

1145-VL-1978      **Min Soo Kim\*** ([min.soo.kim@vanderbilt.edu](mailto:min.soo.kim@vanderbilt.edu)), 2301 Vanderbilt, Nashville, TN 37235. *Results in Leibniz  $n$ -algebras from the category  $\mathbf{U}_n(\mathbf{Lb})$ .*

We study the Leibniz  $n$ -algebra  $\mathbf{U}_n(\mathfrak{L})$ , whose multiplication is defined via the bracket of a Leibniz algebra  $\mathfrak{L}$  as  $[x_1, \dots, x_n] = [x_1, [\dots, [x_{n-2}, [x_{n-1}, x_n]] \dots]]$ . We study the simplicity of  $\mathbf{U}_n(\mathfrak{L})$  when  $\mathfrak{L}$  corresponds to a simple Lie algebra. An analogue of Levi's theorem for Leibniz algebras in  $\mathbf{U}_n(\mathbf{Lb})$  is established and it is proven that the Leibniz  $n$ -kernel of  $\mathbf{U}_n(\mathfrak{L})$  for any semisimple Leibniz algebra  $\mathfrak{L}$  is the  $n$ -algebra  $\mathbf{U}_n(\mathfrak{L})$ . (Received September 24, 2018)