

## BARIC VARIATIONS OF THE OPTICAL PROPERTIES OF ROCHELLE SALT CRYSTALS

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### S u m m a r y

The influence of the uniaxial mechanical stress  $\sigma_m \leq 200$  bar on the spectral (300–800 nm) and temperature (77–320 K) dependences of the refractive indices  $n_i$  ( $i = x, y, z$ ) and the points of the birefringence sign inversion (BSI) of Rochelle salt (RS) crystals in the near infrared range has been studied. The parameters of the electron polarizabilities  $\alpha_i$  and refractions  $R_i$ , as well as the parameters  $\lambda_{0i}$  and  $B_{1i}$  of UV oscillators of mechanically clamped RS crystals, have been calculated. The temperature-spectral-baric diagram of the BSI points of RS crystals has been plotted. The anomalies of the birefringences  $\Delta n_i$  in the vicinity of 200 K and the differences between the dependences  $\Delta n_i(T)$  in nonpolar phases have been observed. These facts testify that the nonpolar phases are not identical, which is assumed to be caused by antipolarization. The baric changes of  $n_i(\sigma)$  have been demonstrated to be due to the variation of the oscillator concentration (by about 30%), the shift of the absorption band edge, the effective band maximum, and the oscillator strength (by about 70%).