

High-efficiency photovoltaic containerized type for wastewater treatment plants





Overview

Can photovoltaic conversion of solar energy be used in wastewater treatment?

The application of photovoltaic conversion of solar energy in wastewater treatment is described, and the research progress of photovoltaic conversion in electrooxidation system, reverse osmosis process, electrocoagulation process, aeration equipment, electroflocculation technology and fenton technology is reviewed.

Can solar PV be used in wastewater treatment plants?

Strazzabosco et al. assessed the status of solar PV in WWTPs of various sizes in California, USA, and determined the potential of solar PV in the wastewater industry. Colacicco et al. proposed a solar PV design method for WWTPs to optimize the energy consumption of oxidation tanks in WWTPs.

What is the PV potential of a wastewater treatment plant (WWTP)?

The PV potential of a WWTP is correlated with its planned wastewater treatment capacity. The number of wastewater treatment plants (WWTPs) in China is fast growing as the country's urbanization accelerates. WWTPs, part of the high-energy-consumption industry, must use a lot of energy in wastewater treatment.

What is the PV potential of urban wastewater treatment plants in China?

The main conclusions of the study are as follows: The PV potential of China's urban WWTPs can reach 5.6 GW. The total PV potential of the 31 WWTPs with different wastewater treatment capacities in various provinces of China is 465 MW. The PV potential of a WWTP is highly positively correlated with its planned wastewater treatment capacity.



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