to give the right order of magnitude for the pressure for initiation of electronic transitions.

Mixed valence compounds, in which an ion exists in two valence states at different sites in a crystal, have been widely investigated. Robin and Day[4] have provided an analytical review and classification of these compounds according to the degree of interaction between sites of different valence. In Class I there is little or no interaction between sites. In Class II there exist optical excitations which transfer an electron between sites but there is very little if any thermal transfer. There may also be optical excitations localized on a given site for Class II compounds. Class III compounds involve relatively free transfer of electrons among sites, as in Fe_3O_4 or certain tungsten bronzes. Class II compounds would seem to provide a particularly fruitful field for possible electronic transitions.

In this paper we present high pressure optical studies on Cs_2SbCl_6 with some auxiliary data on $Cs_2Sb_{0.3}Sn_{0.7}Cl_6$ and $(CH_3CH_2NH_3)_2\ Sb_{0.5}Sn_{0.5}Cl_6$. These compounds have been studied extensively by Day and his colleagues[5,6]. The method of synthesis used was taken from their papers. Analyses indicated that all elements were present in very close to the theoretical amounts. The high pressure optical techniques have been previously described[7,8].