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Jenya Soprunova* (esopruno@kent.edu), 800 E SUMMIT ST, KENT, OH 44242. *Lattice size and area of convex bodies*. Preliminary report.

The lattice size of a lattice polygon P was introduced and studied by Schicho, and by Castryck and Cools in relation to the problem of bounding the total degree and the bi-degree of the defining equation of an algebraic curve. We will explain sharp lower bounds on the area of plane convex bodies that involve their lattice size. In particular, we improve bounds established by Arnold, and Bárány and Pach. We also provide a classification of minimal lattice polygons of fixed lattice size. (Received January 14, 2022)