Microbial conversion of methane to value added products: current development, challenges and perspectives.

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ABSTRACT

In this review, the depth analysis of particular aspects of natural gas and their value-added product by proceeding it into an eco-friendly final product in which the end product as considered biodegradable or reusable based on the utilization of bio-components in the desired product. In terms of Natural gas, globally 63% of methane induced from burning fossil fuel to generate electricity, and now the prominent use of methane in energy source for transportation which has been explored for biofuels. On the other side, the mass production of plastics over the past few years has become widely used in packaging, electronic devices, household appliances because of their low cost and versatility although plastics lead to release a variety of toxic chemicals during they degrade. But Some specific conversion sectors have the potential to mitigate methane emissions from the environment and replace it with sustainable environment. In this review, the aim is to provide analysis regarding the techniques and also using sources from microorganisms to quickly ascertained the development in the production of bio-polymers resulting in bio-plastics. Furthermore, making any polymer requires some strategies to explore key factors including the challenges of bioprocessing units and their versatility.

Keywords: Natural gas, bio-polymers, biofuels.



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