

Publikationsliste

Reinhart Job

125 Artikel in Konferenz-Proceedings	S. 3
99 Artikel in wissenschaftlichen Journalen	S. 21
43 eingeladene Vorträge/Seminare	S. 31
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125 Artikel in Konferenz-'Proceedings':

1. *"Development Process for MEMS Pressure Sensors for Standardized CMOS Read-Out Circuitry"*
W. Schreiber-Prillwitz, R. Job;
29th Symposium on Integrated Circuits and Systems Design (SBCCI), 29.8.-3.9.2016,
Belo Horizonte, Brazil, IEEE Conf. Publ., DOI: 10.1109/SBCCI.2016.7724037 (2016)
(Tutorial, eingeladen)
2. *"Metastable Defects in Proton Implanted and Annealed Silicon"*
M. Jelinek, J. G. Laven, N. Ganagona, R. Job, W. Schustereder, H.-J. Schulze,
M. Rommel, L. Frey;
Proceedings "GADEST 2015, 16th International Autumn Meeting", 20. – 25.9.2015, Bad
Staffelstein, Germany, Trans Tech Publications Ltd., Zürich, Switzerland (2016), p. 169
(siehe auch: Solid State Phenomena 242, 169 (2016))
3. *"Comparison of BO Regeneration dynamics in PERC and Al-BSF solar cells"*
A. Herguth, R. Horbelt, S. Wilking, R. Job, G. Hahn;
Proceedings "5th International Conference on Silicon Photovoltaics, SiliconPV 2015",
23.-25.3.2015, Konstanz, Germany, Editor: Giso Hahn, Elsevier (2015),
DOI: 10.1016/j.egypro.2015.07.012
(siehe auch: Energy Procedia 77, 75 (2015))
4. *"Morphology and Hydrogen in Passivating Amorphous Silicon Layers"*
S. Gerke, H.-W. Becker, D. Rogalla, G. Hahn, R. Job, B. Terheiden;
Proceedings "5th International Conference on Silicon Photovoltaics, SiliconPV 2015",
23.-25.3.2015, Konstanz, Germany, Editor: Giso Hahn, Elsevier (2015),
DOI: 10.1016/j.egypro.2015.07.112
(siehe auch: Energy Procedia 77, 791 (2015))
5. *"Deep-Level Defects in High-Dose Proton Implanted and High-Temperature Annealed Silicon"*
M. Jelinek, J. G. Laven, M. Rommel, W. Schustereder, H.-J. Schulze, L. Frey, R. Job;
in: "High Purity Silicon XIII", Editors: E. Simoen, C. Claeys, O. Kakatsuka, R. Falster,
C. Mazure, (the 226th Meeting of the Electrochemical Society, Oct. 5th – 10th, 2014,
Cancun, Mexico), ECS Transactions 64 (11), 173 (2014)
6. *"A New Method to Increase the Doping Efficiency of Proton Implantation in a High-Dose Regime"*
M. Jelinek, J. G. Laven, R. Job, W. Schustereder, H.-J. Schulze, M. Rommel, L. Frey;
in: "High Purity Silicon XIII", Editors: E. Simoen, C. Claeys, O. Kakatsuka, R. Falster,
C. Mazure (the 226th Meeting of the Electrochemical Society, Oct. 5th – 10th, 2014,
Cancun, Mexico), ECS Transactions 64 (11), 199 (2014)
7. *"Temperature Dependence of Void Formation in PERC Cells and their Spatially Resolved Detection by Combining Scanning Acoustic Microscopy and Electroluminescence Measurements"*
R. Horbelt, A. Herguth, G. Hahn, R. Job, B. Terheiden;
29th European Photovoltaic Solar Energy Conference and Exhibition (EU-PVSEC),
Sept. 22nd – 26th, 2014, Amsterdam, The Netherlands, p. 427 (2014)
DOI 10.4229/EUPVSEC20142014-2BO.2.5

8. *"Investigation of Hydrogen Dependent Long-Time Thermal Characteristics of PECV-Deposited Intrinsic Amorphous Layers of Different Morphologies"*
S. Gerke, H.-W. Becker, D. Rogalla, G. Hahn, R. Job, B. Terheiden;
29th European Photovoltaic Solar Energy Conference and Exhibition (EU-PVSEC),
Sept. 22nd – 26th, 2014, Amsterdam, The Netherlands, p. 9 (2014)
DOI 10.4229/EUPVSEC20142014-1AO.1.1
9. *"Evaluation of Capacitance-Voltage Spectroscopy by Correlation with Minority Carrier Lifetime Measurements of PECVD-Deposited Intrinsic Amorphous Layers"*
S. Gerke, A. Herguth, N. Brinkmann, G. Hahn, R. Job
"28th European Photovoltaic Solar Energy Conference and Exhibition (EU-PVSEC)",
Sept. 30th – 4th, 2013, Paris, France, p. 2600 (2013),
DOI 10.4229/28thEUPVSEC2013-3CV.1.61
10. *"Designing MEMS Pressure Sensors with Integrated Circuitry on Silicon for Miscellaneous Applications"*
W. Schreiber-Prillwitz, R. Job
Proceedings "2013 IEEE Fourth Latin American Symposium on Circuits and Systems (LASCAS)", Feb. 27th – Mar. 1st, 2013, Cusco, Peru, IEEE (2013),
DOI 10.1109/LASCAS.2013.6519006
11. *"The Thermal Budget of Hydrogen-related Donor Profiles: Diffusion-limited Activation and Thermal Dissociation"*
J. G. Laven, R. Job, H.-J. Schulze, F.-J. Niedernostheide, W. Schustereder, L. Frey;
in: "High Purity Silicon 12", Editors: E. Simoen, C. L. Claeys, P. Stallhofer, R. Falster,
C. Mazuré (the 222nd Meeting of the Electrochemical Society, Oct. 7th – 12th, 2012,
Honolulu, USA), ECS Transactions 50 (5), 161 (2012)
(eingeladen)
12. *"Investigation of Doping Type Conversion and Diffusion Length Extraction of Proton Implanted Silicon by EBIC"*
S. Kirnstötter, M. Faccinelli, P. Hadley, R. Job, W. Schustereder, J. G. Laven,
H.-J. Schulze;
in: "High Purity Silicon 12", Editors: E. Simoen, C. L. Claeys, P. Stallhofer, R. Falster,
C. Mazuré (the 222nd Meeting of the Electrochemical Society, Oct. 7th – 12th, 2012,
Honolulu, USA), ECS Transactions 50 (5), 115 (2012)
13. *"Improvement of Integrated Pressure Sensor Systems Fabricated by a Combined CMOS- and MEMS-Technology with regard to Low Pressure Ranges"*
W. Schreiber-Prillwitz, R. Job;
in: "Microelectronics Technology and Devices – SBMicro 2012", Editors:
G. Wirth, N. Morimoto, D. Vasileska (the 27th Symposium on Microelectronics
Technology and Devices, Aug. 30th – Sept. 2nd, 2012, Brasília, Brazil), ECS Transactions
49 (1), 417 (2012)
14. *"Imaging Superjunctions in CoolMOSTM Devices using Electron Beam Induced Current"*
S. Kirnstötter, M. Faccinelli, P. Hadley, R. Job, W. Schustereder, J. G. Laven, H.-J.
Schulze;
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G. Wirth, N. Morimoto, D. Vasileska, (the 27th Symposium on Microelectronics
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49 (1), 475 (2012)

15. *"Conversion Efficiency of Radiation Damage Profiles into Hydrogen-Related Donor Profiles"*
J. G. Laven, R. Job, W. Schustereder, H.-J. Schulze, F.-J. Niedernostheide, H. Schulze, L. Frey;
Proceedings "GADEST 2011, 14th International Autumn Meeting", 25. – 30.9.2011, Fürstenfeld, Austria, Trans Tech Publications Ltd., Zürich, Switzerland (2011), p. 375 (siehe auch: Diffusion and Defect Data Part B (Solid State Phenomena) 178-179, 375 (2011))
16. *"Technical and Commercial Aspects of Battery Systems for Electric Mobility"*
J. Jargstorf, R. Job;
Proceedings "3rd European Conference Smart Grids and E-Mobility 2011", 17. – 18.10.2011, München-Dornach, Ostbayerisches Technologie-Transfer-Institut (OTTI) e.V. (2011)
17. *"Development of a Robust Design for Wet Etched Cointegrated Pressure Sensor Systems"*
W. Schreiber-Prillwitz, M. Saukoski, G. Chmiel, R. Job;
in: "Microelectromechanical Systems – Materials and Devices IV", Editors: F. W. DelRio, C. Eberl, M. P. de Boer, E. P. Gusev, MRS Symposium Proceedings Series, Vol. 1299 (the 2010 MRS Fall Meeting, Boston, USA), 1299-S06-03, p. 129 (2011)
18. *"Design Approach and Realization of Integrated Silicon Piezoresistive Pressure Sensors for Wide Application Ranges"*
W. Schreiber-Prillwitz, M. Saukoski, G. Chmiel, R. Job;
in: "Chemical Sensors 9: Chemical and Biological Sensors and Analytical Systems – and – Microfabricated and Nanofabricated Systems for MEMS/NEMS 9", Editors: G. Hunter, P. J. Hesketh, Z. Aguilar, M. Carter, J. Li, A. Simonian, J. L. Davidson, A. Longdergan, S. Shoji, P. Srinivasan, K. B. Sundaram, P. Vanýsek (the 218th Meeting of the Electrochemical Society, Oct. 10th – 15th, 2010, Las Vegas, USA), ECS Transactions 33 (8), 327 (2010)
19. *"The Impact of Helium Co-Implantation on Hydrogen Induced Donor Profiles in Float Zone Silicon"*
J. G. Laven, R. Job, H.-J. Schulze, F.-J. Niedernostheide, V. Häublein, H. Schulze, W. Schustereder, H. Ryssel, L. Frey;
in: "High Purity Silicon XI", Editors: E. Simoen, C. L. Claeys, R. Falster, C. Mazure, P. Stallhofer (the 218th Meeting of the Electrochemical Society, Oct. 10th – 15th, 2010, Las Vegas, USA), ECS Transactions 33 (11), 51 (2010)
20. *"Distribution of Hydrogen- and Vacancy-Related Donor and Acceptor States in Helium Implanted and Plasma Hydrogenated Float Zone Silicon"*
R. Job, F.-J. Niedernostheide, H.-J. Schulze, H. Schulze;
in "Reliability and Materials Issues of Semiconductor Optical and Electrical Devices and Materials", Editors: O. Ueda, M. Fukuda, S. Pearton, E. Piner, P. Montanegro, MRS Symposium Proceedings Series, Vol. 1195 (the 2009 MRS Fall Meeting, Boston, USA), 1195-B11-02, p. 291 (2010)

21. *"Detection of Vacancy Distributions by Decoration with Hydrogen"*
R. Job, F.-J. Niedernostheide, H.-J. Schulze, H. Schulze;
in: "Analytical Techniques for Semiconductor Materials and Process Characterization VI (ALTEC)", Editors: B. O. Kolbesen, C. L. Claeys, C. Fabry, M. Bersani, D. Giubertoni, G. Pepponi (the 216th Meeting of the Electrochemical Society, Oct. 4th – 9th, 2009, Vienna, Austria), ECS Transactions 25 (3), 35 (2009)
(eingeladen)
22. *"Formation of Doping Profiles in Float Zone Silicon by Helium Implantation and Plasma Hydrogenation"*
R. Job, F.-J. Niedernostheide, H.-J. Schulze, H. Schulze;
in "Performance and Reliability of Semiconductor Devices", Editors: M. Mastro, J. LaRoche, F. Ren, J.-I. Chyi, J. Kim, MRS Symposium Proceedings Series, Vol. 1108 (the 2008 MRS Fall Meeting, Boston, USA), 1108-A12-03, p. 237 (2009)
23. *"Formation and Annihilation of Hydrogen Related Donor States in Proton Implanted and Subsequently Plasma Hydrogenated N-Type Float Zone Silicon"*
R. Job, F.-J. Niedernostheide, H.-J. Schulze, H. Schulze;
in: "High Purity Silicon X", Editors: C. L. Claeys, R. Falster, M. Watanabe, P. Stallhofer (the 214th Meeting of the Electrochemical Society, PRiME 2008, Oct. 12th – 17th, 2008, Honolulu, USA), ECS Transactions 16 (6), 151 (2008)
24. *"Formation of Hydrogen Related Defects and Nano-Voids in Plasma Hydrogenated ZnO"*
R. Job;
in: "Semiconductor Defect Engineering—Materials, Synthetic Structures and Devices II", Editors: S. Ashok, P. Kiesel, J. Chevallier, T. Ogino, MRS Symposium Proceedings Series, Vol. 994 (the 2007 MRS Spring Meeting, San Francisco, USA), 0994-F02-09, p.61 (2007)
25. *"Germanium Layer Exfoliation by Ion-Cut Processes"*
R. Job, W. Dungen;
in: "Semiconductor Defect Engineering—Materials, Synthetic Structures and Devices II", Editors: S. Ashok, P. Kiesel, J. Chevallier, T. Ogino, MRS Symposium Proceedings Series, Vol. 994 (the 2007 MRS Spring Meeting, San Francisco, USA), 0994-F09-05, p. 257 (2007)
26. *"Crystalline Silicon Surface Passivation by PECV-Deposited hydrogenated Amorphous Silicon Oxide Films [a-SiO_x:H]"*
T. Mueller, W. Duengen, R. Job, M. Scherff, W. R. Fahrner;
in: "Amorphous and Polycrystalline Thin-Film Silicon Science and Technology – 2007", Editors: V. Chu, S. Miyazaki, A. Nathan, J. Yang, H. W. Zan, MRS Symposium Proceedings Series, Vol. 989 (the 2007 MRS Spring Meeting, San Francisco, USA), 0989-A05-02 (2007)
27. *"The Impact of Hydrogen Plasma Treatments at Moderate Temperatures on Sintered Zinc Oxide Samples – Evidence for Hydrogen Induced Nano-Void Formation"*
R. Job
in: "Zinc Oxide and Related Materials", Editors: J. Christen, C. Jagadish, D. C. Look, T. Yao, MRS Symposium Proceedings Series, Vol. 957 (the 2006 MRS Fall Meeting, Boston, USA), 0957-K10-40, p. 391 (2007)

28. *"Hydrogen-related Donor Formation: Fabrication Techniques, Characterization, and Application to High-Voltage Superjunction Transistors"*
H.-J. Schulze, M. Buzzo, F.-J. Niedernostheide, M. Rüb, H. Schulze, R. Job;
in: "High Purity Silicon IX", Editors: C. L. Claeys, P. Stallhofer, R. Falster,
M. Watanabe (the 210th Meeting of the Electrochemical Society, Oct. 29th - 3rd, 2006,
Cancun, Mexico), ECS Transactions 3 (4), 135 (2006)
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29. *"Hydrogen Gettering and Platelet Formation in Implanted and Hydrogenated Silicon"*
W. Dungen, R. Job, Y. Ma, W. R. Fahrner, L. O. Keller, J. T. Horstmann, H. Fiedler;
in: "High Purity Silicon IX", Editors: C. L. Claeys, P. Stallhofer, R. Falster,
M. Watanabe (the 210th Meeting of the Electrochemical Society, Oct. 29th - 3rd, 2006,
Cancun, Mexico), ECS Transactions 3 (4), 147 (2006)
30. *"From Smart-Cut® to Soft-Cut: Mechanisms of Hydrogen Plasma Supported Layer
Exfoliation in Silicon"*
R. Job, W. Dungen, Y. Ma, J. T. Horstmann;
in: "High Purity Silicon IX", Editors: C. L. Claeys, P. Stallhofer, R. Falster,
M. Watanabe (the 210th Meeting of the Electrochemical Society, Oct. 29th - 3rd, 2006,
Cancun, Mexico), ECS Transactions 3 (4), 417 (2006)
31. *"The Ultrastructure of Brachiopod Shells – A Mechanically Optimized Material with
Hierarchical Architecture"*
E. Griesshaber, K. Kelm, M. Knieps, W. W. Schmahl, R. Job, W. Mader;
in: "Mechanical Behavior of Biological and Biomimetic Materials", Editors:
A. J. Bushby, V. L. Ferguson, C.-C. Ko, M. L. Oye, MRS Symposium Proceedings
Series, Vol. 898E (the 2005 MRS Fall Meeting, Boston, USA), 0898-L12-01 (2006)
32. *"Chemical Structuring and Materials Design in the Shell of Modern Brachiopods"*
E. Griesshaber, R. Job, W. W. Schmahl, R. D. Neuser;
in: "Mechanical Behavior of Biological and Biomimetic Materials", Editors:
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Series, Vol. 898E (the 2005 MRS Fall Meeting, Boston, USA), 0898-L12-04 (2006)
33. *"Micro-Raman Analysis of Ion Implanted and Plasma Hydrogenated Czochralski Silicon
Wafers"*
R. Job, W. Dungen, Y. Ma, Y. L. Huang, J. T. Horstmann;
Proceedings of the XIIIth International Workshop on the Physics of Semiconductor
Devices (IWPSD '2005), Dec. 13th – 17th, 2005, Delhi, India, p. 1176 (2005)
(eingeladen)
34. *"Hydrogen Related Defects in Czochralski Silicon Close to the Wafer Surface: Defect
Analysis and Technological Prospects"*
R. Job;
in: "Microelectronics Technology and Devices (SBMicro 2005)", Editors: C. L. Claeys, J.
W. Swart, N. I. Morimoto, P. Verdonck, Electrochemical Society Proceedings, Vol.
2005-08 (the 20th Symposium on Microelectronics Technology and Devices, Sept. 4th –
7th, 2005, Florianopolis, Brazil), p. 106 (2005)
(Tutorial, eingeladen)

35. *"Micro-Raman Analysis of Hydrogen Related Defects in Czochralski Silicon"*
R. Job, W. Dungen, Y. Ma, Y. L. Huang, J. T. Horstmann;
in: "Microelectronics Technology and Devices (SBMicro 2005)", Editors: C. L. Claeys, J. W. Swart, N. I. Morimoto, P. Verdonck, Electrochemical Society Proceedings, Vol. 2005-08 (the 20th Symposium on Microelectronics Technology and Devices, Sept. 4th – 7th, 2005, Florianopolis, Brazil), p. 90 (2005)
(eingeladen)
36. *" μ -Raman Investigations on Hydrogen Gettering in Hydrogen Implanted and Hydrogen Plasma Treated Czochralski Silicon"*
W. Dungen, R. Job, Y. Ma, Y. L. Huang, W. R. Fahrner, L. O. Keller, J. T. Horstmann;
Proceedings "GADEST 2005, 11th International Autumn Meeting", 25. – 30.9.2005, Giens, France, Trans Tech Publications Ltd., Zürich, Switzerland (2005), p. 91
(siehe auch: Diffusion & Defect Data Pt. B: Solid State Phenomena 108-109, 91 (2005))
37. *"Evolution of Hydrogen Related Defects in Plasma Hydrogenated Crystalline Silicon under Thermal and Laser Annealing"*
Y. Ma, Y. L. Huang, R. Job, W. Dungen, W. R. Fahrner;
Proceedings "GADEST 2005, 11th International Autumn Meeting", 25. – 30.9.2005, Giens, France, Trans Tech Publications Ltd., Zürich, Switzerland (2005), p. 211
(siehe auch: Diffusion & Defect Data Pt. B: Solid State Phenomena 108-109, 211 (2005))
38. *"DLTS Study on Deep Levels Formed in Plasma Hydrogenated and Subsequently Annealed Silicon"*
Y. L. Huang, E. Simoen, C. Claeys, R. Job, Y. Ma, W. Dungen, W. R. Fahrner, J. Versluys, P. Clauws;
Proceedings "GADEST 2005, 11th International Autumn Meeting", 25. – 30.9.2005, Giens, France, Trans Tech Publications Ltd., Zürich, Switzerland (2005), p. 547
(siehe auch: Diffusion & Defect Data Pt. B: Solid State Phenomena 108-109, 547 (2005))
39. *"Micro-Raman Spectra Analysis of the Evolution of Hydrogen Related Defects and Void Formation in the Silicon Ion-Cut Process"*
W. Dungen, R. Job, Y. Ma, Y. L. Huang, W. R. Fahrner, L. O. Keller, A. Wiggershaus, J. T. Horstmann;
in: "Semiconductor Defect Engineering – Materials, Synthetic Structures, and Devices", Editors: S. Ashok, J. Chavallier, B. L. Sopori, M. Tabe, P. Kiesel, MRS Symposium Proceedings Series, Vol. 864 (the 2005 MRS Spring Meeting, San Francisco, USA), p. 503 (2005)
40. *"Void Formation in Hydrogen Implanted and Subsequently Plasma Hydrogenated and Annealed Czochralski Silicon"*
R. Job, W. Dungen, Y. Ma, Y. L. Huang, J. T. Horstmann;
in: "Semiconductor Defect Engineering – Materials, Synthetic Structures, and Devices", Editors: S. Ashok, J. Chavallier, B. L. Sopori, M. Tabe, P. Kiesel, MRS Symposium Proceedings Series, Vol. 864 (the 2005 MRS Spring Meeting, San Francisco, USA), p. 487 (2005)

41. *"PN-Junction Diodes Fabricated on the Basis of Hydrogen Enhanced Thermal Donor Formation in P-Type Czochralski Silicon"*
Y. L. Huang, E. Simoen, R. Job, C. Claeys, W. Dünge, Y. Ma, W. R. Fahrner, J. Versluys, P. Clauws;
in: "Semiconductor Defect Engineering – Materials, Synthetic Structures, and Devices", Editors: S. Ashok, J. Chavallier, B. L. Sopori, M. Tabe, P. Kiesel, MRS Symposium Proceedings Series, Vol. 864 (the 2005 MRS Spring Meeting, San Francisco, USA), p. 307 (2005)
42. *"Microstructure of Brachiopod Shells – An Inorganic/Organic Fibre Composite with Nanocrystalline Protective Layer"*
E. Griesshaber, W. Schmahl, R. Neuser, R. Job, M. Bluem, U. Brand;
in: "Mechanical Properties of Bio-Inspired and Biological Materials", Editors: K. Katti, F. J. Ulm, C. Hellmich, C. Viney, MRS Symposium Proceedings Series, Vol. 844 (the 2004 MRS Fall Meeting, Boston, USA), p. 99 (2005)
43. *"Micro-Scale Physical and Chemical Heterogeneities in Biogenic Materials – A Combined Micro-Raman, Chemical Composition and Microhardness Investigation"*
E. Griesshaber, R. Job, T. Pettke, W. W. Schmahl;
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44. *"Control of Stress in Surface Engineered Silicon"*
Y. Ma, R. Job, B. Zölgert, W. Dünge, Y. L. Huang, W. R. Fahrner;
in: "Surface Engineering – Fundamentals and Applications", Editors: J. E. Krzanowski, S. N. Basu, J. Patscheider, Y. Gogotsi, MRS Symposium Proceedings Series, Vol. 843 (the 2004 MRS Fall Meeting, Boston, USA), p. 99 (2005)
45. *"On the Formation Kinetics of Thin Nanopatterned Layers on Silicon Wafers Created by Hydrogen Plasma Exposure"*
R. Job, Y. L. Huang, Y. Ma, B. Zölgert, W. Dünge;
in: "Kinetics-Driven Nanopatterning on Surfaces", Editors: E. Chason, G. Gilmer, H. Huang, E. Wang, MRS Symposium Proceedings Series, Vol. 849 (the 2004 MRS Fall Meeting, Boston, USA), p. 103 (2005)
46. *"Thermal Evolution of Hydrogen Related Defects in Silicon Investigated by μ -Raman Spectroscopy"*
Y. Ma, Y. L. Huang, R. Job, W. R. Fahrner, M.-F. Beaufort, J.-F. Barbot;
in: "High Purity Silicon VIII", Editors: C. L. Claeys, M. Watanabe, R. Falster, P. Stallhofer, Electrochemical Society Proceedings, Vol. 2004-05 (the 206th Meeting of the Electrochemical Society, Oct. 3rd - 8th, 2004, Honolulu, USA), p. 385 (2004)
47. *"Morphology and Stress Investigations of Surface and Subsurface Regions of Plasma Hydrogenated and Annealed Czochralski Silicon"*
R. Job, Y. Ma, Y. L. Huang, W. Dünge;
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48. *"Hydrogen Diffusion Characterized by Hydrogen Enhanced Thermal Donor Formation in P-Type Czochralski Silicon at Temperatures between 350 and 450 °C"*
Y. L. Huang, Y. Ma, R. Job, W. R. Fahrner;
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49. *"Structuring of Silicon Wafer Surfaces on the sub-100 nm Scale by Hydrogen Plasma Treatments"*
R. Job, Y. Ma, A. G. Ulyashin;
in: "Continous Nanophase and Nanostructured Materials", Editors: S. Komarneni, J. Watkins, J. C. Parker, MRS Symposium Proceedings Series, Vol. 788 (the 2003 MRS Fall Meeting, Boston, USA), p. 571 (2004)
50. *"Structuring of Silicon Surface and Subsurface Layers by Plasma Hydrogenation - Defect Analysis and Technological Prospects"*
R. Job, Y. Ma, Y. L. Huang, A. G. Ulyashin;
Proceedings of the XIIth International Workshop on the Physics of Semiconductor Devices (IWPSD '2003), Dec. 16th - 20th, 2003, Chennai/Madras, India, p. 100 (2004) **(eingeladen)**
51. *"Depth Resolved Defect Analysis by Micro-Raman Investigations on Plasma Hydrogenated Czochralski Silicon Wafers"*
R. Job, Y. Ma, Y. L. Huang, A. G. Ulyashin, W. R. Fahrner, M.-F. Beaufort, J.-F. Barbot;
Proceedings "GADEST 2003, 10th International Autumn Meeting", 21.9. - 26.9.2003, Zeuthen, Germany, Trans Tech Publications Ltd., Zürich, Switzerland (2003), p. 141 (siehe auch: Diffusion & Defect Data Pt. B: Solid State Phenomena 95-96, 141 (2003))
52. *"Minority Carrier Lifetime Improvement in P-Type Silicon by Oxygen Related Centers Gettering at Low Temperatures: Application to the Heterojunction Solar Cell Processing"*
A. Ulyashin, R. Bilyalov, A. Bruck, M. Scherff, R. Job, W. Fahrner, J. Poortmans;
Proceedings of "3rd World Conference on Photovoltaic Energy Conversion", 12th-16th May, 2003, Osaka, Japan, Arisumi Printing Inc., vol. 2, p. 1088 (2003)
53. *"Effect of Electron Irradiation on Thermal Donors in Oxygen-Doped High-Resistive FZ Si"*
K. Takakura, H. Ohyama, T. Yoshida, H. Murakawa, J. M. Rafi, R. Job, A. Ulyashin, E. Simoen, C. Claeys;
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54. *"Analysis of Oxygen Thermal Donor Formation in n-Type Cz Silicon"*
J. M. Rafi, E. Simoen, C. Claeys, A. G. Ulyashin, R. Job, W. R. Fahrner, J. Versluys, P. Clauws, M. Lozano, F. Campabadal;
in: "Analytical and Diagnostic Techniques for Semiconductor Materials, Devices, and Processes", Editors: B. O. Kolbesen, C. Claeys, P. Stallhofer, F. Tardif, D. K. Schroder, T. J. Shaffner, M. Tajima, Electrochemical Society Proceedings, Vol. 2003-03 (joint proceedings of the symposia on ALTECH 2003, Analytical Techniques for Semiconductor Materials and Process Characterization IV, Apr. 27th - May 2nd, 2003, Paris, France, and 202nd Meeting of the Electrochemical Society, Oct. 20th - 25th, 2002, Salt Lake City, USA), p. 96 (2003)

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43 eingeladene Vorträge/Seminare:

1. *"Teaching Electrochemical Energy Storage to Engineers "*
CHISA 2020 Prag, De Gryuter – CHISA EFCE webinar, 26.11.2020
(**'Webinar'**)
2. *"What is our problem with energy and resources?"*
7.11.2018, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Homero Dewes
(**'Seminar'**)
3. *"What is our problem with energy and resources?"*
13.9.2017, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Homero Dewes
(**'Seminar'**)
4. *"What seems to be the trouble with energy and resources"*
3.3.2017, Universidade Federal do Rio Grande do Norte, Natal, Brazil
Gastgeber: Prof. Dr. Marcio Kreutz
(**'Seminar'**)
5. *"Teaching Informatics"*
6.3.2017, Instituto Federal Rio Grande do Norte, Natal, Brazil
zusammen mit Kathrin Ungru, FH Münster
(**'Workshop'**)
6. *"Teaching Electrochemical Energy Storage for Undergraduate Electrical Engineers"*
7.3.2017, Instituto Federal Rio Grande do Norte, Natal, Brazil
(**'Workshop'**)
7. *"Development Process for MEMS Pressure Sensors with CMOS Read-Out Circuitry"*
'29th Symposium on Integrated Circuits and Systems Design (SBCCI 2016)', Aug. 29th –
Sept. 3rd, 2016, Belo Horizonte, Brazil
(**'Tutorial'**)
8. *"Do we have an Energy Crisis? – A brief discussion on energy and resources"*
24.8.2016, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Homero Dewes
(**'Seminar'**)
9. *"Integrated Pressure Sensors – Design and Dimensioning"*
23.8.2016, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Gilson Wirth
(**'Tutorial'**)
10. *"Materials, Resources and the Impact on our Societies and Future Technology"*
8.9.2015, Instituto Federal do Rio Grande do Norte, Natal, Brazil
Gastgeber: Solange Thomaz, MSc.
(**'Tutorial'**)
11. *"Dependency on Materials and Resources - How can we reach a sustainable society?"*
29.7.2015, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Homero Dewes
(**'Seminar'**)
12. *"Elektrisch aktive Defektkomplexe in protonenimplantierten und getemperten Float-Zone-Siliziumwafern"*

- 19.3.2014, Universität Konstanz, Fachbereich für Physik, Konstanz
Gastgeber: Prof. Dr. G. Hahn
13. *"Optimization of Integrated Pressure Sensor Systems for Widely Spread Applications"*
14.8.2013, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Gilson Wirth
(**'Tutorial'**)
14. *"Materials and Environment"*
14.8.2013, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Homero Dewes
(**'Seminar'**)
15. *"The Thermal Budget of Hydrogen-related Donor Profiles: Diffusion-limited Activation and Thermal Dissociation"*
'High Purity Silicon 12' (Pacific Rim Meeting on Electrochemical and Solid-State Science, PRIME 2012, joint international meeting: the 222nd Meeting of the Electrochemical Society and 2012 Fall Meeting of the Electrochemical Society of Japan), Oct. 7th – 12th, 2012, Honolulu, USA
16. *"Resources and Environment"*
6.9.2012, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Homero Dewes
(**'Seminar'**)
17. *"Defect Engineering and Analysis of Light-Ion Implanted Float-Zone Silicon"*
4.9.2012, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil
Gastgeber: Prof. Dr. Gilson Wirth
(**'Tutorial'**)
18. *"Defect Engineering for Modern Power Devices"*
17.5.2012, Symposium A: Advanced Silicon Materials Research for Electronic and Photovoltaic Applications III, E-MRS Spring Meeting, May 14th – 18th, 2012, Strasbourg, France
19. *"Analysis of Electrically Active Defects in Light Ion Implanted Silicon by Simple Spreading Resistance Measurements"*
17.12.2010, Université Paul Cézanne Aix-Marseille III, Marseille, France
20. *"Recent Studies on Electrically Active Defects in Light Ion Implanted Silicon"*
20.5.2010, Centre National de la Recherche Scientifique (CNRS), Conditions Extrêmes et Matériaux: Haute Température et Irradiation (CEMHTI UPR3079), Orléans, France
21. *"Distance Learning at the University Level – The University of Hagen Guided Tour"*
21.5.2010, Université d'Orléans, France
22. *"Detection of Vacancy Distributions by Decoration with Hydrogen"*
'Analytical Techniques for Semiconductor Materials and Process Characterization VI (ALTEC)' (the 216th Meeting of the Electrochemical Society), Oct. 4th – 9th, 2009, Vienna, Austria

23. *"Dotierung von FZ-Silizium durch Implantation mit leichten Ionen und Wasserstoff-plasmabehandlungen"*
26.6.2009, Ruhr-Universität Bochum, Fakultät für Physik und Astronomie, RUBION, Seminar zu Ionenstrahlen und Radionukliden in Wissenschaft und Technik
Gastgeber: PD Dr. J. Meijer
24. *"Demands and Challenges for a Sustainable Energy Supply Concept"*
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25. *"From Smart-Cut to Soft-Cut Processes – Mechanisms of Silicon Layer Exfoliation studied by Micro-Raman Spectroscopy"*
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26. *"Defect Analysis of Hydrogen Implanted and Plasma Hydrogenated Czochralski Silicon Wafers by Raman Spectroscopy"*
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27. *"Micro-Raman Analysis of Ion Implanted and Plasma Hydrogenated Czochralski Silicon Wafers – from Smart-Cut- to Soft-Processes"*
14.3.2006, University of Orléans, Laboratoire d'Électronique, Signaux, Images (L.E.S.I.), Chartres, France
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28. *"Micro-Raman Analysis of Ion Implanted and Plasma Hydrogenated Czochralski Silicon Wafers"*
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29. *"Vom "Smart-Cut®" zum "Soft-Cut" – Analyse von auf Wasserstoff basierenden Defekten in ionenimplantierten und plasmabehandelten Siliziumwafern"*
16.11.2005, Ruhr-Universität Bochum, Fakultät für Physik und Astronomie, Vortragsreihe: 'Spektroskopie der kondensierten Materie'
30. *"Hydrogen Related Defects in Czochralski Silicon Close to the Wafer Surface: Defect Analysis and Technological Prospects"*
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31. *"μ-Raman Analysis of Hydrogen Related Defects in Czochralski Silicon"*
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32. *"Structuring of Silicon Surface and Subsurface Layers by Plasma Hydrogenation - Defect Analysis and Technological Prospects"*
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33. *"Low Temperature Doping of Silicon by Hydrogen Plasma Treatments"*
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34. *"High Voltage Diodes Prepared by Hydrogen Enhanced Thermal Donor Formation"*
21.10.2002, University of Utah, Department of Physics, Salt Lake City, UT, USA
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35. *"A Low Temperature Technology on the Base of Hydrogen Enhanced Thermal Donor Formation for Future High Voltage Applications"*
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36. *"Platelet Formation in Cz Si after Plasma Hydrogenation and Annealing"*
16.11.2001, Wacker Siltronic AG, Burghausen, Germany
Gastgeber: Dr. W. von Ammon
37. *"Modification of Bulk and Surface Properties of Czochralski Silicon by Hydrogen Plasma Treatments at Moderate Temperatures"*
22.2.2001, Kyushu National Industrial Research Institute (KNIRI), Tosu, Japan
Gastgeber: Dr. E. Abe
38. *"Bulk and Surface Properties of Cz-Silicon after Hydrogen Plasma Treatments"*
17.10.2000, PennState University, State College, PA, USA
Gastgeber: Prof. Dr. S. Ashok, Prof. Dr. P. Lenahan
39. *"A Concise Study on Luminescence of Dealuminated Faujasite and the Formation of Nanoclusters in the Zeolite Host Structure"*
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– 3.12.1999, San Jose, CA, USA
40. *"Active Defect-Engineering by a Controlled Thermal Donor Formation in Cz-Silicon"*
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41. *"Aktives Defect-Engineering durch gezielte Erzeugung thermischer Donatoren in Cz-Silizium mit plasmatechnologischen Verfahren"*
20.2.1998, Bergische Universität Wuppertal, Fachbereich E: Elektrotechnik,
Informationstechnik, Medientechnik
Gastgeber: Prof. Dr. J. Engemann
42. *"Wasserstoff in Silizium"*
4.7.1997, Ruhr-Universität Bochum, Fakultät für Physik und Astronomie
Gastgeber: Prof. Dr. J. Pelzl
43. *"Some Comments on the Magnetic Phase Diagrams of Bi- and Tl-containing High-T_c Superconductors with Critical Temperatures above 100 K"*
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Yongpyung, Korea

8 Bücher und Buchkapitel:

1. *"Electrochemical Energy Storage – Physics and Chemistry of Batteries"*
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Lehrbuch, De Gruyter Verlag (2020)
ISBN 978-3-11-048437-3
2. *"Zeolites and Nanoclusters in Zeolite Host Lattices"*
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in: "Nanotechnology and Nanoelectronics – Materials, Devices, Measurement Techniques", Editor: W. R. Fahrner, Springer-Verlag, Berlin, Heidelberg, New York (2005),
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3. *"Defects in Plasma Hydrogenated Crystalline Silicon"*
Y. L. Huang, Y. Ma, W. R. Fahrner, R. Job;
in: "Recent Research Developments in Electrochemistry, Vol. 8", Transworld Research Network, Kerala, India (2005), p. 327-367
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4. *"The Fabrication of P-N Junction Diodes based on Hydrogen Enhanced TD Formation in Czochralski Silicon"*
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6. *"Zeolithe und Nanocluster in Zeolithwirtsgittern"*
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7. *"Plasmaunterstützte Niedertemperaturprozesse für die Siliziumtechnologie / Prozessentwicklung und Defekt-Engineering"*
R. Job;
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8. *"Bonding on Diamond"*
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4 Sonstige Veröffentlichungen (Habilitationsschrift, Dissertation, etc.):

1. *"Herstellung von 'Silicon-On-Insulator'-Schichten durch Ionenimplantation bei geringen Dosen in Kombination mit anschließenden Plasmabehandlungen"*
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2. *"Plasmaunterstützte Niedertemperaturprozesse für die Siliziumtechnologie / Prozessentwicklung und Defekt-Engineering"*
R. Job;
Habilitationsschrift, FernUniversität in Hagen, Fachbereich Elektrotechnik und Informationstechnik (2002)
3. *"Präparation und magnetische Untersuchung des Vortex-Zustandes von Bi- und Tl-haltigen Hochtemperatursupraleitern mit kritischen Temperaturen über 100 K"*
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4. *"Untersuchung von magnetischen Eigenschaften an $Ni_{80-x}Co_xB_{16}Si_4$ -Legierungen"*
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Verhandlungen der Deutschen Physikalischen Gesellschaft (DPG), 25 Abstracts:

1. *"The Influence of Various Physical Parameters on the Removal Rate of Thermochemically Polished CVD Diamond Films"* (HL10.10)
J. A. Weima, R. Job, F. Blum, W. R. Fahrner;
Verhandl. DPG (VI) 35, 507 (2000)
2. *"Non-Diamond Carbon Phases on the Surfaces of Transition Metal Enhanced Polished CVD Diamond Films"* (HL10.9)
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3. *"Optical Examination of the Surfaces of Thermochemically Polished CVD Diamond Films"* (HL10.1)
J. A. Weima, W. R. Fahrner, R. Job, A. M. Zaitsev;
Verhandl. DPG (VI) 35, 505 (2000)
4. *"Optimierung des optischen Auswahlverfahrens von CVD-Diamanten für Sensoranwendungen"* (HL9.2)
F. Blum, G. Kosaca, R. Job, W. R. Fahrner;
Verhandl. DPG (VI) 34, 715 (1999)
5. *"N-Dotierung des Diamanten mit Lithium: Versuche mit Ionenimplantation an verschiedenen Diamanten"* (HL9.5)
G. Kosaca, A. Denisenko, A. Zaitsev, F. Blum, R. Job, W. R. Fahrner;
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6. *"Ätzzraten bei implantierten und getemperten Diamanten"* (HL12.4)
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7. *"Active Defect-Engineering by a Controlled Formation of Thermal Donors in Cz Silicon"* (HL33.8)
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8. *"Untersuchung der Temperaturabhängigkeit elektrischer Kennlinien von p-i-p Halbleiter-Teststrukturen auf Diamant"* (HL32.6)
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9. *"Low-Temperature Doping of p-Type Czochralski Silicon by Hydrogen Plasma Treatment"* (HL38.11)
D. Borchert, A. Ulyashin, Y. Bumay, G. Grabosch, R. Job, W. R. Fahrner;
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10. *"Thermochemical Polishing of Polycrystalline CVD Diamond Films"* (HL11.12)
A. Zaitsev, G. Kosaca, A. Melnikov, V. Varichenko, R. Job, W. R. Fahrner;
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11. *"Optimization of Cooling Systems for High Power Laser Diodes with Diamond Heat Spreaders by Numerical Simulation"* (HL4.3)
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13. *"Wasserstoffplasma-Behandlung von Ionen-implantierten Halbleiterstrukturen auf natürlichen und synthetischen Diamanten"* (HL33.12)
A. V. Denisenko, A. G. Ulyashin, R. Job, G. Grabosch, D. Borchert, A. A. Melnikov,
A. M. Zaitsev, W. R. Fahrner;
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14. *"Herstellung und Charakterisierung von $\mu\text{-Si,C:H}$ Schichten"* (HL28.30)
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15. *"n-Dotierung von Diamant durch Hochtemperatur-Li-Implantationen"* (HL33.5)
R. Job, A. V. Denisenko, A. M. Zaitsev, W. R. Fahrner;
Verhandl. DPG (VI) 31, 1574 (1996)
16. *"Galvanische Silberverstärkung der Kontaktfinger auf Solarzellen mit Hilfe von zyanidfreien Bädern"* (HL20.24)
G. Grabosch, M. Zimmer, R. Job, D. Borchert, W. R. Fahrner;
Verhandl. DPG (VI) 30, 1222 (1995)
17. *"Charakterisierung und Optimierung von Elektronenstrahl-verdampften Indium-Zinn-Oxid-Schichten (ITO) mit Hilfe von Leitfähigkeits- und Transmissionsmessungen"* (HL6.11)
R. Job, D. Borchert, G. Grabosch, C. Wolffersdorf, W. R. Fahrner;
Verhandl. DPG (VI) 30, 1149 (1995)
18. *"Mößbauerspektroskopische Untersuchungen von 57-Fe-dotierten Hochtemperatur-Supraleitern $(\text{Bi,Pb})_2\text{Sr}_2\text{Ca}_{n-1}\text{Cu}_n\text{O}_{2n+4}$ with $n = 2, 3$ "* (TT20.5)
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19. *"Relaxationsmessungen zur Untersuchung von Flußkriechen in polykristallinen (Bi,Pb) -2223 und Tl-2223 HTSL"* (TT20.18)
M. Mittag, R. Job, M. Rosenberg, B. Himmerich, H. Sabrowsky;
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20. *"Magnetische Charakterisierung von Tl-1223 Hoch- T_c -Supraleitern"* (TT20.19)
R. Job, M. Mittag, M. Rosenberg, B. Himmerich, H. Sabrowsky;
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21. *"Relaxations- und Widerstandsmessungen zur Untersuchung von Flußkriechen in keramischen Hochtemperatursupraleitern"* (TT7.6)
M. Mittag, R. Job, R. Wernhardt, M. Rosenberg;
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22. *"Untersuchung zur Herstellung von keramischen 2223-Bi,Pb-haltigen Hochtemperatursupraleitern"* (TT14.8)
R. Job, M. Rosenberg, H. Bach, P. Stauche;
Verhandl. DPG (VI) 25, 1255 (1990)

23. *"Irreversibilitätslinie und anomales Verhalten von H_{c1} in keramischen $(Bi,Pb)_2Sr_2Ca_2Cu_3O_y$ Hochtemperatursupraleitern"* (TT14.29)
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24. *"Supraleitende Phasen und Eigenschaften keramischer $Bi_2Sr_{1.5+x}Ca_{1.5-x}Cu_2O_{8+\sigma}$ und $Bi_2Sr_2Ca_2Cu_3O_{10+\sigma}$ -Proben"* (TT12.30)
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