CHRONICLE

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The following papers on the topic *Physical Foundations of Laser Micro- and Nanotechnologies: Laser–Matter Interaction* will be published in the August special issue of *Opticheskii Zhurnal* (Journal of Optical Technology), Vol. 78, No. 8, 2011.

Preface by the issue's editor (V.L. Komolov).

Ablation of Dielectrics by Short Pulses of X-Ray Plasma Lasers and Free-Electron Lasers (N.A. Inogamov, S.I. Anisimov, V.V. Zhakhovsky, A.Yu. Faenov, Yu.V. Petrov, V.A. Khokhlov, V.E. Fortov, I.Yu. Skobelev, Yo. Kato, T.A. Pikuz, V.V. Shepelev, Yu. Fukuda, M. Tanaka, M. Kishimoto, M. Ishino, M. Nishikino, M. Kando, T. Kavachi, M. Nagasono, N. Ohashi, M. Yabashi, K. Tano, Yu. Senda, T. Togashi, and T. Ishikawa); Heterogeneous Laser Ablation and Its Effect on Near-Surface Plasma Formation under Action of Pulsed Laser Radiation (Yu.A. Chivel'); Electron Emission Effect on Metal Heating by Femtosecond Laser Pulses (E.B. Yakovlev, O.N. Sergaeva, and V.V. Svirina); Nonequilibrium Effects during the Action of Pulsed Laser Radiation on Metals (V.I. Mazhukin, A.V. Mazhukin, M.M. Demin, and A.V. Shapranov); Modification of a Dielectric Surface by a Laser-Induced Coulomb Explosion of a Nanoparticle (V.E. Gruzdev, V.L. Komolov, S.G. Przhibel'skii, D.S. Smirnov, and Hao Li); Optical Methods of Metal Nanostructure Formation on the Surface of a Dielectric Material (T.A. Vartanyan, V.V. Khromov, N.B. Leonov, and S.G. Przhibel'skii); Study of Nanoclusters and Microstructures Emerging on a Silicate

Surface under Resonant Action of CO₂ Laser Radiation (A.F. Mukhamedgalieva, A.M. Bondar', M.A. Kononov, V.B. Laptev, N.N. Novikova, and I.M. Shvedov); Study of Low-Threshold Mechanisms of Structure Modification of Chromium Thin Films by Ultrashort Laser Pulses (V.P. Veiko, M.V. Yarchuk, and A.I. Ivanov); Resonance Diffuse Light Reflection by Random Surface Asperities of a Photon Crystal (A.V. Sel'kin, V.A. Kosobukin, and Yu.N. Lazareva); Changes in Composition of Equilibrium Component and Spatial Orientation of Molecular Polymethine Dye Layer (Yu.M. Voronin, E.N. Kaliteevskaya, V.P. Krutyakova, T.K. Razumova, A.A. Starovoitov, and P.V. Shchedrin); A Comparative Analysis of Optoacoustic Pulses in Aluminum and Silicon (O.N. Koroleva and A.V. Mazhukin); Change in Optical Properties of Dielectrics in the IR Spectral Range Induced by UV Radiation (A.V. Afanas'ev, A.P. Aleksandrov, A.E. Mochalova, N.A. Agareva, N.V. Sapogova, L.A. Smirnova, and N.M. Bityurin); Study of Light Scattering by Small Axisymmetric Particles Using the Generalized Variable Separation Method with Spherical Basis (V.G. Farafonov, V.B. Il'in, A.A. Vinokurov, and S.V. Barkanov); Diffraction of One-Period Electromagnetic Waves (A.A. Ezerskaya, D.V. Ivanov, V.G. Bespalov, and S.A. Kozlov); Dynamic Behavior of the Permittivity of a Semiconductor under the Femtosecond Laser Action (R.V. Dyukin, G.A. Martsinovskii, G.D. Shandybina, E.B. Yakovlev, I.D. Nikiforov, and I.V. Guk).

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