

An invention relates to the material sciences, particularly to the acousto-optical monocrystalline materials. The proposed optically single-axis acousto-optic material is the phase of variable composition based on  $\text{TI}_4\text{HI}_6$  compound, which is formed on quasi-binary section of  $\text{TLI-Hgl}_2$  of triple system of  $\text{TL-Hg-L}$ . Additionally it contains also mercury as component, and its composition corresponds to formula  $\text{TI}_{3+x}\text{Hg}_{2-x}\text{I}_{7-x}$ , where  $0.91 < x < 1.05$ .