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**Lia Vaš\*** ([1.vas@usp.edu](mailto:1.vas@usp.edu)), University of the Sciences in Philadelphia, 600 S 43rd St., Philadelphia, PA 19104. *Von-Neumann-algebra-like rings and the answer to a S. K. Berberian's question.*

When von Neumann algebras emerged from operator theory and started attracting the attention of a wider mathematical public, the need to axiomatize at least a part of theory of von Neumann algebras became readily apparent. This resulted in increased interest in the classes of rings and algebras such as Baer \*-rings, Rickart C\*-algebras, and others. As a result, “rings of operators” can be studied without involving sometimes rather complex methods of operator theory.

We shall concentrate on a class of Von-Neumann-algebra-like Baer \*-rings defined by nine axioms. The last two of these nine axioms are particularly strong. We prove that the ninth axiom follows from the first seven and demonstrate that this gives an affirmative answer to the question of S. K. Berberian if a Baer \*-ring  $R$  satisfies the first seven axioms, is the matrix ring  $M_n(R)$  a Baer \*-ring. (Received September 13, 2008)