

Development of Molecular Crystals with Novel Electronic Functions

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Our trials on the development of three types of functional molecular materials will be briefly presented: (1) the dielectric properties of porous the crystals with metal-organic frameworks (MOF) containing guest molecules ($\text{C}_2\text{H}_5\text{OH}$, H_2O), (2) a trial to control the low-temperature electrical properties of organic conductors by introducing π -d interactions using typical magnetic anions (FeCl_4^-), (3) the development of single-component molecular metals on the basis of metal dithiolate complex molecules with extended-TTF ligands.