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K. R. Goodearl, Department of Mathematics, University of California, Santa Barbara, CA 93106,
and **M. T. Yakimov***, Department of Mathematics, Louisiana State University, Baton Rouge,
LA 70803. *Quantum cluster algebra structures on quantum nilpotent algebras.*

We will describe a result that proves the existence of quantum cluster algebra structures on a very general axiomatically defined class of quantum nilpotent algebras. This has a wide range of applications, among which are a proof of the Berenstein-Zelevinsky conjecture for quantum double Bruhat cells, construction of quantum cluster algebra structures on quantum unipotent groups in full generality, and others. (Received February 18, 2013)