Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

Jinxing Li

Michigan State University, Stanford University, University of California San Diego

Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

18	18	2	55
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

72.2% independent of 18 classified citing papers

Citation type	Count
Independent	13
Self-citation	1
Co-author	4
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher established a foundational framework for biomedical micro/nanorobots, addressing delivery, surgery, sensing, and detoxification, as evidenced by a seminal 2017 paper with 1679 citations.

The researcher's primary contribution is the conceptualization of a comprehensive framework for biomedical micro/nanorobots, specifically focusing on their roles in delivery, surgery, sensing, and detoxification. This work is anchored by a seminal 2017 publication that serves as the core reference for this line of inquiry.

This line of work appears to address the need for a unified perspective on the multifunctional applications of micro/nanorobots in medicine. By synthesizing these distinct operational modes into a single review, the researcher provided a critical roadmap for the field, distinguishing this work from earlier, more fragmented studies.

The significance of this contribution is demonstrated by its substantial uptake in the scientific community, with the core paper accumulating 1679 citations. Furthermore, the high degree of citation independence, with 88.9% of classified citations originating from independent researchers, suggests that this work has become a standard reference point for scholars outside the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

Micro/nanorobots for biomedicine: Delivery, surgery, sensing, and detoxification

2017 · 1,679 citations (GS)

Field-normalised: 1,293 Semantic Scholar citations place it in the top 1% of Engineering papers from 2017 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Magnetically Driven Micro and Nanorobots (2021)	ETH Zurich, The Chinese University of Hong Kong, University of Chemistry and Technology Prague	China, Czech Republic, Switzerland	—
2	Magnetically driven biohybrid blood hydrogel fibres for personalized intracranial tumour therapy under fluoroscopic tracking (2025)	Shenzhen Institutes of Advanced Technology, Shenzhen University, The Chinese University of Hong Kong	China	—
3	Imaging-guided bioresorbable acoustic hydrogel microrobots (2024)	California Institute of Technology, National University of Singapore, Santa Clara University	Singapore, United States	—
4	Delivering drugs with microrobots (2023)	ETH Zürich	Switzerland	—
5	The grand challenges of Science Robotics (2018)	Boston Children's Hospital, Imperial College London, National Academy of Sciences	Germany, United Kingdom, United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher established a foundational technology roadmap for flexible sensors, providing a strategic framework that has been widely adopted by independent scholars in the field.

The researcher's contribution centers on the publication of a seminal core paper titled 'Technology roadmap for flexible sensors' in 2023. This work stands alone as the primary vehicle for this specific line of inquiry, with no follow-up papers by the same researcher building directly upon it in the provided dataset. The title suggests the work provides a comprehensive strategic outline or planning framework for the development and integration of flexible sensor technologies.

This line of work appears to address the need for structured guidance in a rapidly evolving technological domain. By offering a roadmap, the researcher likely provided a novel synthesis of existing knowledge and future directions, filling a gap in strategic planning for flexible sensor applications. The absence of follow-up papers by the researcher indicates that this contribution serves as a standalone reference point rather than the start of a long-term experimental series by the author.

The significance of this work is evidenced by its substantial citation count of 1275, indicating it is highly cited within the academic community. Furthermore, analysis of citing papers reveals that 88.9% of citations originate from independent researchers, rather than the author or their immediate collaborators. This high degree of independent uptake suggests the roadmap has been widely recognized and utilized by the broader scientific community as a key resource for advancing flexible sensor technology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Technology roadmap for flexible sensors

2023 · 1,275 citations (GS)

Field-normalised: 1,033 Semantic Scholar citations place it in the top 1% of Engineering papers from 2023 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Artificial Intelligence Meets Flexible Sensors: Emerging Smart Flexible Sensing Systems Driven by Machine Learning and Artificial Synapses (2023)	Taiyuan University of Technology, Tsinghua University	China	—
2	Materials-Driven Soft Wearable Bioelectronics for Connected Healthcare (2024)	Monash University	Australia	—
3	Toward an AI Era: Advances in Electronic Skins (2024)	National University of Singapore	Singapore	—
4	Soft Sensors and Actuators for Wearable Human–Machine Interfaces (2024)	Ulsan National Institute of Science and Technology (UNIST)	South Korea	—
5	Soft Materials and Devices Enabling Sensorimotor Functions in Soft Robots (2025)	Nanyang Technological University	Singapore	—
6	A three-dimensional liquid diode for soft, integrated permeable electronics (2024)	City University of Hong Kong, Southwest Jiaotong University, The Hong Kong Polytechnic University	China, P. R. China	—
7	Self-Healing Hydrogel Bioelectronics (2024)	Northwestern Polytechnical University, The University of Hong Kong, Xi'an Jiaotong University	China	—
8	Wearable and Implantable Soft Robots (2024)	California Institute of Technology	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of California San Diego	United States	SCImago #120 · THE 47 · QS 66	5
The Chinese University of Hong Kong	China	SCImago #163 · THE =41 · QS =32	3
National University of Singapore	Singapore	SCImago #59 · THE 17 · QS 8	3
Shenzhen University	China	SCImago #229 · THE 351–400 · QS =452	2
Stanford University	United States	SCImago #18 · THE =5 · QS 3	2
ETH Zurich	Switzerland	THE 11 · QS 7	2
University of Stuttgart	Germany	SCImago #1513 · THE 251–300 · QS =310	2
California Institute of Technology	United States	SCImago #449 · THE 7 · QS 10	2
University of Oxford	United Kingdom	SCImago #26 · THE 1 · QS 4	2
City University of Hong Kong	China	SCImago #342 · THE 73 · QS =63	1
Northwestern Polytechnical University	China	SCImago #203 · THE 251–300 · QS =499	1
University of California, San Diego	United States	SCImago #120 · THE 47 · QS 66	1
University of Waterloo	Canada	SCImago #491 · THE =162 · QS =119	1
Aarhus University	Denmark	SCImago #293 · THE 101 · QS 131	1
University of Toronto	Canada	SCImago #39 · THE 21 · QS 29	1

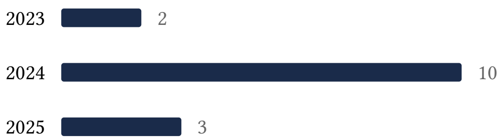
Geographic distribution of citing authors

Country	Citing papers
United States	8
China	7
Singapore	4
Switzerland	3
South Korea	2
Czech Republic	2
Germany	2
United Kingdom	2
Spain	1
Turkey	1
Netherlands	1
Canada	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar’s own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution’s rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- [ ] Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- [ ] Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- [ ] The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- [ ] For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- [ ] Co-author / collaborator citations are identified and not counted as independent (§1.7).
- [ ] Recognition is shown beyond the scholar's own institution and circle (§1.8).
- [ ] Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- [ ] Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- [ ] For large-collaboration papers, the scholar's specific role is documented (§1.13).
- [ ] Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition’s merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition’s exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Micro/nanorobots for biomedicine: Delivery, surgery, sensing, and detoxification	5	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Technology roadmap for flexible sensors	8	8 CFR 204.5(i)(3) — Outstanding Researcher