Novel construction of Loday-type algebras

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P. Kolesnikov and V. Yu. Voronin proved recently that the algorithm proposed by M.R. Bremner, R. Felipe, and J. Sanchez-Ortega provides the varieties of Loday-type algebras according to the construction (K-P construction) devised by P. Kolesnikov and A.P.Pozhidaev. We provide a further construction that generates varieties equivalent to the K-P construction using bimodules over varieties of algebras. Such a construction gives by itself a direct algorithm. It also enables the study of some structure properties of the varieties.

Keywords: Dialgebras, Leibniz algebras, Nonassociative algebras, Bimodules.

MSC: 17A30, 17A32, 17D99.