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Global Research Trends on Drought Stress and Nanoparticles (2012–2025): A Bibliometric Analysis

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ABSTRACT

Current bibliometric performance and research trends are revealed for the topic of drought stress and nanoparticle (NPs) between 2012 and 2025 almost 13 years data that including 647 articles retrieved from 289 sources, such as journals, books, and proceedings. This analysis shows a high annual growth rate of 37.53%, average document age of 2.58 years and citation per publication average of 30.64 which reflect continuous interest and impact on the academic community on drought stress and NPs. The literature was contributed by 2709 authors with high co-authorship rate of 5.65 authors per document and of 40.49% of studies had international collaboration, illustrating the global concern and joint scientific efforts in response to drought stress challenges. The dataset consists of 397 articles, reviews, and other paper types. From "Keywords Plus," 2,753 terms and 1,486 authors' original keywords were analyzed, indicating the thematic richness of the field. The tens of thousands of references (50,914) also highlight the richness of the literature on drought stress in plant science, agriculture, and environmental resilience in general.

Keywords: bibliometric**,** drought, nanotechnology, nanoparticles, plant science

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