstra, M.C.M. van de Sanden, H. de Vries, Atmospheric pressure plasma enhanced CVD of high quality silica-like bilayer encapsulation films, Poster*
22. *Plasma Processing Science (GRS Seminar) New Challenges of Plasma Science and Cutting Edge Plasma Applications, 2016/07/23, Andover, NH, USA, F. Elam, A. Meshkova, S.A. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Atmospheric Pressure Plasma Enhanced CVD of High Quality Silica-Like Bilayer Encapsulation Films, Oral*
23. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, F. Elam, S.A. Starostin, A. Meshkova, B.C.A.M. van der Velden, J.B. Bouwstra, M.C.M. van de Sanden, H.W. de Vries, Atmospheric pressure plasma enhanced CVD of high quality silica-like bilayer moisture barriers, Oral, O10*
24. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, F.M. Elam, S. Starostin, J.B. Bouwstra, M.C.M. van de Sanden, H. de Vries, Atmospheric pressure roll-to-roll plasma enhanced CVD of silica-like moisture barrier films: the nature and impact of film defects, Poster, P3.025*
25. *Computational Center for Energy Research Meeting, 2016/11/07, Eindhoven, Netherlands, S. Er, Accelerating the materials discovery for energy conversion and energy storage, Oral*
26. *CSER conference Computational Sciences for Future Energy 2016, 2016/10/11, Utrecht, Netherlands, S. Er, Accelerating the materials discovery for solar fuels production, Oral*
27. *19th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-19), 2016/12/01, Kerkrade, The Netherlands, N. Gatti, D.C.M. van den Bekerom, F. Peeters, S. Ponduri, T. Minea, G.J. van Rooij, Electron and neutral temperature measurements in CO_2 and N_2/O_2 microwave plasmas by Thomson and Raman scattering, Poster, P5*
28. *CSER conference Computational Sciences for Future Energy 2016, 2016/10/11, Utrecht, Netherlands, K. George, X.Q. Zhang, A. Bieberle, Modeling of Oxygen Evolution in Solar Water Splitting by Density Function Theory based State-Space Modeling, Poster*
29. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, P.W.C. Groen, W.A. Bongers, N. den Harder, T. Verreycken, B. Wolf, M.C.M. van de Sanden, Modelling of the (reduced) electric field in the DIFFER plasma reactor using impedance matching, Poster, A9*
30. *2016 41st International Conference on Infrared, Millimeter, and Terahertz waves (IRMMW-THz), 2016/09/25, Copenhagen, Denmark, A. Halpin, A. Bhattacharya, N. van Hoof, C. Mennes, J. Gomez Rivas, Near-field Visualization of EIT in Resonant Terahertz Structures, Oral*
31. *7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications ICOOPMA 2016, 2016/06/12, Montreal, Canada, A. Halpin, A. Bhattacharya, C. Mennes, J. Gomez Rivas, Visualization of bright and dark modes hybridized through near-field coupling in a periodic array of dolmens, Poster, Po-We-03*
32. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, A. Halpin, M. Ramezani, J. Gomez Rivas, Nonlinear emission of plasmon-exciton-polaritons, Poster, P2.033*
33. *Eindhoven Fusion Day 2016, 2016/01/13, Eindhoven, Netherlands, N. den Harder, S. Brezinsek, T. Pütterich, N. Fedorczak, G.F. Matthews, A.G. Meigs, M.F. Stamp, G.J. van Rooij, JET Contributors, ELM-resolved divertor erosion in the JET ITER-Like Wall, Oral*
34. *AVS 63rd Annual International Symposium and Exhibition, 2016/11/06, Nashville, TN, USA, L.B.F. Juurlink, R. van Lent, Curved Single Crystals As Tools to Study Structure Dependences in Surface Science and Gas-Surface Reactions Dynamics, Oral, HC+SS-ThM12*
35. *Reedijk symposium, 2016/10/28, Leiden, Netherlands, L.B.F. Juurlink, R. van Lent, The role of defects in reactive scattering of hydrogen from Pt, Poster*
36. *3rd International Conference on Scattering of Atoms and Molecules from Surfaces SAMS-3, 2016/08/23, Bergen, Norway, L.B.F. Juurlink, R. van Lent, The role of defects in reactive scattering of hydrogen from Pt, Poster*
37. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, R. Kamarudheen, A. Baldi, Plasmon-driven synthesis and assembly of hierarchical nanostructures, Poster*
38. *8th edition: Sunday, 2016/11/23, Veldhoven, Netherlands, R. Kishore, X.Q. Zhang, A. Bieberle, Modeling the Oxygen Evolution Reaction at Tungsten Oxide Surfaces, Poster*
39. *Werkconferentie Topsector Energie "De Energie van Morgen", 2016/09/29, Amersfoort, Netherlands, E. Langereis, R. van den Brink, Route Energietransitie moet multidisciplinair, Oral, 13.*
40. *17th Netherlands' Catalysis and Chemistry Conference (NCCC), 2016/03/06, Noordwijkerhout, Netherlands, R. van Lent, A.J. Walsh, C. Badan, M.A. Gleeson, L.B.F. Juurlink, Nanoscale control over reactions of O_2 on Pt, Poster*

41. *19th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-19), 2016/12/01, Kerkrade, The Netherlands, Y. Liu, S.A. Starostin, S. Welzel, M.C.M. van de Sanden, H.W. de Vries, Atmospheric-pressure dual frequency diffuse dielectric barrier discharge for thin film deposition, Poster, P13*
42. *GEC Workshop "Pulsed high power plasmas for the synthesis of nanostructured thin films", 2016/10/10, Bochum, Germany, Y. Liu, Dual frequency diffuse dielectric barrier discharge in atmospheric-pressure air-like gas mixture for thin film deposition, Poster, workshop 3.*
43. *PSE 2016 15th International Conference on Plasma Surface Engineering, 2016/09/12, Garmisch Partenkirchen, Germany, Y. Liu, Infrared Gas Phase Studies on Plasma-polymer Interactions in High-current Dielectric Barrier Discharges, Poster*
44. *AVS 63rd Annual International Symposium and Exhibition, 2016/11/06, Nashville, TN, USA, A. Meshkova, H.W. de Vries, F. Elam, S.A. Starostin, M.C.M. van de Sanden, Non Uniform Deposition Rate Profile during the Growth of SiO_2 Films Deposited by Atmospheric Pressure PECVD, Oral, TF-FrM10*
45. *PSE 2016 15th International Conference on Plasma Surface Engineering, 2016/09/12, Garmisch Partenkirchen, Germany, A.S. Meshkova, Non uniform deposition rate profile during the growth of SiO_2 films deposited by Atmospheric Pressure PECVD, Poster*
46. *PSE 2016 15th International Conference on Plasma Surface Engineering, 2016/09/12, Garmisch Partenkirchen, Germany, A.S. Meshkova, Growth Mechanism of Silica Dioxide Films Deposited by Atmospheric Pressure PECVD, Oral*
47. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, A. Meshkova, S.A. Starostin, M.C.M. van de Sanden, H.W. de Vries, Growth mechanism of films deposited by Atmospheric Pressure Plasma Enhanced Chemical Vapour Deposition (AP-PECVD), Poster, A18*
48. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, A. Meshkova, H.W. de Vries, Surface roughness evolution of SiO_2 films grown on polymeric substrate, Poster, P5.041*
49. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, T. Minea, M. Taheraslani, F.J.J. Peeters, D.C.M. van den Bekerom, J.M. Palomares-Linares, S. Ponduri, E. Zoethout, M.F. Graswinckel, W.A. Bongers, M.C.M. van de Sanden et al., A paradigm shift: non-oxidative coupling of methane via plasma catalysis with gain over selectivity control, Poster, A20*
50. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, T. Minea, M. Taheraslani, F.J.J. Peeters, D.C.M. van den Bekerom, N. den Harder, J.M. Palomares-Linares, S. Ponduri, M.F. Graswinckel, W.A. Bongers, E. Zoethout et al., A paradigm shift: non-oxidative coupling of methane via plasma catalysis with gain over selectivity control, Poster, P8.011*
51. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, M. Parente, A. Baldi, Photochemistry of metal@semiconductor core@shell nanostructures, Poster and Oral Pitch*
52. *2016 MRS Fall Meeting (Materials Research Society), 2016/11/30, Boston, USA, G. Pirruccio, M. Ramezani, S.R.K. Rodriguez, J. Gomez Rivas, Coherent Control of the Optical Absorption and Fluorescence Enhancement in a Plasmonic Lattice Coupled to a Luminescent Layer, Oral*
53. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, S. Ponduri, E. Zoethout, T. Minea, D. van den Bekerom, F. Peeters, N. den Harder, J.M. Palomares-Linares, M.C.M. van de Sanden, G.J. van Rooij, Nitrogen fixation in microwave plasmas, Poster, P8.012*
54. *1st International Workshop on Strong Coupling with Organic Molecules (SCOM-16), 2016/10/19, San Sebastian, Spain, M. Ramezani, A. Halpin, A.I. Fernandez, J. Feist, S.R.K. Rodriguez, F.J. Garcia-Vidal, J. Gomez Rivas, Plasmon-exciton-polariton lasing, Oral*
55. *40th annual conference of the NNV Division of Atomic, Molecular, and Optical Physics (AMO) 2016, 2016/10/11, Veldhoven, Netherlands, M. Ramezani, A. Halpin, A.I. Fernandez, J. Feist, S.R.K. Rodriguez, F.J. Garcia-Vidal, J. Gomez Rivas, Plasmon-exciton-polariton lasing, Oral, O12*
56. *Nanolight 2016, 2016/03/06, Benasque, Spain, M. Ramezani, A. Halpin, J. Feist, A. Fernandez, F.J. Garcia-Vidal, J. Gomez Rivas, Stimulated Scattering of Plasmon-Exciton-Polaritons, Poster*
57. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, M. Ramezani, D. van Dam, J.E.M. Haverkort, E.P.A.M. Bakkers, J. Gomez Rivas, Directional emission from nanowires and hybrid nanowire-metal antennas, Poster, P1.040*
58. *GEC Workshop "Electrification of the chemical industry", 2016/10/10, Bochum, Germany, G.J. van Rooij, Plasma as power transfer medium, Oral, workshop 4. session I.*
59. *14th International Conference on Carbon Dioxide Utilization 2016, 2016/09/11, Sheffield, UK, G.J. van Rooij, Understanding dynamics of a pulsed microwave plasma for efficient CO_2 dissociation, Oral*

60. *18th International Congress on Plasma Physics ICPP 2016, 2016/06/27, Kaohsiung, Taiwan, G.J. van Rooij, N. den Harder, D.C.M. van den Bekerom, J.M. Palomares-Linares, M.C.M. van de Sanden, CO_2 reduction in MW plasma: a thermal equilibrium study, Oral, B3A1-4*
61. *GEC Workshop "Electrification of the chemical industry", 2016/10/10, Bochum, Germany, M.C.M. van de Sanden, Electrification of the chemical industry, Oral, workshop 4.*
62. *Werkconferentie Topsector Energie "De Energie van Morgen", 2016/09/29, Amersfoort, Netherlands, M.C.M. van de Sanden, Electrifying the (chemical) industry, Oral, 12. Op weg naar elektrificatie van de industrie*
63. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, R. Sinha, I. Tanyeli, R. Lavrijsen, M.C.M. van de Sanden, A. Bieberle, The Electrochemistry of High Ion Flux He Plasma Exposed Hematite Thin Films, Poster*
64. *Gordon research conference (GRC) Renewable Energy: Solar Fuels, 2016/02/28, Lucca (Barga), Italy, R. Sinha, M.C.M. van de Sanden, A. Bieberle, Electrochemical Impedance Spectroscopy Study of Hematite Thin Films Prepared by DC and Reactive RF Sputtering, Poster*
65. *Physics@FOM Veldhoven 2016, 2016/01/19, Veldhoven, Netherlands, R. Sinha, R. Lavrijsen, M.C.M. van de Sanden, A. Bieberle, Investigation of the photoelectrochemical water splitting properties of hematite thin films fabricated by DC and reactive RF sputtering, Poster, P3.047*
66. *Society of Vacuum Coaters SVC 59th Annual Technical Conference (TechCon), 2016/05/09, Indianapolis, USA, S.A. Starostin, F.M. Elam, A. Meshkova, M.C.M. van de Sanden, J.B. Bouwstra, H.W. de Vries, Throughput Scaling of the Atmospheric Pressure PECVD Process for Gas Diffusion Barrier Films, Poster, P-8*
67. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, T. Stoll, G. Zafeiropoulos, M.N. Tsampas, Towards visible light activated porous photoanodes in conjunction with polymeric electrolyte PEC cell with gaseous reactants, Poster*
68. *65th annual meeting of the International Society of Electrochemistry 2016, 2016/08/21, The Hague, Netherlands, T. Stoll, G. Zafeiropoulos, M.N. Tsampas, Towards visible light activated porous photoanodes in conjunction with polymeric electrolyte PEC cell with gaseous reactants, Poster, s18-040*
69. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, S. Tadayon Mousavi, P.W.C. Groen, P.M.J. Koelman, J. van Dijk, Plasimo's Flow Solver Behavior and its Improvement in Compressible Regime, Poster, B9*
70. *11th European Space Power Conference, 2016/09/25, Thessaloniki, Greece, M.N. Tsampas, T. Stoll, G. Zafeiropoulos, Polymeric electrolyte membrane PEM-PEC cell with a web of titania nanotube arrays as photoanode and gaseous reactants, Oral*
71. *19th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-19), 2016/12/01, Kerkrade, The Netherlands, T. Verreycken, W.A. Bongers, Time resolved optical emission spectroscopic investigation of a pulsed CO_2 microwave discharge, Poster, P14*
72. *15th International Symposium on High Pressure Low Temperature Plasma Chemistry (HAKONE XV), 2016/09/11, Brno, Czech Republic, T. Verreycken, P.M.J. Koelman, D.C.M. van den Bekerom, J.M. Palomares-Linares, S. Ponduri, J. van Dijk, G.J. van Rooij, M.C.M. van de Sanden, W.A. Bongers, Investigation of the effect of on- and off-time on the dissociation of CO_2 in a pulsed microwave discharge, Oral*
73. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, T. Verreycken, D.C.M. van den Bekerom, J.M. Palomares-Linares, S. Ponduri, P.M.J. Koelman, J. van Dijk, G.J. van Rooij, W.A. Bongers, Pulsed microwave plasmas for control of CO_2 dissociation, Oral, O12*
74. *Future in Plasma Science, 2016/02/12, Greifswald, Germany, T. Verreycken, S. Welzel, W.A. Bongers, M.C.M. van de Sanden, Power modulation for control of CO_2 microwave plasmas, Poster*
75. *AVS 63rd Annual International Symposium and Exhibition, 2016/11/06, Nashville, TN, USA, H.W. de Vries, S.A. Starostin, W. van Baak, M.C.M. van de Sanden, Plasma Polymerised 4-vinyl Pyridine Films with High Charge Density Synthesised in Atmospheric Roll-to-Roll System, Oral, PS+SE-MoM10*
76. *Society of Vacuum Coaters SVC 59th Annual Technical Conference (TechCon), 2016/05/09, Indianapolis, USA, H.W. de Vries, S.A. Starostin, F.M. Elam, A. Meshkova, J.B. Bouwstra, M.C.M. van de Sanden, Super-linear Scaling in Moisture Barriers Synthesised in Roll-to-Roll High Current Dielectric Barrier Discharge, Oral, W-4*
77. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, S. Wang, W.A. Bongers, T. Minea, G. Frissen, S. Welzel, M.C.M. van de Sanden, Separation of oxygen from microwave CO_2 plasma, Poster, B19*
78. *19th Workshop on the Exploration of Low-Temperature Plasma Physics (WELTPP-19), 2016/12/01, Kerkrade, The Netherlands, A.J. Wolf, M.C.M. van de Sanden, W.A. Bongers, Effect of flow dynamics on CO_2 dissociation in a microwave plasma, Poster, P28*
79. *Plasma Processing Science (GRS Seminar) New Challenges of Plasma Science and Cutting Edge Plasma Applications, 2016/07/23, Andover, NH, USA, A.J. Wolf, F.J.J. Peeters, T. Verreycken, M.C.M. van de Sanden, W.A. Bongers, CO_2 microwave plasma dissociation: towards high energy efficiency, Poster*

80. *28th Symposium Plasma Physics and Radiation Technology, 2016/03/15, Lunteren, The Netherlands, A.J. Wolf, T.R. Sakpal, S. Tadayon Mousavi, L. Lefferts, J. van Dijk, W.A. Bongers, M.C.M. van de Sanden, Recycling CO_2 into sustainable hydrocarbon fuels: plasma catalytic conversion of CO_2 and H_2O into CH_4, Poster, B21*
81. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, G. Zafeiropoulos, T. Stoll, M.N. Tsampas, H_2 production in PEM-PEC cell with titania nanotube arrays as photoanodes and gaseous reactants, Poster*
82. *65th annual meeting of the International Society of Electrochemistry 2016, 2016/08/21, The Hague, Netherlands, G. Zafeiropoulos, T. Stoll, M.N. Tsampas, H_2 production in PEM-PEC cell with titania nanotube arrays as photoanodes and gaseous reactants, Poster, s18-041*
83. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, X.D. Zhang, M.C.M. van de Sanden, A. Bieberle, Water Oxidation at Hematite Surfaces: A Theoretical Study, Poster*
84. *CSER conference Computational Sciences for Future Energy 2016, 2016/10/11, Utrecht, Netherlands, X.Q. Zhang, T.P.C. Klaver, R. van Santen, M.C.M. van de Sanden, A. Bieberle, Simulation of the Oxygen Evolution Reaction at Hematite Surfaces, Poster and Oral Pitch*
85. *65th annual meeting of the International Society of Electrochemistry 2016, 2016/08/21, The Hague, Netherlands, X.Q. Zhang, P. Klaver, R. van Santen, M.C.M. van de Sanden, A. Bieberle, Simulation of the Oxygen Evolution Reaction at Hematite Surfaces, Poster, s17-014*
86. *Manfred Eigen Workshop Physical Chemistry of Solar Fuels Catalysis, 2016/04/06, Mühlheim, Germany, X.Q. Zhang, T.P.C. Klaver, R. van Santen, M.C.M. van de Sanden, A. Bieberle, Modeling the Oxygen Evolution Reaction at Hematite Surfaces, Poster*
87. *CHAINS: Chemistry matters for the future, 2016/12/05, Veldhoven, Netherlands, Y. Zhao, R. Sinha, M.C.M. van de Sanden, A. Bieberle, Structural and Photo-electrochemical Properties of WO3 Thin Films Fabricated in Diverse Partial Pressures of Oxygen, Poster and Oral Pitch*

Patents: 1

1. *J. Gomez Rivas, High resolution terahertz sensing, International Patent Number: EP16190229.1, 2016*

Lectures and courses: 1

1. *TU/e course Nanophotonics, 2016/03/29, Eindhoven, Netherlands, A. Baldi, Plasmonics for Chemistry*

Public events & industry contacts: 23

1. *PhD day 2016 "Unity in Diversity", 2016/09/16, Groningen, Netherlands, A. Baldi, Nanomaterials for Energy Applications*
2. *Team Energy TU/e, 2016/01/12, Eindhoven, Netherlands, A. Baldi, E. Langereis, Energy Cafe - Energy reality check*
3. *Bessensap - bekendmaking NWO-Spinozapremie, 2016/06/10, Amsterdam, Netherlands, D.C.M. van den Bekerom, CO_2 recyclen tot schoneenergiedrager*
4. *Alliander, Energy network company, 2016/09/08, Utrecht, Netherlands, W.A. Bongers, Plasma power to gas (P2G)*
5. *VSI/e event Green Power to Fuel, 2016/12/14, Eindhoven, Netherlands, M.A. Gleeson, Water splitting and reduction of carbon dioxide via Plasma Chemistry, a research challenge*
6. *Chengdu Plasma Chemistry Summer School (CPCSS), 2016/07/03, Shuangliu, Chengdu, China, M.A. Gleeson, Surface Science Investigations of Reactions at Surfaces*
7. *Chengdu Plasma Chemistry Summer School (CPCSS), 2016/07/03, Shuangliu, Chengdu, China, M.A. Gleeson, Fast abstraction of O from Ru*
8. *Koninklijk Genootschap PHYSICA, 2016/10/03, Alkmaar, Netherlands, R.A.J. Janssen, Moleculaire elektronica en zonnecellen van plastic*

9. *Tutorial Docentendag Natuurkunde, TU/e Eindhoven, 2016/03/31, Eindhoven, Netherlands, R.A.J. Janssen, Organische zonnecellen*
10. *Smart Materials, Meesterlijke Ontmoeting, Kasteel Maurick, 2016/02/18, Vught, Netherlands, R.A.J. Janssen, Plastic zonnecellen*
11. *Tutorial Docentendag Scheikundige Technologie, TU/e Eindhoven, 2016/01/27, Eindhoven, Netherlands, R.A.J. Janssen, Perovskiet zonnecellen, hype of revolutie?*
12. *ICMS Outreach Symposium, TU/e Eindhoven, 2016/01/22, Eindhoven, Netherlands, R.A.J. Janssen, Recent advances in organic and hybrid multi-junction solar cells*
13. *SCOT final conference Carbon Dioxide Utilisation: Catalyst for a European Industrial Renaissance, 2016/06/29, Brussels, Belgium, E. Langereis, How to overcome the main technical hurdles to make a success of CCU (as Panel Member)*
14. *Hannover Messe 2016, 2016/04/25, Hannover, Germany, E. Langereis, M.R. de Baar, H. van den Brand, Hannover Messe 2016 Exhibition stand NWO / FOM-Instituut DIFFER*
15. *Chengdu Plasma Chemistry Summer School (CPCSS), 2016/07/03, Shuangliu, Chengdu, China, G.J. van Rooij, Particle and power balance, charge and particle transport in plasma*
16. *Chengdu Plasma Chemistry Summer School (CPCSS), 2016/07/03, Shuangliu, Chengdu, China, G.J. van Rooij, Plasma in contact with a surface*
17. *VSI/e event Green Power to Fuel, 2016/12/14, Eindhoven, Netherlands, M.C.M. van de Sanden, Electrification of the (Chemical) Industry, an overview*
18. *14th Deloitte Global Chemicals Think Tank 2016, 2016/12/01, Sittard, Netherlands, M.C.M. van de Sanden, Electrification of the chemical industry*
19. *SIA-congres met als thema Durf te verbinden!, 2016/11/30, The Hague, Netherlands, M.C.M. van de Sanden, Presentation Fontys-DIFFER SIA L.INT lector Peter Thüne*
20. *Brabant Energy Diner, 2016/11/17, Moerdijk, Netherlands, M.C.M. van de Sanden, CO_2, zonne-energie en kunstmatige brandstoffen*
21. *Science and the energy challenge NWO conference "Science for Circular Economy", 2016/06/15, Eindhoven, Netherlands, M.C.M. van de Sanden, Introducing DIFFER: mission and research program*
22. *Nijenrode University, 2016/05/27, Breukelen, Netherlands, M.C.M. van de Sanden, Energie, kansen voor het bedrijfsleven?*
23. *PINNL event, 2016/05/18, Eindhoven, Netherlands, M.C.M. van de Sanden, Emerging conversion technologies for chemical industry*

Awards: 8

1. *D.C.M. van den Bekerom, Support award at Plasma Processing Science GRS Seminar New Challenges of Plasma Science and Cutting Edge Plasma Applications, Andover, NH, USA, July 2016, 2016*
2. *T. Belete, Winner Poster Prize SCOT final conference Carbon Dioxide Utilisation: Catalyst for a European Industrial Renaissance 2016, 2016*
3. *D. van Dam, Winner Young Speakers Contest at NNV's annual congress Fysica 2016, 2016*
4. *F. Elam, Winner best presentation at 28th Symposium Plasma Physics and Radiation Technology, Lunteren, The Netherlands, March 2016, 2016*
5. *F. Elam, Prize winning talk at Plasma Processing Science GRS Seminar New Challenges of Plasma Science and Cutting Edge Plasma Applications, Andover, NH, USA, July 2016, 2016*
6. *J. Gomez Rivas, Light: Science Applications excellent publication award for the review Metallic nanostructures for efficient LED lighting, 2016*
7. *J. Gomez Rivas, Facebook Academic Award, 2016*
8. *S.R.K. Rodriguez, Honorable mention for the 2016 Christiaan Huygens Prize in recognition of the doctoral thesis work in the Photonics for Energy group, 2016*

Positions: 42

1. *A. Baldi, Panelist at FOM Gender in Physics Day, 1 November, 2016, 2016*
2. *A.P.H. Goede, Member of the Editorial Board of Euro Physics News (since 2010), 2016*
3. *A.P.H. Goede, Fellow of European Physical Society (since 2011), 2016*
4. *A.P.H. Goede, Member of the Science Advisory Board of the German BMBF KOPERNIKUS 10 year Programme P2X (since 2016), 2016*
5. *J. Gomez Rivas, Organizer of the First International Workshop on Strong Coupling with Organic Molecules (SCOM-16), 2016*
6. *J. Gomez Rivas, Associate Editor of the Journal of Applied Physics (since 2015), 2016*
7. *J. Gomez Rivas, Management team member of the TU/e research school COBRA, 2016*
8. *E. Langereis, Leader table discussion on "Hoe creëer je met beleid een innovatieklimaat met lange termijn opbrengst gedurende de energietransitie?" as input for national energy dialogue by Ministry of Economic Affairs, 2016*
9. *E. Langereis, Member of NERA working group (Netherlands Energy Research Alliance), 2016*
10. *E. Langereis, Co-organizer TU/e Energy Days (since 2013), 2016*
11. *E. Langereis, G.J. van Rooij, Member of the Editorial Board of Nederlands Tijdschrift voor de Natuurkunde, 2016*
12. *E. Langereis, Secretary of the NERA Route Energy Transition to input the Dutch Science Policy (NWA), 2016*
13. *G.J. van Rooij, International Scientific Advisory Committee International Workshop on Plasmas for Energy and Environmental Applications IWPEEA (since 2016), 2016*
14. *G.J. van Rooij, International Scientific Advisory Committee International Summer School on Vacuum, Electron and Ion Technologies VEIT (since 2015), 2016*
15. *G.J. van Rooij, Member of the Organisational Committee of the Annual Dutch Symposium on Plasma Physics & Radiation Technology, Lunteren, 2016*
16. *G.J. van Rooij, Lecturer Course series Plasma Surface Interactions at Eindhoven University of Technology (since 2009), 2016*
17. *M.C.M. van de Sanden, Member Committee for Technology Position Audit for TNO Nanotechnology Cluster, 14-17 November, 2016, 2016*
18. *M.C.M. van de Sanden, Nederlandse Natuurkundige Vereniging (NNV) vertegenwoordigend lid in de EPS divisie Energie, 2016*
19. *M.C.M. van de Sanden, Member of the Euratom Programme Committee (Fusion) (since 2014), 2016*
20. *M.C.M. van de Sanden, KNAW committee member Large research infrastructure (since 2015), 2016*
21. *M.C.M. van de Sanden, International Advisory Board for the journal Plasma Processes and Polymers (since 2002), 2016*
22. *M.C.M. van de Sanden, S. Welzel, Consultants to PREMiERE Project - CO_2 Plasmas: a fRiEndly MEdium for Renewable Energy (since 2016), 2016*
23. *M.C.M. van de Sanden, Partime professorship in the Department of Applied Physics (since 2011 after fulltime since 2000), 2016*
24. *M.C.M. van de Sanden, Member of the Scientific Advisory Council (SAC) of the Helmholtz Zentrum Berlin für Materialen und Energie (since 2011), 2016*
25. *M.C.M. van de Sanden, Senior Advisory Board Member of Plasma Sources: Science and Technology (since 2005, Senior since 2014), 2016*
26. *M.C.M. van de Sanden, Delegation Leader Chemical conversion storage of Dutch Mission to Japan, 6-12 March, 2016, 2016*
27. *M.C.M. van de Sanden, KNAW committee member Evaluation elections new members (since 2014), 2016*
28. *M.C.M. van de Sanden, Member of the Editorial Board of the Journal "Applied Sciences" (since 2016), 2016*
29. *M.C.M. van de Sanden, Scientific Advisory Board member Nanolab@TU/e TU Eindhoven (since 2013), 2016*
30. *M.C.M. van de Sanden, International Advisory Board member for ISPCEM 2016 symposium, Tianjin, China (since 2015), 2016*
31. *M.C.M. van de Sanden, Member Scientific Committee of the CSER Conference Computational Sciences for Future Energy 2016, Utrecht, Netherlands, 2016*
32. *M.C.M. van de Sanden, Member of the Royal Netherlands Academy of Arts and Sciences (KNAW) (since 2013), 2016*
33. *M.C.M. van de Sanden, Member Advisory Committee of International Conference on Reactive Plasmas (ICRP) (since 2014), 2016*
34. *M.C.M. van de Sanden, KNAW committee member Jury new members Science Division (since 2014), 2016*
35. *M.C.M. van de Sanden, Member of the Organisational Committee of the GEC Workshop Electrification of the chemical industry, Bochum, Germany, 2016*
36. *M.C.M. van de Sanden, Board member TKI Gas, Groningen (since 2014), 2016*
37. *M.C.M. van de Sanden, Organizer AVS Conference - Program: Plasma Science and Technology division (since 2012), 2016*

38. *M.C.M. van de Sanden, Member Koninklijke Hollandsche Maatschappij der Wetenschappen (since 2010), 2016*
39. *M.C.M. van de Sanden, Member WEST Governance Board in France (since 2014), 2016*
40. *M.C.M. van de Sanden, Member Advisory Board SAIAMC South African Institute for Advanced Materials Chemistry (since 2015), 2016*
41. *M.C.M. van de Sanden, Member of the EASAC Energy Steering Panel (European Academies) (since 2014), 2016*
42. *S. Welzel, Member of the Organizing Committee of the Workshop on the Exploration of Low Temperature Plasma Physics, Kerkrade, Netherlands (since 2012), 2016*

Media: 9

1. *FOM, NWO en Shell sponsoren vier energieonderzoekers, Bits & Chips, 2016/03/07, general coverage*
2. *The Need for Basic Energy Research, Europhysics News, interview with A. Goede*
3. *Die Energiewende, Europhysics News, interview with A. Goede*
4. *Nanoantenne kan toch aan en uit, ScienceGuide.nl, 2016/03/11, interview with J. Gomez Rivas, M. Ramezani*
5. *Nanoversterkers van licht kunnen worden uitgezet, Bits & Chips, 2016/03/10, interview with J. Gomez Rivas, M. Ramezani*
6. *Interview met Erik Langereis, DIFFER, Ruimte voor energie Bouwsteen Energie in Regionale Ruimtelijke Strategie, 2016/12/01, interview with E. Langereis*
7. *1,6 miljoen euro voor schone energie, Eindhovens Dagblad, 2016/03/31, interview with M.C.M. van de Sanden*
8. *Nanolagen als vochtbarrière voor flexibele zonnecellen, Nederlands Tijdschrift voor Natuurkunde, 2016/05/01, interview with H.W. de Vries*
9. *Pulserende plasma's en atomaire biljartballen, NEMO Kennislink, 2016/09/16, interview with B. Wolf, T. Verreycken*