

The combination of fluorescence excitation-emission matrices (EEM), parallel factor analysis (PARAFAC) and self-organizing maps (SOM) is shown to be a powerful tool in the ...

Landfill leachate is a very complex liquid that can contains high phenolic, ammonia nitrogen ($\text{NH}_3\text{-N}$), biodegradable, non-biodegradable phenolic concentrations and may ...

Solar radiation allows to produce activated carbons employing renewable energy. K_2CO_3 is an excellent environmentally friendly activating agent to improve porosity. Neutral ...

The physico-chemical process is widely used to remove the recalcitrant organic compounds and nitrogen present in higher concentrations in landfill leachate (Brasil et al., ...

This paper aims to review the various agricultural wastes used as precursors to produce activated carbon to treat landfill leachate. Moreover, the key advancement of ...

Besides, considering the strong adsorption of powder activated carbon (PAC), the residual coagulants can be removed from the landfill leachate. Li et al. (2010) discovered that ...

The obtained test results confirmed the validity of using impregnated activated carbon to remove hydrogen sulfide from landfill gas and its high adsorption efficiency, which can consequently result in reliable operation ...

Results have shown that the hybridization of LFG powered gas turbine with solar energy in a combined cycle arrangement made it possible to more than double system power ...

Sanitary landfill leachates usually have characteristics that depend on the region where they are generated and according to the age of the landfill, which is why a unique treatment for their sanitation has not been found. ...

This landfilling process has one disadvantage of generating a concentrated effluent, the leachate, which may exhibit acute to chronic toxicity (Lü et al., 2008, Renou et al., 2008, ...

Municipal solid waste leachate, a kind of wastewater, can severely damage the environment and contaminate the groundwater because of its high organic matter and toxic ...

Agave Angustifolia leaves, an agro-industrial waste from alcoholic beverages manufacture, were used as a lignocellulosic precursor to produce activated carbons for neutral ...

Advanced oxidation processes (AOPs) effectively treat landfill leachate, but high energy demands and capital costs mean that further research is needed to improve AOP ...

The authors used a solar pyrolysis approach where the reaction mixture was pyrolyzed in a solar furnace at high temperatures (up to 950 °C), using concentrated solar ...

A study by Amjed et al., [5] showed that the solar-based pyrolysis process, using concentrated solar power (CSP) and Thermal Energy Storage (TES), achieved over 90 % ...

Heterogeneous composite wastes from landfills were evaluated as precursors for the generation of activated carbon (AC). A single-step chemical activation process was applied involving...

China is one of the fastest growing countries in the world; this growth has resulted in a burgeoning waste management problem (Themelis and Mussche, 2013) in the USW ...

A combined technology between Iron-carbon micro-electrolysis (ICME) and H₂O₂ using scrap iron and granular active carbon was extensively investigated and optimized (three ...

Landfill leachate poses significant risks to the environment and human health if not managed properly due to its potential to contaminate soil, ground, and surface waters. ...

The study systematically reviewed 38 peer-reviewed papers published between 2010 and 2021 on using solar energy for landfill leachate treatment following the PRISMA ...

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Activated carbon from landfill using concentrated solar power

