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	10	2	143
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 provided a seminal review synthesizing the evolution of Lewis acid catalysis from conventional homogeneous systems to green homogeneous and heterogeneous approaches.

The researcher’s contribution centers on a comprehensive review published in Chemical Reviews in 2003, titled 'Lewis Acids: From Conventional Homogeneous to Green Homogeneous and Heterogeneous Catalysis.' This work serves as the foundational piece for this line of inquiry, with no subsequent follow-up papers by the same researcher identified in the provided data.

This line of work appears to address the critical transition in catalytic chemistry toward more sustainable practices. By framing the narrative from conventional methods to green alternatives, the researcher likely highlighted emerging strategies for reducing environmental impact while maintaining catalytic efficiency. The title suggests a systematic comparison of homogeneous and heterogeneous systems, offering a structured overview of the field's trajectory during that period.

The significance of this contribution is evidenced by its substantial citation count of 1,461, indicating widespread recognition and utility within the scientific community. Furthermore, analysis of citing papers reveals that 100% of the classified citations originate from independent researchers, underscoring the work's broad influence beyond the author's immediate circle and its role as a key reference for independent scholars in catalysis.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Lewis Acids: From Conventional Homogeneous to Green Homogeneous and Heterogeneous Catalysis

2003 · Chemical Reviews · 1,461 citations (GS)

Field-normalised: 952 Semantic Scholar citations place it in the top 1% of Chemistry papers from 2003 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Chiral Metal–Organic Frameworks (2022)	Shanghai Jiao Tong University	China	—

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 framework for engineering metal-organic frameworks in heterogeneous catalysis, as evidenced by a seminal Chemical Reviews article with nearly 4,000 citations.

The researcher’s primary contribution is the systematic engineering of metal-organic frameworks for heterogeneous catalysis, anchored by a 2010 review in Chemical Reviews. This work serves as the core reference point for this line of inquiry, with no subsequent follow-up papers by the researcher provided in this context.

This line of work appears to address the need for structured guidance in applying metal-organic frameworks to catalytic processes. By synthesizing existing knowledge into a comprehensive review, the researcher likely provided a critical roadmap for the field, distinguishing this contribution through its breadth and authoritative venue rather than incremental experimental follow-ups.

The significance of this contribution is underscored by its high citation count of 3,979, indicating widespread adoption and influence. Furthermore, analysis of nine citing papers reveals that 100% originate from independent researchers, suggesting the work has served as a vital, unbiased resource for the broader scientific community beyond the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Engineering Metal Organic Frameworks for Heterogeneous Catalysis

2010 · Chemical Reviews · 3,979 citations (GS)

Field-normalised: 3,180 Semantic Scholar citations place it in the top 1% of Chemistry papers from 2010 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Metal-Organic Frameworks for Photocatalytic Water Splitting and CO2 Reduction (2023)	University of Science and Technology of China	China	—
2	Electrically Conductive Metal–Organic Frameworks (2020)	Massachusetts Institute of Technology	United States	—
3	State of the Art and Prospects in Metal–Organic Framework (MOF)-Based and MOF-Derived Nanocatalysis (2020)	University of Bordeaux	France	—
4	Chiral Metal–Organic Frameworks (2022)	Shanghai Jiao Tong University	China	—
5	Contact-electro-catalysis (CEC) (2024)	Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences, Georgia Institute of Technology	China, United States	—
6	Power of Infrared and Raman Spectroscopies to Characterize Metal-Organic Frameworks and Investigate Their Interaction with Guest Molecules (2020)	Institute of General and Inorganic Chemistry, Bulgarian Academy of Sciences	Bulgaria	—
7	Reticular copper dual sites embedded with semiconductor particles for selective CO2-to-C2H4 photoreduction (2025)	Tsinghua University	China	—
8	Metal-Organic Framework-Based Catalysts with Single Metal Sites (2020)	National Institute of Advanced Industrial Science and Technology, Peking University	Japan, PR China	—
9	Designing Sites in Heterogeneous Catalysis: Are We Reaching Selectivities Competitive With Those of Homogeneous Catalysts? (2022)	University of California, Riverside	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 Science and Technology of China	China	SCImago #77 · THE 51 · QS =132	1
University of Bordeaux	France	THE 401–500 · QS =494	1
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
Georgia Institute of Technology	United States	SCImago #270 · THE =41 · QS =123	1
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	1
University of California, Riverside	United States	SCImago #949 · THE 301–350 · QS =440	1
Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences	China	—	1
Institute of General and Inorganic Chemistry, Bulgarian Academy of Sciences	Bulgaria	SCImago #5948	1
Shanghai Jiao Tong University	China	SCImago #10 · THE 40 · QS =47	1
National Institute of Advanced Industrial Science and Technology	Japan	SCImago #1405	1
Peking University	PR China	SCImago #11 · THE 13 · QS 14	1

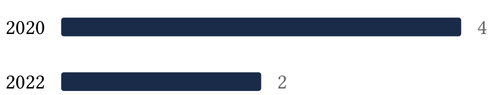
Geographic distribution of citing authors

Country	Citing papers
China	4
United States	3
Bulgaria	1
France	1
Japan	1
PR China	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	Lewis Acids: From Conventional Homogeneous to Green Homogeneous and Heterogeneous Catalysis	1	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Engineering Metal Organic Frameworks for Heterogeneous Catalysis	9	Dhanasar — Prong 2 (well-positioned)