

# Comprehensive analysis of photocatalytic and photoreactor challenges in photocatalytic wastewater treatment: A case study with ZnO photocatalyst

Soran University (SUN)



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Faculty of Engineering

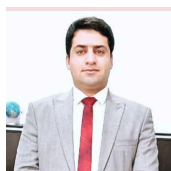
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conditions, and minimal adsorption of photons by photocatalysts. This review article aims to contribute to enhancing the photocatalytic wastewater treatment efficiency in photodegradation of pollutants and scaling up its application as a primary method for wastewater treatment. The review indicates the influential role of photoreactor configuration on light distribution, the delivery of photons to the photocatalyst, and the generation of active species, thereby impacting process efficiency. Additionally, it reveals the impact of the physicochemical properties of the photocatalyst on the kinetics and mass transfer of the photocatalytic reaction.



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## About Soran University

[Soran University \(SUN\)](#) is located in the city of Soran, which is about a two-hour drive north-east of [Erbil](#) (Arbil, Hewlér), the capital of the [Kurdistan Region](#) of Iraq (KRIQ). The city is flanked by the famous Korek, Zozik, Henderén, and Biradost mountains. The medieval mountain village of [Rewandiz \(Rawanduz, ره‌واندز\)](#) is a stone-cast away, and the two cities share this lovely, harmonious upland. While waiting for its green, environmentally friendly building to be erected on a hilltop overlooking the cities of Soran and Rewandiz, its existing city campus has been meticulously set out to accommodate the lovely natural landscape. The new campus will be the first of its type, being walkable, balanced, powered by renewable energy, and compliant with all international environmental regulations. There are 5 Faculties in [SUN](#); [Faculty of Arts](#) (FAAR), [Faculty of Science](#) (FSCN), [Faculty of Education](#) (FEDU), [Faculty of Law](#), Political Science, and Management (FLAW/PSM), and [Faculty of Engineering](#) (FENG). Also, there is SUN research centre. Moreover, at SUN, there is a Language Center. SUN signed many Memoranda of Understandings (MoU) with many International Universities,

## How to get here

Soran University (SUN) is located in the heart of the city of Soran. The main city campus is easily found on Google Maps for direction.