عنوان مقاله:

Pyrolysis of microalgae, a new source for biofuel production

محل انتشار:

ششمین همایش بین المللی علوم و تکنولوژی با رویکرد توسعه پایدار (سال: 1399)

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خلاصه مقاله:

Biofuels inferred from biomass with zero net Dioxide Carbon emanation appear to be a promising elective for fossil fuels. Algal biomasses are promising sources of lipids, proteins, and carbohydrates which can change over them into vitality within the distinctive shapes of fuel depend on the sort of transformation handle. Transesterification, anaerobic digestion, fermentation, thermochemical conversion, and biophotolysis is can convert algal biomass into biodiesel, bio-methane, bioethanol, bio-oil, and hydrogen biofuels respectively. Among created pathways for creating biofuel from algal biomass, a thermochemical change particularly pyrolysis is one of the foremost considered and examined methods in recent years. The aim of this article is to present a review of biofuel production from algal biomasses (micro- and macro-algae) through pyrolysis processes. It was found that pyrolysis processes are potential routes to convert algal biomass to solid, liquid, and gaseous biofuels and they can be a good substitute for unsustainable fossil fuels to meet the growing global energy demand. Furthermore, in spite of the broad investigation of pyrolysis of algal biomass which can give promising data for utilizing in commercial applications, creating algal biofuel from pyrolysis isn't commercially feasible yet and must more in-depth ponders.

کلمات کلیدی:

Biofuel; Algae; Pyrolysis; Macroalgae; Microalgae