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Short Communication

Recent Advances in Green Energy Production from Microalgae

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Opinion

Mechanics and materials was my basic training where we focused on the development of new materials with attractive physicochemical properties. We are thus developing composite materials which allow almost infinite freedom of assembly. This makes it possible to create 'à la carte' materials with desired properties depending on the product manufactured. We studied the mechanical, chemical, electrical, thermal and fatigue characteristics as well as the assembly methods of composite materials. Soon after, I focused on smart materials, including piezoelectric and thermoelectric materials. On this subject, I have published articles which show the influence of temperature on piezoelectric materials and stabilization techniques [1-4]. But as the demand for energy increases considerably around the world according to recent studies [5-10], I am determined to contribute to its creation and improvement. Furthermore, it is all the more important to find renewable energy sources that can be exploited sustainably according to the literature [11]. But curiously the current use of these renewable energies is far from satisfactory [12,13].

Currently a permanent teacher in an engineering school for the transformation of natural resources into value-added products, I am interested in the extraction of biofuel from microalgae. According to recent research, the production of biofuels from algae offers very promising opportunities [14-19]. However, further research is needed to have products that meet the criteria for biofuel production as defined by the ISO 13065 standard [20,21].

Faced with these crucial and pressing needs for green energy, and more particularly in the extraction of biofuel from microalgae, I propose some research themes:

a. Optimal production techniques for biofuel using microalgae.
b. Impact of biofuel from algae on the environment.

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