

ABSTRACT. We consider directed graphs  $E$  obtained by adding a sink to a fixed graph  $G$ . We associate an element of  $\text{Ext}(C^*(G))$  to each such  $E$ , and show that the classes of two such graphs are equal in  $\text{Ext}(C^*(G))$  if and only if the associated  $C^*$ -algebra of one can be embedded as a full corner in the  $C^*$ -algebra of the other in a particular way. If every loop in  $G$  has an exit, then we are able to use this result to generalize some known classification theorems for  $C^*$ -algebras of graphs with sinks.