

Karışık boyalı atıksuların paslanmaz çelik ve grafit elektrotlar kullanarak peroksi-koagülasyon yöntemiyle arıtılması

Treatment of mixed dye wastewater by peroxy-coagulation using stainless steel and graphite electrodes

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Düzeltilme

Gümüşhane Üniversitesi Fen Bilimleri Dergisi'nin 13. cilt, 2. sayısında yayımlanan "Gümüş, D. (2023). Karışık boyalı atıksuların paslanmaz çelik ve grafit elektrotlar kullanarak peroksi-koagülasyon yöntemiyle arıtılması. Gümüşhane Üniversitesi Fen Bilimleri Dergisi, 13(2), 491-499. <https://doi.org/10.17714/gumusfenbil.1219165>" referanslı makalede dizgi süreci sırasında meydana gelen editöryal bir hata nedeniyle İngilizce özet bölümünde sehven farklı bir metnin yayımlandığı tespit edilmiştir. Söz konusu hata, makalenin bilimsel içeriğini, sonuçlarını veya değerlendirmelerini etkilememekte olup yalnızca İngilizce özet bölümüne ilişkindir. Bu editöryal hatadan dolayı yazarımızdan ve okuyucularımızdan özür dileriz. İlgili makalenin doğru İngilizce özeti, bu düzeltme metni ile birlikte aşağıda sunulmaktadır.

Erratum

In the article by Gümüş, D. (2023) entitled "*Treatment of mixed dye wastewater by peroxy-coagulation using stainless steel and graphite electrodes*", published in *Gümüşhane University Journal of Science and Technology*, Volume 13, Issue 2, pages 491-499 (<https://doi.org/10.17714/gumusfenbil.1219165>), it has been identified that, due to an editorial error occurred during the typesetting process, an incorrect English abstract belonging to a different manuscript was inadvertently published. This error does not affect the scientific content, results, or conclusions of the article and is limited solely to the English abstract section. We sincerely apologize to the author and our readers for this editorial mistake. The correct English abstract of the article is provided below as part of this erratum.

Abstract

Most of the dyed wastewater is toxic and carcinogenic to living things. Due to their complex structure, they are very difficult to treat with traditional purification methods. Various electrochemical methods have been developed to treat dyed wastewater. In this study, color and COD removal from synthetic wastewater formed by mixed dyes was investigated using peroxy-coagulation method. Stainless steel and graphite electrodes were used as anode and cathode, respectively. The effects of basic operating parameters such as initial pH, current density and electrolysis time were investigated. Taguchi experimental design method (L9) orthogonal array (OA) was applied to examine the effects of the parameters on the electrochemical system. The performance of the system, Signal-to-noise (S/N) ratio (the larger the better) and analysis of variance (ANOVA) were evaluated to compare the relative magnitude of the effect of factors on the response value. Optimum operating conditions were found as initial pH 3, current 100 mA and reaction time 60 minutes. Under these conditions, over 99% color removal and 95% COD removal were achieved, and the total energy consumption was calculated as approximately 25 kWh/kgCOD.

Keywords: Dyed wastewater, Stainless steel anode, Peroxy coagulation

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