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The book consists of abstracts of plenary lectures, oral reports and posters presented at the XXXIV International Conference on Interaction of Intense Energy Fluxes with Matter (1–6 March 2019, Elbrus, Kabardino-Balkaria, Russia). The presentations deal with the contemporary investigations in the field of physics of extreme states of matter. The conference topics are as follows: interaction of intense laser, x-ray and microwave radiation, powerful ion and electron beams with matter; techniques of intense energy fluxes generation; experimental methods of diagnostics of ultrafast processes; shock waves, detonation and combustion physics; equations of state and constitutive equations for matter at high pressures and temperatures; methods of mathematical modeling in physics of extreme states of matter; high-energy astrophysics; low-temperature plasma physics; physical issues of power engineering and technology aspects.

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