

\$GVRUSWLYH UHPRYDO RI H[FHVV ÀXRULGH LQ GULQNLQJ ZD
\$GVRUEHQW SUHSDUDWLRQ SHUIRUPDQFH DQG VWXG\ RI DG

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Excess uride is highly toxic to humans and has serious detrimental health problems. The purpose of this study was to evaluate the feasible application of silica rich reddish black Mukondeni clay soils as a convenient and cheap technology for the removal of excess uride from ground water. Characterisation was done by XRF, XRD, SEM, BET and FTIR. CEC and PZC were determined using standard methods. Parameters optimized included: contact time, adsorbent dosage, initial concentration, competing ions, pH and temperature. Optimisation experiments were done in batch procedures. The results showed that the optimum conditions for the de uridation of water using silica rich reddish black Mukondeni clay soils are 60 min, 1.5 g, 9 mg/L, 1.5/100 S/L ratios a pH of 2 and a temperature of 25°C. The equilibrium isotherm regression parameter R^2 showed that the Freundlich isotherm (0.95) gave a better fit than the Langmuir isotherm (0.52), and the Dubinin-Radushkevich

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