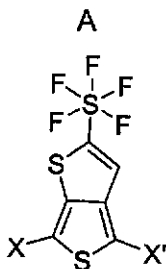


ABSTRACT OF THE DISCLOSURE

PENTAFLUOROSULFANYL-SUBSTITUTED THIENOTHIOPHENE MONOMERS AND CONDUCTING POLYMERS

Thienothiophene monomers having an SF₅ group and conducting oligomers and polymers formed by the polymerization of such monomers and their use as hole injection materials, charge transport materials, or as semiconductors. The compound may be of the formula:



where X and X' are independently H, halogen atoms (e.g., F, Cl, Br, and I), MgCl, MgBr, MgI, Sn(R')₃, where R' comprises C₁₋₆ alkyl or -OC₁₋₆ alkyl, boronic acid, boronic ester, -CH=CHR'' (where R'' comprises H or C₁₋₆ alkyl), -OC₁₋₆ alkyl, -COOC₁₋₆ alkyl, -S-COR''' and -COR''' (where R''' comprises H or C₁₋₆ alkyl), -C≡CH, or polymerizable aromatic rings (such as phenyl, naphthalene, pyrrole, dithiophene, thienothiophene, thiophene and so forth).