A virtual reactor for simulation of plasma enhanced chemical vapor deposition
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Chapter 10. Publications

1. V.V. Korkhov, V.V. Krzhizhanovskaya, J.T. Moscicki. Dynamic Workload Balancing of Parallel Applications with User-Level Scheduling on the Grid. Accepted for publication in the Future Generation Computer Systems. 2008

2. V.V. Korkhov, J.T. Moscicki and V.V. Krzhizhanovskaya. User-Level Scheduling of Divisible Load Parallel Applications with Resource Selection and Adaptive Workload Balancing on the Grid. Accepted for publication in the IEEE Systems Journal, Special Issue on Grid Resource Management. 2008

3. J.K. Rath, A. Verkerk, M. Brinza, R.E.I. Schropp, W.J. Goedheer, V.V. Krzhizhanovskaya, Y.E. Gorbachev, K.E. Orlov, E.M. Khilkevitch, A.S. Smirnov. Gas phase considerations for the deposition of thin film silicon cells by VHF-PECVD at low substrate temperatures. Accepted at the 33rd IEEE PVSEC.

4. A. Verkerk, J.K. Rath, M. Brinza, R.E.I. Schropp, W.J. Goedheer, V.V. Krzhizhanovskaya, Y.E. Gorbachev, K.E. Orlov, E.M.Khilkevitch, A.S. Smirnov. Compensation of decreased ion energy by increased hydrogen dilution in plasma deposition of thin film silicon solar cells at low substrate temperatures. Accepted at the Symposium K of the EMRS spring meeting.


9. V.V. Krzhizhanovskaya, Y.E. Gorbachev, M.A. Zatevakhin and P.M.A. Sloot, "Virtual Reactor" – Computational Environment for Multidimensional Simulation of Plasma

* Listed in reverse chronological order


12. V.V. Krzhizhanovskaya. Software Environment for Simulation of Plasma-Chemical Deposition Reactors on Heterogeneous Computational Resources of the Grid. Proceedings of the conference on Computer Technologies in Modern Researches, Polytechnic Symposium "Young Scientists to the industry of Northwest Russia". December 2006. Publ: St. Petersburg State Polytechnic University 2006, pp. 81-82. ISBN 5-7422-1365-4. Best presentation award.


17. V.V. Krzhizhanovskaya and V.V. Korkhov. Problem-Solving Environments for Simulation and Optimization on Heterogeneous Distributed Computational Resources of the Grid. Proceedings of the Third International Conference on Parallel Computations and Control Problems PACO ‘2006, Moscow, Russia, October 2-4, 2006. Publ: Moscow, V.A. Trapeznikov Institute of Control Sciences RAS, 2006. pp. 917-932. ISBN 5-201-14990-1.

18. V.V. Krzhizhanovskaya, V.V. Korkhov, P.M.A. Sloot. Virtual Reactor: a distributed computing environment for simulation of plasma chemical processes on heterogeneous resources of the Grid. All-Russian conference "Scientific services on the Internet: Parallel Programming Technologies", Novorossiysk, Russia, 18-23 September 2006

19. Y.E. Gorbachev, A.I. Zhmakin, M.A. Zatevakin, V.V. Krzhizhanovskaya, M.V. Bogdanov, A.V. Kulik, D.H. Ofengeim, M.S. Ramm. From Electronic Textbooks to Virtual Laboratories. Telecommunications and Informatization in Education, № 5 (36), 2006. Publ: SGU, Moscow (in Russian)


25. V.V. Krzhizhanovskaya, P.M.A. Sloot and Y.E. Gorbachev. Grid-based Simulation of Industrial Thin-Film Production. Simulation: Transactions of the Society for Modeling and Simulation International, Special Issue on Applications of Parallel and Distributed
Simulation in Industry, January 2005, V. 81, No. 1, pp. 77 - 85. ISSN:0037-5497 DOI: 10.1177/0037549705051972 http://sim.sagepub.com/cgi/reprint/81/1/77

26. V.V. Krzhizhanovskaya, Y.E. Gorbachev and P.M.A. Sloat. A Grid-Based Problem-Solving Environment for Simulation of Plasma Enhanced Chemical Vapor Deposition. Proceedings of the International Conference "Distributed Computing and Grid Technologies in Science and Education". Publ: JINR, Dubna, 2004, pp. 262-271

27. V.V. Krzhizhanovskaya, Y.E. Gorbachev and P.M.A. Sloat. A Grid-Based Problem-Solving Environment for Simulation of Plasma Enhanced Chemical Vapor Deposition. Book of abstracts of the International Conference "Distributed Computing and Grid Technologies in Science and Education". 29 June – 2 July 2004, Dubna, Russia, Publ: JINR, Dubna, 2004, pp. 89-90. ISBN 5-9530-0052-9

28. Y.E. Gorbachev, M.A. Zatevakhin, Ignatiev A.A., Krzhizhanovskaya. Virtual Laboratory for Research and Education. XI International Conference on High Technologies and Quality of Education and Science, St. Petersburg Polytechnic University. 27-28 February 2004. Publ.: SPbPU, St. Petersburg, 2004, pp. 59-60


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33. A.V. Porubov, G.A. Maugin, V.V. Gursky, V.V. Krzhizhanovskaya, D.V. Shevchenko. Localized nonlinear strain waves in complex dispersive-dissipative solids. Proceedings of the XXXI International Conference "Advanced Problems in Mechanics" Russia, St.

35. V.V. Krzhizhanovskaya, M.A. Zatevakhin, A.A. Ignatiev, Y.E. Gorbachev, P.M.A. Sloot. Distributed Simulation of Silicon-Based Film Growth. Proceedings of the Fourth International Conference on Parallel Processing and Applied Mathematics (PPAM 2001) Naleczow, Poland, September 9-12, 2001, in series Lecture Notes in Computer Science, Vol. 2328, pp. 879-888. Springer-Verlag 2002. ISBN: 3-540-43792-4, ISSN: 0302-9743 http://www.springerlink.com/content/erj5rtybb3030pe6/


39. Y.E. Gorbachev, M.A. Zatevakhin, V.V. Krzhizhanovskaya, V.A. Shveigert. Special Features of the Growth of Hydrogenated Amorphous Silicon in PECVD Reactors. Technical Physics, Vol. 45, N 8, pp. 1032-1041. Publ.: MAIK Nauka/Interperiodika 2000. ISSN: 1063-7842

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41. M.A. Zatevakhin, V.V. Krzhizhanovskaya, Y.E. Gorbachev. Simulation of a-Si:H Film Growth During Remote PECVD. XIV Europhysics conference on Atomic and Molecular Physics of Ionized Gases (ESCAMPIG 98), Malahide Dublin, Ireland,1998. Europhysics Conference Abstracts 1998, V. 22H, pp. 488-489. Publisher: The European Physical Society, Switzerland. ISSN 0378-2271 http://direct.bl.uk/bld/PlaceOrder.do?UIN=054438709&ETOC=RN
42. Y.E. Gorbachev, M.A. Zatevakhin, V.V. Krzhizhanovskaya. Hydrogenated Amorphous Silicon Film Growth in Remote PECVD. Proceedings of the All-Russian Symposium on Amorphous and Microcrystalline Semiconductors, St. Petersburg, Russia, 5-9 July 1998, p.24

43. Y.E. Gorbachev, M.A. Zatevakhin, V.V. Krzhizhanovskaya. Simulation of Amorphous Hydrogenated Silicon Plasma Enhanced Chemical Vapor Deposition in a Triode Reactor. Proceedings of the NATO workshop on Plasma Physics, St. Petersburg, Russia, 1997