

RELATIVELY SPECTRAL HOMOMORPHISMS AND K -INJECTIVITY

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Abstract. Let \mathcal{A} and \mathcal{B} be unital Banach algebras and $\phi: \mathcal{A} \rightarrow \mathcal{B}$ be a unital continuous homomorphism. We prove that if ϕ is relatively spectral (i.e., there is a dense subalgebra X of \mathcal{A} such that $\text{sp}_{\mathcal{B}}(\phi(a)) = \text{sp}_{\mathcal{A}}(a)$ for every $a \in X$) and has dense range, then ϕ induces monomorphisms from $K_i(\mathcal{A})$ to $K_i(\mathcal{B})$, $i = 0, 1$.

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