

NETRADIČNÍ SORBENTY PRO ČIŠTĚNÍ ODPADNÍCH VOD

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ABSTRACT

Janoš P., Rýznarová M., Buchtová H. & Grötschelová S.: **Non-conventional sorbents for wastewater treatment**

Various materials locally available in the North-Bohemian region were tested as non-conventional low-cost sorbents, potentially suitable for wastewater treatment. It was found that fly ashes originating from power plants fuelled with brown coals are capable to retain both acid, as well as basic dyes from aqueous solutions. A special kind of young brown coal called oxyhumolite, as well as sorbents derived from humic acids (iron humate), exhibited a sorption ability towards various classes of chemical pollutants including heavy metals, synthetic dyes, as well as low-polarity organic substances such as chlorophenols.

Key words: wastewater treatment, adsorption, heavy metals, dyes