

## عنوان مقاله:

Investigation of bio-oil production from algae by pyrolysis and its reactors

## محل انتشار:

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

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## خلاصه مقاله:

Commonly, Algae biomass is inconvenient to local ecosystems and is not economically feasible in all scenarios. Algae have stood out because of a few points of interest, one of which is the ability to catch CO<sub>2</sub>. Another satisfiable argument for the usage of these kinds is that some have a quicker development rate and can develop in an aquatic medium. Thus, it might be possible for Macro-algae and microalgae to be profitably used as a suitable feedstock for renewable energy, biofuels, and other products like biodiesel, bio-methane, and bioethanol. Biofuels, for instance, can be used to reduce emissions and improve energy security. To convert algae to bio-oil, thermochemical methods are recently being used as a modern approach. To achieve this, a process called Pyrolysis is applied to the biomass which would gradually change this into bio-oil, gas, and char. Pyrolysis is broadly utilized for the treatment of waste biomass materials and the production of bio-oil due to its sensible cost and comparably easy operation. To realize such operations, different sorts of pyrolysis reactors have been used for bio-oil production, such as fixed-bed and bubbling fluidized-bed reactors. In this study, we review processing units of pyrolysis as well as its existing different types. We will also try to shed a light on two particular types of reactor models for the conversion of algae biomass

## کلمات کلیدی:

Energy, Biomass, Pyrolysis, fixed-bed reactor, fluidized-bed reactor

## لینک ثابت مقاله در پایگاه سیویلیکا:

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