

PALS publications 1998-2003

High Power Iodine Lasers

Jungwirth, K., Ullschmied, J., Rohlena, K., Rus, B., **PALS - A New High Power Facility**, Digest of technical papers of the 12th IEEE Pulsed Power Conference, Monterey, CA, 27.-30.6.1999, edited by C. Stallings and H. Kirbie, (IEEE, Inc., 1999), Vol.II, p. 1010-1013

Jungwirth K., Cejnarová A., Juha L., Králiková B., Krása J., Krouský E., Krupičková P., Láska L., Mašek K., Mocek T., Pfeifer M., Präg A., Renner O., Rohlena K., Rus B., Skála J., Straka P., Ullschmied J: **The Prague Asterix Laser System PALS**, invited talk, 42nd Annual Meeting of the APS Division of Plasma Physics and 10th International Congress on Plasma Physics, October 23-27, 2000, Quebec City; Physics of Plasma 8 (2001) 2495-2501.

Jungwirth K.: **Research and development program for the PALS facility**, invited talk, Proc. Int. Symp. PLASMA 2001, Warsaw, September 19-21, 2001.

Jungwirth K., K. Rohlena, J. Ullschmied, A. Cejnarová, L. Juha, M. Kozlová, B. Králiková, J. Krása, E. Krouský, P. Kubát, L. Láska, K. Mašek, T. Mocek, M. Pfeifer, A. Präg, O. Renner, B. Rus, P. Severová, J. Skála, P. Straka, H. Turčičová: **Prague Asterix Laser System (PALS) – Results and Upgrades**, ECLIM 2002, Moscow, 7-11 October 2002, invited talk, Proc. SPIE Vol 5228, p. 651-664.

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Láska L., K. Jungwirth, B. Králiková, J. Krása, M. Pfeifer, K. Rohlena, J. Skála, J. Ullschmied, J. Badziak, P. Parys, J. Wołowski, E. Woryna, S. Gammino, L. Torrisi, F. P. Boody, and H. Hora. **Generation of multiply charged ions at low and high laser-power densities**. Plasma Phys. Control. Fusion 45, No 5 (2003) 585-599.

Rohlena K., B. Rus, L. Juha, J. Skála, B. Králiková, K. Jungwirth, J. Ullschmied, K. J. Witte, H. Baumhacker: **Prague Asterix Laser System (PALS) and its upgrade**, Proc. XIIIth International Symposium on Gas Flow and Chemical Lasers, Florence 18. - 22.9.2000, SPIE proc.

Rohlena K., Jungwirth K., Krása J., Krouský E., Láska L., Mašek K., Pfeifer M., Rus B., Ullschmied J., Wołowski J., Badziak J., Parys P., Pisarczyk T., Ryc L., Woryna E., **Diagnostics of PALS Plasma Experiments**, German-Polish Conf. on Plasma Diagnostics for Fusion and Applications, Greifswald (Germany), September 4-6, 2002, invited talk.

Rus B., K. Rohlena, J. Skála, K. Jungwirth, J. Ullschmied, K.J. Witte, H. Baumhacker: **Upgrades to Asterix IV implemented on the new facility PALS**, Proceedings of Inertial Fusion Science and Applications, 12. - 17.9.1999 Bordeaux, edited by C. Labaune, W.J. Hogan, K.A. Tanaka, (Elsevier, Paris, Amsterdam, Lausanne, New York, Oxford, Shannon, Tokyo, 1999, p. 677.

Rus, B., Rohlena, K., Skála, J., Králiková, B., Jungwirth, K., Ullschmied, J., Witte, K.J., Baumhacker, H.: **A new high-power laser facility PALS - prospects for laser-plasma research**, Proceedings XXV ECLIM, Formia, May 4-8, 1998, revised July 1998, Laser and Particle Beams, **17**, No. 2, (1999)

Rus B., **PALS High-Power Laser Facility: Current Research and Prospects**, International R&D Conference *Imagine the New Vacuum Frontier*, Annecy, 27-28th January 2003, invited talk

Straka P; Turčičová H; Rohlena K; Rus B; Skála J; Králiková B; Ullschmied J; Jungwirth K.: **Proposed upgrades of the laser system PALS: from a novel solid-state oscillator toward petawatt**; *In: Czechoslovak Journal of Physics 2002*, Vol 52, Suppl. D, pp 368-374, 21th Symposium on Plasma Physics and Technology, June 10-13, 2002, Prague, invited talk.

Straka P., H. Turčičová, J. Skála, B. Králiková, J. Dostál, K. Rohlena, J. Ullschmied, K. Jungwirth: **High power hybrid laser with an optical parametric oscillator and gaseous amplifiers**, Conference on Lasers and Electro-Optics (CLEO 2003) and Quantum Electronics and Laser Science Conference (QELS 2003) Baltimore, USA, 1-6 June 2003.

Straka P, Turčičová H, Skála J, Králiková B, Dostál J, Rohlena K, Ullschmied J, Jungwirth K; **High power hybrid laser SOFIA with a solid state oscillator and gaseous amplifiers**; The European Conference on Lasers and Electro-Optics and the European Quantum Electronics Conference (CLEO@/Europe—EQEC 2003), June 23-27, 2003, Munich.

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XUV Lasers & Applications

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Kozlová M., B. Rus, T. Mocek, A.R. Präg, **Measurements of spatial coherence of X-ray lasers by diffraction on haircross wires**, in X-Ray Lasers 2002, AIP Conference Proceedings, Vol. 614 (2002), pp. 591–595.

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Rus B.: **Saturated x-ray laser at 21 nm and its applications** (in Czech), Čs. čas. fyz. 51 (2001) 272-274

Rus B., T.Mocek, A.R.Präg, M.Kozlová, G.Jamelot, A.Carillon, D.Ros, J.C.Lagron, D.Joyeux, and D.Phalippou, **Multi-millijoule, deeply saturated soft X-ray laser at 21 nm and its applications**, 3rd Symposium on Advanced Photon Research (JAERI, Kyoto, Japan, December 13-14, 2001), invited talk.

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Laser Plasma, Laser Ablation, Shock Waves, Craters

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