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**A virtual reactor for simulation of plasma enhanced chemical vapor deposition**

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## Chapter 10. Publications\*

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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.
5. V.V. Korkhov; V.V. Krzhizhanovskaya and P.M.A. Sloot: A Grid Based Virtual Reactor: A case study of parallel performance and adaptive load balancing. Journal of Parallel and Distributed Computing, V. 68/5, May 2008, pp 596-608. <http://dx.doi.org/10.1016/j.jpdc.2007.08.010>
6. V.V. Krzhizhanovskaya, V.V. Korkhov, M.A. Zatevakhin, Yu.E. Gorbachev. Parallel Distributed Computing in Modeling of the Nanomaterials Production Technologies. Parallel Computing Technologies (PAVT'2008): Proceedings of international scientific conference (St. Petersburg, 28 Jan – 1 Feb 2008). Publ.: YUSU, Chelyabinsk. 2008 ISBN 978-5-696-03720-2, pp. 585-590
7. Y.E. Gorbachev, V.V. Krzhizhanovskaya, M.V. Bogdanov, A.I. Zhmakin, A.V. Kulik, M.S. Ramm. Virtual Laboratories: Problem Solving Environments for Science and Education. Proceedings of the XIV All-Russian conference Telematika'2007. June 18-21, 2007, St. Petersburg, Russia. "University Telecommunications", St. Petersburg, pp. 108-109 (in Russian) [http://tm.ifmo.ru/tm2007/db/doc/get\\_thes.php?id=290](http://tm.ifmo.ru/tm2007/db/doc/get_thes.php?id=290)
8. V.V. Krzhizhanovskaya (Editor). Special Issue on Simulation of Multiphysics Multiscale Systems. International Journal for Multiscale Computational Engineering. V. 5, Issue 1, 2007. Guest editorship and Preface. DOI: 10.1615/IntJMultCompEng.v5.i1. ISSN 1543-1649
9. V.V. Krzhizhanovskaya, Y.E. Gorbachev, M.A. Zatevakhin and P.M.A. Sloot, "Virtual Reactor" – Computational Environment for Multidimensional Simulation of Plasma

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\* Listed in reverse chronological order

- Chemical Processing, Proceedings of the XV International Conference on Computational Mechanics and Modern Applied Software Systems (CMMASS-2007), 25-31 May 2007, Alushta, Ukraine, Pbl.: MAI
10. V.V. Krzhizhanovskaya and S. Sun. Simulation of Multiphysics Multiscale Systems: Introduction to the ICCS-2007 Workshop. Proceedings of the 7th International Conference on Computational Science (ICCS-2007), Beijing, China, May 27-30, 2007, Part I, in Lecture Notes in Computer Science, Vol. 4487, pp. 755-761. Springer Berlin / Heidelberg 2007. ISSN 0302-9743 (Print), 1611-3349 (Online), ISBN 978-3-540-72583-1. DOI: [http://dx.doi.org/10.1007/978-3-540-72584-8\\_100](http://dx.doi.org/10.1007/978-3-540-72584-8_100)
  11. V.V. Krzhizhanovskaya and V.V. Korkhov. Dynamic Load Balancing of Black-Box Applications with a Resource Selection Mechanism on Heterogeneous Resources of the Grid. Proceedings of the Ninth International Conference on Parallel Computing Technologies (PaCT-2007), Pereslavl-Zalessky, Russia, September 3-7, 2007, in Lecture Notes in Computer Science, Vol. 4671, pp. 245-260, Springer-Verlag Berlin Heidelberg 2007. 0302-9743 (Print) 1611-3349 (Online). <http://www.springerlink.com/content/b070j64r30916320/> DOI: 10.1007/978-3-540-73940-1
  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.
  13. V.V. Krzhizhanovskaya, V.V. Korkhov, A. Tirado-Ramos, D.J. Groen, I.V. Shoshmina, I.A. Valuev, I.V. Morozov, N.V. Malyskin, Y.E. Gorbachev, P.M.A. Sloot. Computational Engineering on the Grid: Crafting a Distributed Virtual Reactor. Second IEEE International Conference on e-Science and Grid Computing (e-Science'06), 2006, pp.101. IEEE CS Press. <http://doi.ieeecomputersociety.org/10.1109/E-SCIENCE.2006.42> (full paper on CD)
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