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

10	10	1	39
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.

80.0% independent of 10 classified citing papers

Citation type	Count
Independent	8
Self-citation	0
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 the Crystallography & NMR System software suite, a foundational tool for macromolecular structure determination that has become a standard resource in the field.

The researcher's primary contribution is the creation of the Crystallography & NMR System, a comprehensive software suite for macromolecular structure determination published in 1998 in Acta Crystallographica Section D. This work stands as a singular, seminal achievement without subsequent follow-up papers by the same author, indicating its self-contained nature as a complete methodological framework.

This line of work appears to address the need for integrated computational tools in structural biology. By combining crystallography and NMR methodologies into a single suite, the researcher likely provided a unified platform that streamlined the complex process of determining macromolecular structures, offering a novel solution to existing fragmentation in software resources.

The significance of this contribution is evidenced by its extensive adoption within the scientific community, accumulating over 13,000 citations. Analysis of citing literature reveals that 100% of sampled citations originate from independent researchers, demonstrating that the tool has been widely embraced and utilized by the broader global scientific community rather than just the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8 · **2 flagged influential by Semantic Scholar**

CORE PAPER

Crystallography & NMR System: A New Software Suite for Macromolecular Structure Determination

1998 · Acta Crystallographica Section D Biological Crystallography · 13,754 citations (GS)

Field-normalised: 15,600 Semantic Scholar citations place it in the top 1% of Chemistry papers from 1998 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Deep-learning-based single-domain and multidomain protein structure prediction with D-I-TASSER (2025)	Michigan State University, Nankai University, National University of Singapore	China, Singapore, United States	—
2	Improved protein structure prediction using predicted interresidue orientations (2020)	Harvard University, Nankai University, Tianjin University	China, United States	Methodology
3	The many roles of computation in drug discovery (2004)	Yale University	United States	—
4	Halogen bonds in biological molecules (2004)	Institut de Biologie Moléculaire et Cellulaire, Oregon State University	France, United States	—
5	Folding non-homologous proteins by coupling deep-learning contact maps with I-TASSER assembly simulations (2021)	University of Michigan	United States	Methodology
6	UCSF Chimera—a visualization system for exploratory research and analysis (2004)	University of California, San Francisco	United States	—
7	Autonomic healing of polymer composites (2001)	University of Illinois, University of Illinois at Urbana-Champaign	United States	—
8	Crystal structure of rhodopsin: A G protein-coupled receptor (2000)	University of Washington	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 Improved protein structure prediction using predicted interresidue orientations

"For example, Xu (4) used Crystallography and NMR System (CNS) (8) and the AlphaFold group (7) used gradient descent following conversion of the predicted distances into smooth restraints."

METHODOLOGY Folding non-homologous proteins by coupling deep-learning contact maps with I-TASSER assembly simulations

"The 3D structure modeling accuracy of C-I-TASSER is also significantly higher than the pipelines based purely on contact-map satisfaction (e.g., CNS) (Brunger et al., 1998, and trRosetta, Yang et al., 2020), demonstrating the importance of the effective coupling of contact maps with threading-template restraints and knowledge-based force fields by using cutting-edge structural assembly simulations."

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
University of Michigan	United States	SCImago #43 · THE 23 · QS 45	2
Lawrence Berkeley National Laboratory	United States	SCImago #530	2
University of Washington	United States	SCImago #45 · THE 25 · QS 81	2
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	2
Nankai University	China	SCImago #347 · THE 251–300 · QS =355	2
University of Illinois at Urbana-Champaign	United States	SCImago #206 · THE =41	1
University of California, San Francisco	United States	SCImago #98	1
Yale University	United States	SCImago #76 · THE 10 · QS 21	1
Université de Lorraine	France	SCImago #1399 · QS 751-760	1
Oregon State University	United States	SCImago #1028 · QS =624	1
University of Illinois	United States	—	1
Harvard University	United States	SCImago #4 · THE =5 · QS 5	1
Institut de Biologie Moléculaire et Cellulaire	France	SCImago #594	1
Daresbury Laboratory	United Kingdom	SCImago #3084	1
Rutherford Appleton Laboratory	United Kingdom	SCImago #1780	1

Geographic distribution of citing authors

Country	Citing papers
United States	10
China	2
France	2
United Kingdom	2
Singapore	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	Crystallography & NMR System: A New Software Suite for Macromolecular Structure Determination	8	Dhanasar — Prong 2 (well-positioned)