An associative ring R with unit is left morphic if for every element $a \in R$, there exists some $b \in R$ such that the left annihilators $l_R(a) = Rb$ and $l_R(b) = Ra$. Analogously, we can define right morphic and morphic rings. For a commutative domain R, we prove that the trivial extension $R \ltimes M$ is morphic if and only if R is Bezout and $M \cong \frac{Q}{R}$. This positively answered a question of a recent paper.

XIANDE YANG, Department of Mathematics and Statistics, University of New Brunswick On Morphic Trivial Extension of a Commutative Domain