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G. Abrams, B. Greenfeld and Z. Mesyan*, Department of Mathematics, University of Colorado, Colorado Springs, CO 80918, and **K. M. Rangaswamy**. *Leavitt Path Algebras and the Kaplansky Property for Prime Spectra*.

In his 1974 monograph, Kaplansky identified a certain gap property enjoyed by the prime spectra of commutative rings. It is an open question whether all noncommutative rings have this gap property as well. Since, as recently shown, a very wide variety of partially ordered sets can be realized as prime spectra of Leavitt path algebras, it is natural to explore Kaplansky's property in these rings. We show that Kaplansky's gap property holds for the semiprime ideals in Leavitt path algebras, and also for the prime spectra of such algebras that are totally ordered by inclusion. This allows us to completely characterize the totally ordered sets that can be realized as the prime spectra of Leavitt path algebras. (Received January 09, 2018)