RAMAN SPECTRA OF A NUMBER OF LIQUIDS AT HIGH PRESSURES

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Raman spectra of acetonitrile, benzene, chloroform, carbon disulfide at pressure 0,1-1000MPa are studied. Moreover, the benzene was studied also in a solid state up to 130MPa. In most cases with pressure growth the displacement of lines in the range of high frequencies is observed. In all cases with increasing pressure the increase in a half-width of polarized lines is observed, that testifies to reduction of time of a vibration relaxation. The half-width of some depolarized lines with pressure boost are augmented. It can be explained by change of line-width due to the increase in speed of a vibration relaxation. For benzene with transition from liquid into crystalline state the intensity of lines 606cm-1, 992cm-1 decreases, and for 1586cm-1 are augmented. Obtained experimental results are discussed.