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Gary Gruenhage* (garyg@auburn.edu), Department of Mathematics and Statistics, Auburn University, Auburn, AL 36830, and **Strashimir Popvassilev** and **John Porter**. *Monotonic orthocompactness*.

We continue the study of monotonic orthocompactness with respect to interior preserving open refinements (abbreviated MO_o) introduced by Popvassilev and Porter. We show that a GO-space is MO_o provided that it contains a σ -closed-discrete set D such that the complement of its closure is MO_o ; in particular, Alexandrov's double arrow space as well as the lexicographically ordered square are MO_o . Hence the result of Chase and Gruenhage that compact spaces which are monotonically (countably) metacompact must be metrizable does not extend to MO_o . We show that a compact LOTS which is MO_o must be first countable, and a monotonically normal space which is MO_o must be hereditarily paracompact. We also introduce a formally weaker property (A_o) as a useful tool in this study. We show that the one-point compactification of an uncountable discrete space, the Alexandrov duplicate of the unit interval, and stationary subsets of regular uncountable cardinals do not have property (A_o) and hence are not MO_o . (Received September 20, 2021)