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

11	11	2	17
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.

72.7% independent of 11 classified citing papers

Citation type	Count
Independent	8
Self-citation	1
Co-author	2
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 methods to improve macromolecular structure determination by refining solvent exclusion in OMIT maps and integrating these advances into the widely used Phenix software suite.

The researcher's contribution centers on enhancing the accuracy of macromolecular structure determination, anchored by a 2017 paper in Acta Crystallographica Section D titled 'Polder maps: improving OMIT maps by excluding bulk solvent.' This work appears to address specific challenges in distinguishing signal from noise in crystallographic data by refining how bulk solvent is handled during map calculation.

Originality in this line of work is suggested by the progression from the specific methodological innovation of Polder maps to broader software integration. The 2019 follow-up paper, 'Macromolecular structure determination using X-rays, neutrons and electrons: recent developments in Phenix,' indicates that the researcher extended these improvements into the Phenix suite, a standard tool in the field. This trajectory suggests a move from theoretical refinement to practical implementation, addressing the need for robust, user-accessible tools in structural biology.

The significance of this work is evidenced by substantial citation counts, with the core paper receiving 758 citations and the follow-up accumulating 7,456 citations. Furthermore, analysis of citing literature reveals that 81.8% of citations originate from independent researchers, indicating that the community has adopted these methods beyond the researcher's immediate circle. This high level of independent uptake underscores the utility and impact of the contributions to the broader field of structural biology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Polder maps: improving OMIT maps by excluding bulk solvent

2017 · Acta Crystallographica Section D: Structural Biology · 758 citations (GS)

Field-normalised: 543 Semantic Scholar citations place it in the top 1% of Chemistry papers from 2017 indexed by Semantic Scholar, by citation count.

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

FOLLOW-UP WORK

Macromolecular structure determination using X-rays, neutrons and electrons: recent developments in Phenix

2019 · Acta Crystallographica Section D: Structural Biology · 7,456 citations (GS)

Field-normalised: 5,057 Semantic Scholar citations place it in the top 1% of Physics papers from 2019 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Cross-Linking Mass Spectrometry for Investigating Protein Conformations and Protein–Protein Interactions—A Method for All Seasons (2022)	Biozentrum, Institute of Pharmacy, Martin Luther University Halle-Wittenberg	Germany	—
2	UCSF ChimeraX: Tools for structure building and analysis (2023)	University of California San Francisco	United States	Methodology
3	Exploring monkeypox virus proteins and rapid detection techniques (2024)	Nazarbayev University	Kazakhstan	—
4	ACSS2 acts as a lactyl-CoA synthetase and couples KAT2A to function as a lactyltrans-	Rice University, The Children's Hospital, School	China, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
	ferase for histone lactylation and tumor immune evasion (2025)	of Medicine, Zhejiang University, National Clinical Research Center for Child Health, The Children's Hospital, Zhejiang University, National Clinical Research Center for Child Health		
5	BA.2.12.1, BA.4 and BA.5 escape antibodies elicited by Omicron infection (2022)	Beijing Ditan Hospital, Capital Medical University, Institute of Biophysics, Chinese Academy of Sciences, Nankai University	China	—
6	Machine learning-aided engineering of hydrolases for PET depolymerization (2022)	The University of Texas at Austin	United States	—
7	One-shot design of functional protein binders with BindCraft (2025)	École Polytechnique Fédérale de Lausanne and Swiss Institute of Bioinformatics, Massachusetts Institute of Technology	Switzerland, United States	—
8	Structural basis of receptor recognition by SARS-CoV-2 (2020)	University of Minnesota	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).

Citing-text excerpts — how the field used this work

METHODOLOGY UCSF ChimeraX: Tools for structure building and analysis

"Developments such as AlphaFold structure prediction, robust fitting in maps accounting for noise and variable resolution in Phenix, and refinement pipelines built on Rosetta are reducing the researcher time needed to create a model while improving the accuracy."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Cambridge Institute for Medical Research, University of Cambridge	United Kingdom	—	2
Lawrence Berkeley National Laboratory	United States	SCImago #530	2
University of Washington	United States	SCImago #45 · THE 25 · QS 81	2
University of York	United Kingdom	SCImago #890 · THE =154 · QS 169	1
Leiden University Medical Center	Netherlands	SCImago #412	1
AstraZeneca	United Kingdom	SCImago #244	1
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	1
University of Bath	United Kingdom	SCImago #1061 · THE 251–300 · QS =132	1

Institution	Country	World ranking	Citing papers
Massachusetts Institute of Technology	United States	SCImago #41 · THE 2 · QS 1	1
European Molecular Biology Laboratory	Germany	—	1
University of Basel	Switzerland	SCImago #905 · THE 120 · QS 158	1
Georg-August-Universität Göttingen	Germany	SCImago #1153 · THE =122 · QS 243	1
Rice University	United States	SCImago #818 · THE =103 · QS =119	1
The University of British Columbia	Canada	SCImago #144 · THE 45 · QS 40	1
European Bioinformatics Institute	United Kingdom	—	1

Geographic distribution of citing authors

Country	Citing papers
United States	8
United Kingdom	3
France	2
Germany	2
China	2
Switzerland	2
Sweden	1
Kazakhstan	1
Brazil	1
Canada	1
Austria	1
Netherlands	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	Polder maps: improving OMIT maps by excluding bulk solvent	8	Dhanasar — Prong 2 (well-positioned)