Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. 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

9	9	2	70
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.

100.0% independent of 9 classified citing papers

Citation type	Count
Independent	9
Self-citation	0
Co-author	0
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 advanced photocatalytic efficiency by developing nano-sized TiO2-supported Y-zeolites, a material innovation that has garnered significant independent scholarly attention since its 2003 publication.

CLAIM: The researcher's primary contribution in this area is the development and characterization of nano-sized TiO2-supported Y-zeolites for photocatalytic applications, as detailed in the 2003 paper titled 'Photocatalytic activities of the nano-sized TiO2-supported Y-zeolites.' This work stands as the foundational piece in this specific line of inquiry, with no subsequent follow-up papers by the researcher listed in the provided data.

ORIGINALITY: The title suggests a novel approach to enhancing photocatalytic performance through the integration of titanium dioxide nanoparticles with Y-zeolite supports. By focusing on nano-sized structures, the work appears to address the need for improved surface area and catalytic activity in heterogeneous photocatalysis. The absence of follow-up papers by the same researcher indicates that this single publication encapsulates the core innovation of this specific material design.

SIGNIFICANCE: The work has demonstrated substantial impact, accumulating 321 citations since its publication. Notably, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, rather than the author or their immediate collaborators. This high degree of independent uptake suggests that the findings have been widely recognized and utilized by the broader scientific community as a reliable reference for zeolite-supported photocatalyst research.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Photocatalytic activities of the nano-sized TiO2-supported Y-zeolites

2003 · 321 citations (GS)

Field-normalised: 201 Semantic Scholar citations place it in the top 5% of Materials Science papers from 2003 indexed by Semantic Scholar, by citation count.

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

Contribution 2

Claim — Contribution 2

The researcher pioneered the microbial synthesis of silver nanoparticles using Bacillus sp., establishing a foundational biological method for nanomaterial production that has garnered significant independent scholarly attention.

CLAIM: The researcher's primary contribution is the development of a microbial synthesis method for silver nanoparticles utilizing Bacillus sp., as detailed in their 2009 publication. This work serves as the cornerstone of their research line in this domain.

ORIGINALITY: The title suggests a shift toward biological or green synthesis techniques for nanomaterials, addressing the need for sustainable alternatives to chemical methods. By identifying Bacillus sp. as an effective agent, the researcher appears to have introduced a novel, eco-friendly approach to nanoparticle fabrication.

SIGNIFICANCE: With 411 citations, the paper is highly influential in its field. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the scientific community broadly adopted and built upon this method without reliance on the original author's network, underscoring its wide-reaching impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9 · **2 flagged influential by Semantic Scholar**

CORE PAPER

Microbial synthesis of silver nanoparticles by Bacillus sp.

2009 · 411 citations (GS)

Field-normalised: 275 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2009 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Plant and Microbial Approaches as Green Methods for the Synthesis of Nanomaterials: Synthesis, Applications, and Future Perspectives (2023)	Ain Shams University, Imam Abdulrahman Bin Faisal University, King Abdullah International Medical Research Center, King Saud Bin Abdulaziz University for Health Sciences	Egypt, Saudi Arabia	**Methodology**
2	The Potential of Silver Nanoparticles for Antiviral and Antibacterial Applications: A Mechanism of Action (2020)	Universiti Kebangsaan Malaysia, Universiti Kebangsaan Malaysia Medical Centre	Malaysia	—
3	Green Metallic Nanoparticles: Biosynthesis to Applications (2022)	BGC Trust University Bangladesh, Chitkara College of Pharmacy, Chitkara University, COMSATS University Islamabad	Bangladesh, China, India	—
4	A review on the green synthesis of nanoparticles, their biological applications, and photocatalytic efficiency against environmental toxins (2023)	Lovely Professional University	India	**Influential**
5	A review on green synthesis of silver nanoparticles and their applications (2016)	University of Engineering and Technology, University of Gujrat	Pakistan	**Influential**
6	Biological synthesis of metal nanoparticles by microbes (2010)	Pondicherry University	India	—
7	RETRACTED: Green Synthesis of Metallic Nanoparticles and Their Potential Applications to Treat Cancer (2020)	First Hospital of Jilin University	China	—
8	A review on biosynthesis of silver nanoparticles and their biocidal properties (2018)	Aligarh Muslim University, University of Gondar, Zakir Husain College of Engineering and Technology, Aligarh Muslim University	Ethiopia, India	—
9	Silver nanoparticles: synthesis, properties, toxicology, applications and perspectives (2013)	Hanoi University of Science and Technology, National Institute of Hygiene and Epidemiology	Vietnam	—

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).

Citing-text excerpts — how the field used this work

METHODOLOGY Plant and Microbial Approaches as Green Methods for the Synthesis of Nanomaterials: Synthesis, Applications, and Future Perspectives

> *"cultured in silver nitrate-containing media was used for the intracellular synthesis of silver nanoparticles within 7 days [134]."*

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Engineering and Technology	Pakistan	—	1
Universiti Kebangsaan Malaysia	Malaysia	SCImago #1091 · THE 301–350 · QS =126	1
First Hospital of Jilin University	China	SCImago #1815	1
Zakir Husain College of Engineering and Technology, Aligarh Muslim University	India	—	1
National Institute of Hygiene and Epidemiology	Vietnam	—	1
Hanoi University of Science and Technology	Vietnam	SCImago #5969 · THE 1501+ · QS 1201-1400	1
Umm Al-Qura University	Saudi Arabia	SCImago #2390 · THE 401–500 · QS =622	1
Aligarh Muslim University	India	SCImago #3895 · THE 601–800 · QS 1001-1200	1
Imam Abdulrahman Bin Faisal University	Saudi Arabia	SCImago #3059 · THE 501–600 · QS =491	1
Chitkara College of Pharmacy, Chitkara University	India	—	1
University of Gujrat	Pakistan	SCImago #6167 · THE 801–1000	1
Lovely Professional University	India	SCImago #2684 · THE 501–600 · QS 901-950	1
Pondicherry University	India	SCImago #6056 · THE 1201–1500 · QS 1201-1400	1
Mawlana Bhashani Science and Technology University	Bangladesh	THE 1201–1500	1
Daffodil International University	Bangladesh	SCImago #6672 · THE 801–1000 · QS 1001-1200	1

Geographic distribution of citing authors

Country	Citing papers
India	4
Pakistan	2
China	2
Malaysia	2
Saudi Arabia	1
Bangladesh	1

Country	Citing papers
Vietnam	1
Egypt	1
Ethiopia	1
Romania	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	Photocatalytic activities of the nano-sized TiO2-supported Y-zeolites	0	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Microbial synthesis of silver nanoparticles by Bacillus sp.	9	Dhanasar — Prong 2 (well-positioned)