

NATURE AND KINETICS OF NON-STATIONARY
LIGHT ABSORPTION INDUCED BY FEMTOSECOND
LASER PULSES IN LEAD PHTHALOCYANINE AND
CHLORO-ALUMINUM-CHLORO-PHTHALOCYANINE
FILMS

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S u m m a r y

Spectra of non-stationary light absorption ΔD induced by femtosecond laser pulses in lead phthalocyanine (PbPc) and chloro-aluminum-chloro-phthalocyanine (ClAlClPc) films have been studied. The 210-nm PbPc and 270-nm ClAlClPc films were thermally evaporated in a 6.5-mPa vacuum onto quartz substrates. “Hot” absorption bands induced by electron transitions from non-zero vibronic bands of state S_1 into the zero vibronic band of state S_m were registered in the spectral interval of 2.04–2.37 eV. The dependences of the normalized kinetics $\Delta D_n(t)$ were non-exponential for both films. The experimental curves $\Delta D_n(t)$ for PbPc and ClAlClPc films are approximated by sums of two and three, respectively, exponents with different relaxation times.