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Synthesis and application of hematite nanoparticles for acid mine drainage treatment

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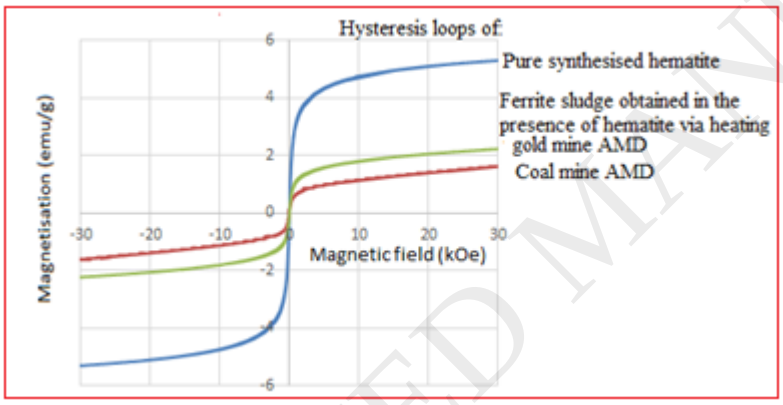
Graphic Abstract



Highlights

- Calcination of mixed iron oxide at 500^{o}C able to form pure α-Fe_2O_3 NPs
- Treatment of AMD in the presence of α-Fe_2O_3 NPs enhance rate of pollutant removal
- Presence of α-Fe_2O_3 in AMD resulted in formation of stable sludge
- Metal recovery is possible when AMD is treated in the presence of α-Fe_2O_3

Abstract