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*Affiliation (University name, Faculty, or Institute name. Country).*

**Luis Alcides Brandini De Boni \***

*University name, Faculty, or Institute name. Country.*

**Eduardo Goldani**

*University name, Faculty, or Institute name. Country*

**João Castilhos**

*University name, Faculty or Institute name, Department name. Country*

Place the authors' names as examples above. Full name of all authors in BOLD (Letter font: Arial; size: 11, First letter in Capital). An asterisk must indicate the corresponding author (\*)

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**RESUMO**

**The editors can provide the translation of the ABSTRACT to Portuguese for those who Portuguese is not the first language**

**Introdução:** Introdução e descrição do problema; identifica a necessidade da pergunta de pesquisa. Em pesquisas rigorosas, pode incluir uma hipótese que seja apoiada ou refutada em conformidade. Qual é o assunto e a relevância do estudo? O que pretende demonstrar ou descrever? Isso deve ser escrito de forma sucinta; pode ser necessário fazer uma breve referência a um contexto. Qual é a importância da pesquisa? Por que um leitor estaria interessado na obra maior? O pano de fundo (introdução) deve indicar claramente o problema, a razão para fazer o trabalho, as hipóteses ou previsões teóricas em consideração e o pano de fundo essencial. **Objetivo:** a finalidade do trabalho (objetivo); qual é o objetivo do estudo? As perguntas exatas abordadas pelo artigo; o objetivo principal da revisão. Comece com uma declaração clara e concisa do objetivo preciso ou questão abordada no artigo. Se mais de 1 objetivo for abordado, o objetivo principal deve ser indicado e apenas os objetivos secundários principais, declarados. Se uma hipótese a priori foi testada, ela deve ser declarada. Exemplo: Este estudo teve como objetivo ... ou ... O objetivo deste estudo foi ...**Métodos:** o desenho básico do estudo; informar a duração do acompanhamento, se houver; explicar os métodos para que outros possam replicar o estudo. Como os objetivos são alcançados? Incluir o (s) método (s) principal (ais) utilizado (s) para a pesquisa; coleta de dados - descreve o processo e aponta possíveis omissões; qual é o método de estudo? Apresente a metodologia usada, a forma de coleta de dados e amostra. Se for um ensaio teórico, qual a abordagem adotada. Forneça detalhes suficientes ao leitor para compreender como o estudo foi realizado. **Resultados e Discussão:** O objetivo de uma seção de Resultados e Discussão é apresentar os principais resultados de sua pesquisa. Quais são os principais resultados? Os principais resultados do estudo devem ser fornecidos e quantificados, incluindo intervalos de confiança ou valores P. Para estudos comparativos, os intervalos de confiança devem estar relacionados às diferenças entre os grupos. Os resultados devem ser apresentados de forma concisa. Aponte a importância dos resultados e coloque-os no contexto de outro trabalho e base teórica. É importante planejar esta seção com cuidado, pois pode conter uma grande quantidade de dados científicos que precisam ser apresentados de forma clara e concisa. **Conclusões:** Fornecer apenas conclusões diretamente suportadas pelos resultados; evitar especulação e generalização excessiva. Indique se estudo adicional é necessário; Dê igual ênfase a descobertas positivas e negativas de igual mérito científico; aponta coisas que podem ter sido esquecidas e sugere áreas para pesquisas futuras; resumo de sua pesquisa. Alguns pesquisadores também incluem: contribuição de conhecimento, limitação de pesquisa e recomendação de pesquisa futura na seção de conclusões.

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**ABSTRACT**

**Background:** Introduction and statement of the problem; identifies the need for the research question. Rigorous research may include a hypothesis that is supported or refuted accordingly. What is the subject and relevance of the study? What does it intend to demonstrate or describe? This should be written succinctly; it might be eventually necessary to refer briefly to a context. What is the importance of the research? Why would a reader be interested in the larger work? The background (introduction) must clearly state the problem, the reason for doing the work, the hypotheses or theoretical predictions under consideration, and the essential background. **Aim:** the purpose of the work (objective); What is the aim of the study? The exact question(s) addressed by the article; the primary objective of the review. Begin with a clear, concise statement of the precise objective or question addressed in the manuscript. If more than 1 objective is addressed, the main objective should be indicated, and only key secondary objectives stated. If an a priori hypothesis was tested, it should be stated. Example: This study aimed to...or...The purpose of this study was to...**Methods:** the basic design of the study; state the duration of follow-up, if any; explains the methods so others can replicate the study. How are the objectives achieved? Include the main method(s) used for the research; data collection - describes the process and points out potential omissions; What is the method of study? Show the methodology used, the form of data, and sample collection. If it is a theoretical essay, what is the approach adopted. Provide sufficient details to the reader to understand how the study was performed. **Results and Discussion**: The purpose of a Results and Discussion section is to present the key results of your research. What are the main results? The main outcomes of the study should be provided and quantified, including confidence intervals or P values. For comparative studies, confidence intervals should relate to the differences between groups. Results should be presented concisely. Point out the significance of the results, and place the results in the context of other work and theoretical background. It is important to plan this section carefully as it may contain a large amount of scientific data that needs to be presented in a clear and concise fashion. **Conclusions:** Provide only conclusions directly supported by the results; avoid speculation and overgeneralization. Indicate whether additional study is required; Give equal emphasis to positive and negative findings of equal scientific merit; point out things that may have been overlooked, and suggests areas for further research. Summary of your research. Some researchers also include knowledge contribution, research limitation, and future research recommendations in the conclusions section.

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**1. Introduction: (Arial, 12, bold, left alignment, capital letters) (single space)**

**The spacing between paragraphs should be 0pt, then 6pt, and single spacing between lines.**

The introduction must clearly state the problem, the reason for doing the work, the hypotheses or theoretical predictions under consideration, and the essential background. It should not contain equations or mathematical notation. A brief survey of the relevant literature so that a non-specialist reader could understand the significance of the presented results.

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Examples: Grasslands are regarded as important foraging areas for many insectivores in Europe, such as birds (Vichery, 2001; Barnet *et al.*, 2004), bats (Güttinger, 1997), or amphibians and reptiles (Langton and Burton, 1997). However, the knowledge of the overall arthropod availability in such grasslands is scarce, since many studies about insect populations concentrate on extensive grasslands on poor, dry, or wet soils include only a few species or systematic groups (Ellgsen *et al.*, 1997; Gibson *et al.*, 1992; Hänsel and Plachter, 2004; Manhart *et al.*, 2004; Kruess and Tscharntke, 2002a, b; Wingerden *et al*., 1992; Sjödin, 2007a, b; Perner *et al*., 2005).

Carbon dioxide produced by the combustion of biodiesel can be recycled by photosynthesis, thereby minimizing the impact of biodiesel combustion on the greenhouse effect (Körbitz, 1999; Agarwal and Das, 2001). Biodiesel has a relatively high flash point (150°C), which makes it less volatile and safer to transport or handle than petroleum diesel (Krawczyk, 1996).

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**2. METHODOLOGY or MATERIALS AND METHODS OR DEVELOPMENT OR BACKGROUND: (Arial, 12, bold, left alignment, capital letters)**

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Provide sufficient details to permit repetition of the experimental work. The technical description of methods should be given when such methods are new.

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***2.1.1 Subheadings*** (Arial, 10, bold and italic, left alignment) (single space)

*2.1.1.1 Subheadings* (Arial, 10, italic, left alignment) (single space)

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(single space)

3x3 + 2x2 + 5x +6 (Eq. 1)

(single space)

**3. RESULTS AND DISCUSSION OR FINDINGS: (Arial, 12, bold, left alignment, capital letters)**

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Results should be presented concisely. Also, point out the significance of the results and place the results in the context of other work and theoretical background.

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***Table 1*.** *Example of a table*

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|  |  |
| --- | --- |
| **Ranking (BOLD)** | **Country (BOLD)** |
| 1 | Saudi Arabia |
| 2 | Iran |
| 3 | Iraq |
| 8 | Venezuela |
| 15 | Brazil |

Reference: Energy Information Administration - EIA - Official Energy Statistics from the U.S. Government. **International Oil and Natural Gas Reserves as of December 31, 2005**. (if necessary, the reference of the table or figure should be written like this example, below the table (or figure), Arial, font size 10, central alignment)

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Summarize the data discussed in the Results and Discussion showing the relevance of the work and how different it is from other researches. Also, point out the benefits and improvements that can be observed to develop new science standards that can change something in the related field.

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Please, present all possible limitations faced in the study which might significantly affect the research outcome. If not applicable, write “No limitations were known at the time of the study”.

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1. De Boni, L. A. B; Lima da Silva, I. N; Pereira, M. M. (2013). The production of biodiesel monitored with real-time laser spectroscopy: confirmation of the technique with proton nuclear magnetic resonance. *Southern Brazilian Journal of Chemistry*, *21*, 19-30.
2. De Boni, L. A. B; Lima da Silva, I. N. (2011). Monitoring the transesterification reaction with laser spectroscopy. *Fuel Processing Technology*, *92*, 1001-1006.
3. Cervelin, A.; De Boni, L. A. B. (2019). Construindo um espectrofotômetro com materiais reciclados. *Periódico Tchê Química*, *32*(16), 1029-1033.

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***Table 2.*** *Example of a table that exceeds 8.5 cm (extrapolated the measurements of the two columns format), so it is placed at the end of the article. Source: the author*

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|  |  |  |  |  |  |  |  |
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| **INDEX** | **Name** | **(%)** | **Size** | **parameters** | | | |
|  |  |  |  | a | b | c | β |
| 34 | Sodium Chloride | 62,5 | 53.8 nm | 2.40 | 3.88 | 11.3 | 138.1° |
| 35 | Potassium Carbonate | 4,60 | 41.0 nm | 15.9 | 3.78 | 7.04 | 104.3° |
| 36 | Lithium Sulfite | 28,4 | 29.1 nm | 5.94 | 4.69 | 8.67 | 117.0° |
| 37 | Sulfuric acid | 9,03 | 36.2 nm | 16.5 | 5.65 | 16.7 | 103.2° |

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