Trends in Scientific Research on the Upcycling of Textile Waste: A Bibliometric Review

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Abstract:
The textile sector is also responsible for environmental impacts stemming from high consumption of natural resources and waste generation, making upcycling a promising strategy for the circular economy. In this context, the objective of this study was to analyze the evolution of scientific research on upcycling of textile industry waste through a bibliometric review. The research was conducted in the Scopus database using the terms "upcycling" AND "textile" OR "textile industry" in titles, abstracts, and keywords. Articles published between 2020 and 2026 in journals were considered. After applying the eligibility criteria, 147 scientific articles were selected for analysis. The results showed a significant increase in publications over the period, particularly after 2023 and peaking in 2025, demonstrating the growing relevance of the topic in the international literature. The most productive authors were Aji P. Mathew and Maria Ximena Ruiz-Caldas, while the most prominent institutions were Stockholms Universitet and Aalto University. In terms of geographic distribution, the United Kingdom, China, and the United States accounted for the largest number of publications. The results indicate that the upcycling of textile waste is a growing field of research, driven by the search for sustainable solutions for the fashion industry and the transition to more circular production models.

Keywords:
Upcycling, Textile waste, Circular economy, Bibliometrics.