

## OVERVIEW OF MODERN ANAEROBIC WASTEWATER TREATMENT METHODS

### PRZEGLĄD NOWOCZESNYCH METOD BEZTLENOWEGO OCZYSZCZANIA ŚCIEKÓW

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#### Abstract

The paper presents an overview of modern anaerobic wastewater treatment technologies. Characterised reactors for anaerobic wastewater treatment include UASB, ABR, AMBR, ASBR, AnMBR and EGSB reactors. Comparison with aerobic methods shows that use of anaerobic reactors allows for at least three times reduction of the amount sludge. Analysing the disadvantages and advantages of anaerobic wastewater treatment reactors, it can be concluded that their use is beneficial in wastewater treatment plants with problems of high COD concentrations in incoming wastewater and problems of the amount of sewage sludge produced.

#### Streszczenie

W artykule przedstawiono przegląd nowoczesnych metod beztlenowego oczyszczania ścieków. Scharakteryzowano reaktory UASB, ABR, AMBR, ASBR, AnMBR i EGSB. Następnie porównano z metodami tlenowymi, co pokazało, że zastosowanie reaktorów beztlenowych pozwala na co najmniej trzykrotne zmniejszenie ilości osadu. Analizując wady i zalety beztlenowych reaktorów do oczyszczania ścieków, można stwierdzić, że ich zastosowanie jest korzystne w oczyszczalniach ścieków, w których występują problemy z wysokimi stężeniami ChZT w ściekach napływających oraz problemy z ilością wytwarzanego osadu ściekowego.

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