Some Organic-Inorganic Hybrid Compounds Based on *iso*-Thiuronium Cations and Lead Halide Anions

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Organic-Inorganic Hybrids, Low-Dimensional Semiconductors, Fluorescence

Using 1-chlorodecane ($C_{10}H_{21}Cl$), benzyl chloride ($C_6H_5CH_2Cl$), a,a'-dichloro-p-xylene ($ClCH_2C_6H_4CH_2Cl$), 4-phenylbenzyl chloride ($C_6H_5C_6H_4CH_2Cl$), 2-bromomethyl-naphthalene ($C_{10}H_7CH_2Br$), 4-bromomethyl-7-methoxycoumarin ($C_{10}H_7O_3CH_2Br$), 2-bromomethyl-anthraquinone ($C_{14}H_7O_2CH_2Br$), 9-chloromethyl-anthracene ($C_{14}H_9CH_2Cl$), thiourea and halides as starting materials, the organic-inorganic hybrid compounds $[C_{10}H_{21}SC(NH_2)_2]_2PbI_4$, $[C_6H_5CH_2SC(NH_2)_2]_4Pb_3I_{10}$, $[(H_2N)_2CSCH_2C_6H_4CH_2SC(NH_2)_2]_{0.5}PbI_3$, $[C_6H_5C_6H_4CH_2SC(NH_2)_2]PbI_3$, $[C_{10}H_7CH_2SC(NH_2)_2]PbI_3$, $[C_{10}H_7O_3CH_2SC(NH_2)_2]PbI_3$, $[C_{14}H_7O_2CH_2SC(NH_2)_2]PbI_3$, $[C_{14}H_9CH_2SC(NH_2)_2]PbI_3$, and $[C_{14}H_9CH_2SC(NH_2)_2]_2PbBr_4$ were prepared and characterized analytically and spectroscopically.