عنوان مقاله:

On various properties of module Lau product of algebras

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خلاصه مقاله:

Let $\mathcal{A}, \mathcal{B}$, and $\mathcal{X}$ be complex algebras, $\theta : \mathcal{B} \longrightarrow \mathcal{X}$ be an algebra homomorphism, and let $\mathcal{A}$ be an $\mathcal{X}$-bimodule. We define a product on $\mathcal{A} \times \mathcal{B}$ as $(a_1, b_1)(a_2, b_2) = (a_1 a_2 + a_1 \cdot \theta(b_2) + \theta(b_1) \circ a_2, b_1 b_2)$ for all $(a_1, b_1), (a_2, b_2) \in \mathcal{A} \times \mathcal{B}$ and write $\mathcal{A} \times \mathcal{B}$ with this product by $\mathcal{A} \times_\theta \mathcal{B}$. We shall study some basic properties of $\mathcal{A} \times_\theta \mathcal{B}$. When $\mathcal{A}, \mathcal{B}$ and $\mathcal{X}$ are Banach algebras, $\mathcal{A}$ is a Banach $\mathcal{X}$-bimodule, and θ is a continuous homomorphism with the norm at most 1, we determine the ideals of $\mathcal{A} \times_\theta \mathcal{B}$ of a certain type, the Gelfand space of this Banach algebra, and the module multipliers of this Banach algebra.

کلمات کلیدی:

Module Lau - product of Banach algebras, ideals, Gelfand space, module multipliers

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