



**SOCLE-FINE CHARACTERIZATION OF  
SOME INTERESTING RINGS**

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Received July 29, 2013

**Abstract**

A class  $\Omega$  of left modules over a unitary ring is said to be soclefine if for every pair  $M, N$  in  $\Omega$ :  $M$  and  $N$  are isomorphic if and only if their socles are isomorphic. In this note, we will characterize, using the soclefine notion, the noetherian rings, hereditary noetherian rings,  $\mathbb{Q}$ -rings and hereditary  $\mathbb{Q}$ -rings.

**Keywords and phrases:** soclefine notion, the noetherian rings, hereditary noetherian rings,  $\mathbb{Q}$ -rings and hereditary  $\mathbb{Q}$ -rings.

Pioneer Journal of  
Algebra, Number  
Theory and its  
Applications

 Pioneer Scientific  
Publisher