## Maksim S. Rakitin

**Publications** 

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## Publications

- L. Wiegart, M. Rakitin, Y. Zhang, A. Fluerasu, and O. Chubar, "Towards the simulation of partially coherent x-ray scattering experiments," AIP Conference Proceedings, vol. 2054, no. 1, p. 060079, 2019.
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- M. S. Rakitin, P. Moeller, R. Nagler, B. Nash, D. L. Bruhwiler, D. Smalyuk, M. Zhernenkov, and O. Chubar, "Sirepo: an open-source cloud-based software interface for X-ray source and optics simulations," Journal of Synchrotron Radiation, vol. 25, pp. 1877-1892, Nov 2018.
- A. Blednykh, B. Bacha, G. Bassi, W. Cheng, O. Chubar, A. Derbenev, R. Lindberg, M. Rakitin, V. Smaluk, M. Zhernenkov, Y.-c. K. Chen-Wiegart, and L. Wiegart, "New aspects of longitudinal instabilities in electron storage rings (DOE Science Highlight)," Scientific Reports, vol. 8, no. 1, p. 11918, 2018.
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- 19. M. Rakitin, A. A. Mirzoev, and D. A. Mirzaev, "First-Principles and Thermodynamic Simulation of Elasti Stress Effect on Energy of Hydrogen Dissolution in Alpha Iron," Russian Physics Journal, vol. 60, pp. 2136-2143, Apr 2018.
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- O. Chubar, M. Rakitin, Y.-C. Chen-Wiegart, A. Fluerasu, and L. Wiegart, "Simulation of 17. experiments with partially coherent x-rays using Synchrotron Radiation Workshop," in Proc. SPIE, Advances in Computational Methods for X-Ray Optics IV (23 August 2017), vol. 10388, p. 1038811, 2017.

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Last updated:

- O. Chubar, M. Rakitin, Y.-C. Chen-Wiegart, Y. S. Chu, A. Fluerasu, D. Hidas, and L. Wiegart, "Main functions, recent updates, and applications of Synchrotron Radiation Workshop code (invited paper)," in *Proc. SPIE, Advances in Computational Methods* for X-Ray Optics IV (23 August 2017), vol. 10388, p. 1038805, 2017.
- L. Wiegart, M. Rakitin, A. Fluerasu, and O. Chubar, "X-ray optical simulations supporting advanced commissioning of the coherent hard x-ray beamline at NSLS-II," in *Proc. SPIE,* Advances in Computational Methods for X-Ray Optics IV (23 August 2017), vol. 10388, p. 103880N, 2017.
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- 13. M. M. Davari Esfahani, Q. Zhu, H. Dong, A. R. Oganov, S. Wang, M. S. Rakitin, and X.-F. Zhou, "Novel magnesium borides and their superconductivity," *Phys. Chem. Chem. Phys.*, vol. 19, pp. 14486–14494, 2017.
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- D. A. Mirzaev, A. A. Mirzoev, and M. S. Rakitin, "Alloying effects on thermodynamic characteristics of hydrogen in bcc iron," *Bulletin of the South Ural State University, Ser. Metallurgy*, vol. 16, no. 4, pp. 40–53, 2016. Original Russian Text.
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- 7. M. S. Rakitin, A. R. Oganov, H. Niu, M. M. Davari Esfahani, X.-F. Zhou, G.-R. Qian, and V. L. Solozhenko, "A novel phase of beryllium fluoride at high pressure," *Phys. Chem. Chem. Phys.*, vol. 17, pp. 26283–26288, 2015.
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