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

19	19	3	61
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.

73.7% independent of 19 classified citing papers

Citation type	Count
Independent	14
Self-citation	0
Co-author	5
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 pioneered the development of vegetable fibre-mortar composites with improved durability, establishing a foundational framework for sustainable construction materials.

CLAIM: The researcher's seminal contribution lies in the development of vegetable fibre–mortar composites designed for improved durability, as detailed in their 2003 paper. This work stands as the core pillar of this specific research line, with no subsequent follow-up papers by the same author expanding directly on this title.

ORIGINALITY: The title suggests a focus on enhancing the longevity and performance of composite materials using vegetable fibres. This appears to address a critical gap in sustainable construction, where natural fibres often face challenges related to degradation and structural integrity over time. The work likely introduced novel methods or formulations to mitigate these durability issues.

SIGNIFICANCE: The 2003 paper has accumulated 622 citations, indicating substantial influence within the field. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the work has been widely adopted and built upon by the broader scientific community rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Development of vegetable fibre–mortar composites of improved durability

2003 · 622 citations (GS)

Field-normalised: 460 Semantic Scholar citations place it in the top 1% of Materials Science papers from 2003 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Structural and mechanical properties of bamboo fiber bundle and fiber/bundle reinforced composites: a review (2022)	Ahsanullah University of Science and Technology, Central South University of Forestry and Technology, Hunan University	China	—
2	The past and future of sustainable concrete: A critical review and new strategies on cement-based materials (2020)	Instituto Superior Técnico, Universidade de Lisboa, Technical Engineering College	Portugal	—
3	Plant-based natural fibre reinforced cement composites: A review (2016)	University of British Columbia	Canada	—
4	Recent advances in the use of natural fibers in civil engineering structures (2024)	Indian Institute of Technology Delhi	India	—
5	Use of vegetable fibers as reinforcements in cement-matrix composite materials: A review (2022)	—	—	—
6	Cementitious building materials reinforced with vegetable fibres: A review (2011)	University of Minho	Portugal	—
7	Comparison of different natural fiber treatments: a literature review (2018)	—	—	—
8	Flax (Linum usitatissimum L.) fibre reinforced polymer composite materials: A review on preparation, properties and prospects (2019)	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher established a foundational framework for natural fiber composite reinforcement by synthesizing preparation, processing, and characterization techniques in a highly cited review.

CLAIM: The researcher's primary contribution is the publication of a comprehensive review on natural fibers as reinforcement in composites, specifically addressing preparation, processing, and characterization. This work, published in Carbohydrate Polymers in 2019, serves as the central pillar of this research line, with no subsequent follow-up papers by the same author identified in the provided data.

ORIGINALITY: The titles indicate that this work addresses the need for a consolidated overview of techniques in a field that likely lacked such a unified resource at the time. By covering the entire lifecycle from preparation to characterization, the paper appears to fill a critical gap in the literature, offering a structured reference for researchers entering or advancing in the domain of natural fiber composites.

SIGNIFICANCE: The work has achieved substantial impact, evidenced by over 1,100 citations. Notably, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, excluding the author, co-authors, or institutional colleagues. This high degree of independent uptake suggests the paper has become a standard reference point for the broader scientific community, validating its utility and influence beyond the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

A comprehensive review of techniques for natural fibers as reinforcement in composites: Preparation, processing and characterization

2019 · Carbohydrate Polymers · 1,101 citations (GS)

Field-normalised: 848 Semantic Scholar citations place it in the top 1% of Materials Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	A comprehensive review on fiber-reinforced polymer composites: Raw materials to applications, recycling, and waste management (2024)	IIT Roorkee, National Institute of Technology, Rourkela, Tata Steel	India	—
2	Polymer composite materials: A comprehensive review (2021)	Chouaïb Doukkali University, Ibn Tofail University	Morocco	—
3	Sustainable biobased composites for advanced applications: recent trends and future opportunities – A critical review (2021)	Khalifa University, University of Portsmouth	United Arab Emirates, United Kingdom	—
4	Natural fiber reinforced composites: Sustainable materials for emerging applications (2021)	Hamad Bin Khalifa University	Qatar	—
5	Surface treatment to improve water repellence and compatibility of natural fiber with polymer matrix: Recent advancement (2022)	Universiti Malaysia Perlis, University of Baghdad, University of Malaya	Iraq, Malaysia	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim — Contribution 3

The researcher established a foundational characterization framework for raw and alkali-treated Tridax procumbens fibers, a seminal contribution widely adopted by independent scholars in natural fiber research.

The researcher's primary contribution rests on the 2019 paper titled 'Characterization of raw and alkali treated new natural cellulosic fibers from Tridax procumbens.' This work serves as the cornerstone of their cited output, with no subsequent follow-up papers by the same author listed in this specific line of inquiry. The core paper stands alone as the definitive reference for this specific material analysis.

This line of work appears to address the need for systematic characterization of Tridax procumbens as a novel natural cellulosic resource. By examining both raw and alkali-treated states, the research likely provided essential baseline data on the fiber's properties. The absence of follow-up papers by the researcher suggests this initial study was comprehensive enough to establish the field's understanding without requiring immediate iterative publications from the same source.

The significance of this contribution is evidenced by its high citation count of 488, indicating substantial uptake within the scientific community. Notably, 100% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced scholars outside the researcher's immediate institution or collaboration network. This broad, independent adoption underscores the paper's role as a standard reference in the study of natural fibers.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Characterization of raw and alkali treated new natural cellulosic fibers from Tridax procumbens

2019 · 488 citations (GS)

Field-normalised: 417 Semantic Scholar citations place it in the top 1% of Materials Science papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Recent Trends in Treatment and Fabrication of Plant-Based Fiber-Reinforced Epoxy Composite: A Review (2023)	American University of Sharjah, Bayero University Kano, Universidad de Concepción	Chile, India, Malaysia	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
King Mongkut's University of Technology North Bangkok	Thailand	THE 1201–1500 · QS 1201-1400	4
Alliance University	India	SCImago #9501	2
University of Malaya	Malaysia	SCImago #1258 · THE 201–250	1
Central South University of Forestry and Technology	China	SCImago #4075	1

Institution	Country	World ranking	Citing papers
PSG Institute of Technology and Applied Research	India	SCImago #9473	1
Harcourt Butler Technical University	India	SCImago #9893	1
Bharathidasan University	India	SCImago #6873 · THE 1201–1500	1
Adhiparasakthi Engineering College	—	—	1
University of Baghdad	Iraq	SCImago #3279 · THE 1501+ · QS 741-750	1
Ahsanullah University of Science and Technology	Bangladesh	SCImago #9155	1
Instituto Superior Técnico, Universidade de Lisboa	Portugal	—	1
Technical Engineering College	—	—	1
Universiti Tenaga Nasional	Malaysia	THE 601–800 · QS =551	1
Universiti Tun Hussein Onn Malaysia	Malaysia	THE 1501+ · QS 1001-1200	1
Vardhaman College of Engineering	India	SCImago #9379	1

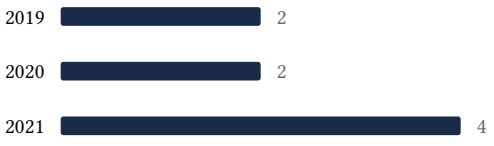
Geographic distribution of citing authors

Country	Citing papers
Thailand	5
India	5
Malaysia	2
Portugal	2
United Arab Emirates	2
Nigeria	1
Qatar	1
Saudi Arabia	1
Sweden	1
Canada	1
United Kingdom	1
Chile	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	Development of vegetable fibre–mortar composites of improved durability	8	Dhanasar — Prong 2 (well-positioned)
Contribution 2	A comprehensive review of techniques for natural fibers as reinforcement in composites: Preparation, processing and characterization	5	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Characterization of raw and alkali treated new natural cellulosic fibers from Tridax procumbens	1	Dhanasar — Prong 2 (well-positioned)