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**LUMINESCENT COMPOUNDS:
GINGEROL, QUININE SULPHATE
AND FLUORESCIEIN, A SHORT
REVIEW**

**COMPUESTOS LUMINISCENTES:
GINGEROL, SULFATO DE QUININA Y
FLUORESCIEINA,
REVISIÓN ABREVIADA**

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Short review

Peer-reviewed

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Keywords: *Luminescence, Isolation, Zingiber officinale, Gingerol, Synthesis, Quinine Sulphate, Fluorescein.*

ABSTRACT

Certain compounds have luminescent properties. When they are submitted to ultraviolet radiation in a certain wavelength range, electrons get excited passing thus from a fundamental energy state to a higher one. When electrons return to their basic state, they emit the excess energy under the form of radiation in the visible spectrum (390 to 750 nm). We have isolated from their natural sources or synthesized three compounds of such kind, namely gingerol, quinine sulphate and fluorescein, and we have established their yields and observed their luminescent properties. A brief bibliography is provided.

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**THE CONSERVATION OF THE
AGRICULTURAL USE BACTERIA
AZOSPIRILLUM BRASILENSE BY
MICROENCAPSULATION**

**CONSERVACIÓN POR
MICROENCAPSULACIÓN DE
BACTERIAS DE USO AGRÍCOLA:
AZOSPIRILLUM BRASILENSE**

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Full original article

Peer-reviewed

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Keywords: *Microparticles alginate polymer conservation, recuperation.*

ABSTRACT

Microencapsulation is performed to protect or provide a cover for substances that are easily alterable, with the objective to mask flavors, store chemicals and transform products of traditional use into smart products, capable of changing under environmental conditions. In this work the process of encapsulation of the bacterium *Azospirillum brasilense* was evaluated. Different concentrations of sodium alginate and calcium chloride were used to achieve better yields, stability and viability. The best conditions to form a microcapsule were the combination of 2% alginate and 1M calcium chloride. Five years later the encapsulated bacteria underwent release, used the LB medium and germinating maize seeds. Bacteria were found viable, suggesting that the encapsulation of bacteria, or other microorganisms that associate with plants, as serving as agricultural inoculants.

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