

## A NOTE ON SATURATED MULTIPLICATIVELY CLOSED SETS

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**ABSTRACT.** In this paper, we introduce and study  $\mathcal{H}_Y$ -s.m.c. and strong  $\mathcal{H}_Y$ -s.m.c. sets and give some connections between them and lattice ideals of  $\mathcal{H}_Y$ . Also, we introduce an ideal  $R_S$ , for each subset set  $S$  of a ring  $R$ . We prove a ring  $R$  is a Gelfand ring if and only if  $R_S$  is an intersection of maximal ideals, for every s.m.c. set  $S$  of  $R$ .

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