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Three partially fluorinated ferroelectric liquid crystals (4F4R, 4F5R and 7F3R) with biphenyl benzoate rigid core have been investigated by frequency-dependent dielectric spectroscopy and electro-optic methods. Molecular structures of the compounds differ only by the length of the carbon chain and the number of oligomethylene spacers. In the literature, both temperature-independent f GM and increase of f GM with temperature are reported [64, [77][78][79]. Temperature dependence of Goldstone mode dielectric constant ($\hat{\epsilon}''_{GM}$) of the mixtures is also shown in Figure 3. Dielectric properties of four room temperature ferroelectric and antiferroelectric multi-component liquid crystalline mixtures. Article. Full-text available. <https://www.nist.gov/publications/x-ray-observation-electroclinic-layer-constriction-and-rearrangement-chiral-smetic>. Search NIST. Search. PUBLICATIONS. X-ray Observation of Electroclinic Layer Constriction and Rearrangement in a Chiral Smetic-A Liquid Crystal. Published. July 17, 1995. X-ray crystallography (XRC) is the experimental science determining the atomic and molecular structure of a crystal, in which the crystalline structure causes a beam of incident X-rays to diffract into many specific directions. By measuring the angles and intensities of these diffracted beams, a crystallographer can produce a three-dimensional picture of the density of electrons within the crystal. From this electron density, the mean positions of the atoms in the crystal can be determined, as well as