MICROALGAE TECHNOLOGY: A REVIEW OF ITS DEVELOPMENT IN SOUTH AMERICAN COUNTRIES

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A review encompassing the contributions to the study of microalgae from the countries in South America, the lines of research being consolidated, and new and potential research that can provide solutions to global problems.

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Microalgae technology is an emerging field with a range of applications; In fields that can contribute to sustainability in a global context, not only do microalgae participate as autotrophic and photosynthetic unicellular organisms that allow for the collection of CO_2 , but are also used as raw material for processes, such as energy production, waste management and soil bioremediation, among others. These processes work in tandem with their ability, inherent to their physiological development, to produce lipids, carbohydrates, and proteins of significant technological interest [1].

Given the availability of microalgae and the benefits that can be obtained from them, researchers from all over the world have consolidated their fields of action to further develop their applications from different approaches. Such is the case of South American universities and research centers, which are making their contribution to work with this technology, thus increasing the feasibility of processes in terms of their potential environmental, commercial, and social impact worldwide. For this reason, it is important to know who partakes in these research networks, as well as the fields of action and the applications where microalgae are being utilized [2].

In conclusion, analyzing the contributions in the study of microalgae from the countries in South America provides information that allows us to assess their strengths and weaknesses in the region, and propose strategies that contribute to the development of science and the application of new technologies.

- 1. Lloyd, C., Tan, K.H., Lim, K.L. Identification of microalgae cultured in Bold's Basal medium from freshwater samples, from a high-rise city. Sci Rep. (2021).
- 2. Saleh M., Firoz A. Some Promising Microalgal Species for Commercial Applications: A review, Energy Procedia, Volume 110, 510-517 (2017).