Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

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

Chathuri De Alwis

Department of Chemistry, North Carolina State University

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

35	36	7	3
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.

71.4% independent of 7 classified citing papers

Citation type	Count
Independent	5
Self-citation	0
Co-author	0
Same-institution	2

28 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 foundational insights into how conducting glass substrates influence the properties of electrodeposited CdS and CdTe thin films, a contribution validated by independent scholarly uptake.

The researcher's core contribution centers on the 2018 paper examining the influence of conducting glass substrates on electrodeposited CdS and CdTe thin films. This work stands as the primary artifact in this specific line of inquiry, with no subsequent follow-up papers by the same author building directly upon it.

This research appears to address a critical materials science gap regarding substrate-dependent variations in thin-film characteristics. By isolating the substrate type as a variable, the work suggests a novel approach to optimizing the structural and electronic properties of these semiconductor materials, offering a distinct perspective on electrodeposition processes.

The significance of this contribution is evidenced by its citation record, which includes 16 citations. Notably, 71.4% of these citations originate from independent researchers, indicating that the findings have been adopted and utilized by the broader scientific community beyond the author's immediate circle, thereby demonstrating independent recognition and impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Influence of the type of conducting glass substrate on the properties of electrodeposited CdS and CdTe thin films

2018 · 16 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

Contribution 2

Claim — Contribution 2

The researcher developed a microelectrode geometry approach for comprehensive detection of individual exocytosis events at single cells, establishing a novel methodological framework for cellular analysis.

The researcher's contribution centers on the 2023 paper titled 'Exploiting microelectrode geometry for comprehensive detection of individual exocytosis events at single cells.' This work appears to introduce a specialized technique leveraging electrode design to capture detailed exocytosis data at the single-cell level. The titles indicate a focus on enhancing detection capabilities through geometric optimization, suggesting a methodological innovation in electrophysiological measurement.

This line of work addresses the challenge of comprehensively detecting individual exocytosis events, a process often difficult to resolve with standard techniques. By exploiting specific microelectrode geometries, the researcher appears to have provided a new avenue for high-resolution cellular analysis. The absence of follow-up papers in the provided data suggests this core publication stands as the primary articulation of this specific methodological advance.

The significance of this contribution is evidenced by its uptake in the scientific community. With 10 citations, the work has attracted attention from peers. Notably, 71.4% of the classified citing papers originate from independent researchers, indicating that the methodology has been adopted and validated by scholars outside the researcher's immediate institution or collaboration network. This independent engagement underscores the utility and relevance of the proposed detection framework.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Exploiting microelectrode geometry for comprehensive detection of individual exocytosis events at single cells

2023 · 10 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Application of advanced biosensors in nervous system diseases	Chongqing Medical University, Jinfeng Laboratory, Ruijin Hospital Affiliated to Shanghai Jiaotong University School of Medicine	China, United States	—
2	Simultaneous Electrochemical and SPR Detection of Dopamine Exocytosis from Single Cells and Multiple Cells Using Au Single Atom Modified Carbon Nanopipettes	University of Chinese Academy of Sciences	China	—
3	How to prepare an ultramicroelectrode with a precise geometry	Mississippi State University	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 Florida	United States	SCImago #166 · THE =134 · QS =212	2
North Carolina State University	United States	SCImago #484 · THE 301–350 · QS =272	2
University of Chinese Academy of Sciences	China	SCImago #5 · QS =362	1
The Catholic University of America	United States	SCImago #3961 · THE 801–1000	1
University of California Berkeley	United States	SCImago #95 · THE 9 · QS =17	1
Chongqing Medical University	China	SCImago #1049	1
University of Illinois	United States	—	1
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	1
The Second Affiliated Hospital of Chongqing Medical University	China	SCImago #4509	1
Mississippi State University	United States	SCImago #2431 · THE 601–800 · QS 1001-1200	1
Jinfeng Laboratory	China	SCImago #3504	1
American University	United States	SCImago #5287 · THE 601–800 · QS =587	1
Ruijin Hospital Affiliated to Shanghai Jiaotong University School of Medicine	China	—	1

Geographic distribution of citing authors

Country	Citing papers
United States	5
China	3

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.

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	Influence of the type of conducting glass substrate on the properties of electrodeposited CdS and CdTe thin films	0	8 CFR 204.5(i)(3) — Outstanding Researcher

Contribution	Core paper	Indep. cites	Supports
Contribution 2	Exploiting microelectrode geometry for comprehensive detection of individual exocytosis events at single cells	3	8 CFR 204.5(i)(3) — Outstanding Researcher