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 2026-05-22 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	6
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 developed a metal-catalyzed selective transfer hydrogenation method for converting alpha,beta-unsaturated carbonyls to allylic alcohols, published in Green Chemistry.

The researcher's contribution centers on a 2020 paper in Green Chemistry detailing metal-catalyzed selective transfer hydrogenation of alpha,beta-unsaturated carbonyl compounds to allylic alcohols. This work stands as the primary evidence of their technical innovation in this specific chemical transformation.

This line of work appears to address the challenge of achieving high selectivity in reducing unsaturated carbonyls, a common difficulty in organic synthesis. By focusing on transfer hydrogenation, the researcher likely aimed to provide a greener, more efficient alternative to traditional hydrogenation methods, as suggested by the venue and title.

The significance of this contribution is underscored by its citation record. With 77 citations, the paper has attracted substantial attention. Notably, 100% of the classified citing papers originate from independent researchers, indicating that the broader scientific community has adopted and built upon this methodology outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4

CORE PAPER

Metal-catalysed selective transfer hydrogenation of α,β-unsaturated carbonyl compounds to allylic alcohols

2020 · Green Chemistry (RSC Publishing) · 77 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Synthesis of ruthenium complexes and their catalytic applications: A review (2022)	Government College University, Universiti Malaysia Sabah, Universiti Teknologi MARA	Malaysia, Pakistan	—
2	Recent Advances on Heterogeneous Non-noble Metal Catalysts toward Selective Hydrogenation Reactions (2023)	Beijing University of Chemical Technology	China	—
3	Recent advances in homogeneous base-metal-catalyzed transfer hydrogenation reactions (2021)	Nazarbayev University, University of Chicago	Kazakhstan, United States	—
4	Recent advances in pincer–nickel catalyzed reactions (2021)	Indian Institute of Technology Guwahati	India	—

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 developed HMF-glycerol acetals as sustainable additives for polyurethane adhesive debonding, a contribution validated by independent citations in Green Chemistry.

The researcher's core contribution involves the development of HMF-glycerol acetals as additives for the debonding of polyurethane adhesives, as detailed in a 2021 paper published in Green Chemistry. This work stands as a distinct scholarly output without subsequent follow-up publications by the same author in the provided dataset.

This line of work appears to address the challenge of creating sustainable solutions for adhesive debonding. By utilizing HMF-glycerol acetals, the research suggests a novel approach to modifying polyurethane adhesives, potentially offering an eco-friendly alternative to traditional debonding methods. The absence of follow-up papers indicates this specific contribution is self-contained within the provided scope.

The significance of this work is evidenced by its citation record, with 48 citations recorded for the core paper. Notably, all nine classified citing papers originate from independent researchers, indicating that the broader scientific community has engaged with and built upon these findings outside the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 5

CORE PAPER

HMF–glycerol acetals as additives for the debonding of polyurethane adhesives†

2021 · Green Chemistry (RSC Publishing) · 48 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Designed to Degrade: Tailoring Polyesters for Circularity (2024)	KTH Royal Institute of Technology, Stockholm University	Sweden	—
2	Beyond 2,5-furandicarboxylic acid: status quo, environmental assessment, and blind spots of furanic monomers for bio-based polymers (2024)	Aristotle University of Thessaloniki, Ca' Foscari University of Venice, Fraunhofer Institute for Wood Research, Wilhelm-Klauditz Institute WKI	Belgium, Finland, France	—
3	Self-healing polyurethane with high strength and toughness based on a dynamic chemical strategy (2022)	Institute of Chemical Industry of Forestry Products, Chinese Academy of Forestry, Nanjing Forestry University	China	—
4	Acetalization strategy in biomass valorization: a review (2023)	Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Jishou University	China	—
5	Diverse Applications of Biomass-Derived 5-Hydroxymethylfurfural and Derivatives as Renewable Starting Materials (2022)	Concordia University	Canada	—

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
KTH Royal Institute of Technology	Sweden	SCImago #497 · THE =98 · QS 78	1
Indian Institute of Technology Guwahati	India	SCImago #4149 · QS =334	1
Wageningen University and Research	Netherlands	THE 66 · QS =153	1

Institution	Country	World ranking	Citing papers
Government College University	Pakistan	—	1
Concordia University	Canada	SCImago #1646 · THE 601–800 · QS =465	1
Dalian Institute of Chemical Physics, Chinese Academy of Sciences	China	SCImago #621	1
Beijing University of Chemical Technology	China	SCImago #781 · THE 401–500 · QS =697	1
Nanjing Forestry University	China	SCImago #702 · THE 601–800	1
Aristotle University of Thessaloniki	Greece	SCImago #1021 · THE 801–1000 · QS =485	1
Université Côte d'Azur	France	SCImago #1516 · THE 601–800 · QS =688	1
University of Chicago	United States	SCImago #124 · THE 15 · QS 13	1
University of Aveiro	Portugal	THE 601–800 · QS 419	1
Universiti Malaysia Sabah	Malaysia	THE 1501+ · QS 1001-1200	1
Universiti Teknologi MARA	Malaysia	SCImago #2260 · THE 1501+	1
Nazarbayev University	Kazakhstan	SCImago #4546 · THE 401–500	1

Geographic distribution of citing authors

Country	Citing papers
China	3
Canada	1
Finland	1
France	1
Germany	1
Greece	1
India	1
Italy	1
Kazakhstan	1
Malaysia	1
Netherlands	1
Pakistan	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.

2021 2

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	Metal-catalysed selective transfer hydrogenation of α,β-unsaturated carbonyl compounds to allylic alcohols	4	Dhanasar — Prong 2 (well-positioned)
Contribution 2	HMF–glycerol acetals as additives for the debonding of polyurethane adhesives†	5	Dhanasar — Prong 2 (well-positioned)