

## **Corporate entry into nanotechnology: A 20-year perspective on nano-industry publication and patenting**

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### ***Abstract***

Corporate entry into nanotechnology is investigated through analyzing publishing and patenting by corporations globally and within the US. From 2000 to 2019, we identify and examine more than 53,000 nanotechnology publications indexed in the Web of Science with at least one corporate coauthor and 170,000 global nanotechnology patent families with corporate assignees from PATSTAT. US authors account for the largest share of corporate nanotechnology publications (38%), followed by those from Japan and Germany. US corporate publications also have the highest average citations per publication of any of the largest publishing countries. China has the largest share of nanotechnology patents, followed by Japan and the US. We introduce the concept of corporate entry, which refers to corporations that have explicitly entered into research and innovation in the nanotechnology domain, as evidenced by a minimum threshold of nanotechnology publications and/or patents -- in this case, three publications or three patent families. More than 6,700 Chinese corporations meet this definition, followed by nearly 2,000 US corporations. Corporate entry into nanotechnology in the US is most prominent on the California coast, on the US East Coast, and in Texas, with emergent locations in the Midwest and South. Trends and policy insights from the analysis are considered.