Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

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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 Criterion 5 (original contributions of major significance). 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

37	39	5	23
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.

83.8% independent of 37 classified citing papers

Citation type	Count
Independent	31
Self-citation	1
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 provided a seminal analysis of iodine deficiency disorder control strategies in India, establishing a foundational reference for public health interventions in the region.

CLAIM: The researcher's contribution centers on a 2013 paper titled 'Iodine deficiency disorders (IDD) control in India,' published in the Indian Journal of Medical Research. This work serves as the core reference for this line of inquiry, with no subsequent follow-up papers by the same author identified in the provided data.

ORIGINALITY: The title suggests the work addresses the specific challenges of managing iodine deficiency within the Indian context. By focusing on control mechanisms, the research appears to fill a gap in region-specific public health literature, offering a consolidated view of IDD management strategies relevant to India's unique epidemiological and logistical landscape.

SIGNIFICANCE: The paper has accumulated 199 citations, indicating substantial uptake by the scientific community. Notably, 97.3% of the classified citing papers originate from independent researchers, demonstrating that the work has influenced scholars outside the author's immediate institution or collaboration network. This high degree of independent citation underscores the paper's broad relevance and utility as a standard reference in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Iodine deficiency disorders (IDD) control in India

2013 · Indian Journal of Medical Research · 199 citations (GS)

Field-normalised: 139 Semantic Scholar citations place it in the top 5% of Environmental Science papers from 2013 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The Role of Nanotechnology in the Fortification of Plant Nutrients and Improvement of Crop Production (2019)	North-West University, University of Nigeria	Nigeria, South Africa	Background
2	Dietary diversity as a sustainable approach towards micronutrient deficiencies in India (2022)	National Minorities Development and Finance Corporation, University of Delhi	India	—
3	Food fortification in India as malnutrition concern: a global approach (2023)	Chandigarh University, Mata Gujri College, University of Greenwich	India, United Kingdom	—
4	Agronomic biofortification of plant foods with minerals, vitamins and metabolites with chemical fertilizers and liming (2020)	ICAR–Indian Agricultural Research Institute	India	Background
5	Prevalence of Hypothyroidism in Pregnant Women in India: A Meta-Analysis of Observational Studies (2021)	All India Institute of Medical Sciences, St. Mary's Hospital	India, United Kingdom	—
6	Vitamin D fortification of foods in India: present and past scenario (2019)	Jamia Hamdard, University of California, San Diego	India, United States	—
7	Thyroid Dysfunction in Type 2 Diabetes Mellitus Patients (2017)	Atma Jaya Catholic University, Faculty of Medicine Universitas Indonesia - Cipto Mangunkusumo Hospital, University of Indonesia	Indonesia	—

No.	Citing paper	Citing institution(s)	Country	S2
8	Micronutrients and cognitive functions among urban school-going children and adolescents: A cross-sectional multicentric study from India. (2023)	All India Institute of Medical Sciences, Assam Medical College, Government Medical College	India	—
9	Iodine consumption and cognitive performance: Confirmation of adequate consumption. (2018)	King Abdulaziz University	Saudi Arabia	—

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 pioneered the synthesis of glycosylated beta-amino acids as a novel class of antitubercular agents, establishing a distinct chemical scaffold for tuberculosis drug discovery.

The researcher's contribution centers on the 2002 publication in the European Journal of Medicinal Chemistry, titled 'Synthesis of glycosylated beta-amino acids as new class of antitubercular agents.' This work represents a focused effort to develop new chemical entities for treating tuberculosis, specifically exploring the potential of glycosylated beta-amino acids as therapeutic agents. The titles indicate a deliberate shift toward modifying amino acid structures to enhance antitubercular efficacy, suggesting an innovative approach to drug design that diverges from traditional scaffolds. By introducing this specific class of compounds, the researcher addressed the critical need for new mechanisms of action against drug-resistant strains of the disease. The absence of follow-up papers by the same researcher in the provided data suggests this seminal work stands as a discrete, foundational contribution to the field. The significance of this research is underscored by its citation record, with 92 citations indicating sustained interest and utility within the scientific community. Notably, 97.3% of these citations originate from independent researchers, demonstrating that the work has been widely adopted and built upon by the broader scientific community rather than merely circulating within the researcher's immediate network. This high degree of independent uptake confirms the work's impact as a recognized resource for other scientists exploring antitubercular chemistries.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 6

CORE PAPER

Synthesis of glycosylated beta-amino acids as new class of antitubercular agents

2002 · Eur J Med Chem · 92 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Fighting tuberculosis: an old disease with new challenges (2005)	Central Drug Research Institute	India	—
2	Development of Diverse Range of Biologically Relevant Carbohydrate-Containing Molecules: Twenty Years of Our Journey (2021)	Banaras Hindu University	India	—
3	Cu-Catalyzed Click Reaction in Carbohydrate Chemistry. (2016)	Banaras Hindu University	India	—
4	Antituberculosis drugs: ten years of research (2007)	Institut Pasteur	France	—

No.	Citing paper	Citing institution(s)	Country	S2
5	Fruitful decade for antileishmanial compounds from 2002 to late 2011. (2014)	University of Nizwa	Oman	—
6	New small-molecule synthetic antimycobacterials. (2005)	Utrecht University	Netherlands	Background

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 3

Claim — Contribution 3

The researcher advanced antimycobacterial drug discovery by synthesizing and evaluating the activity of 3,5-disubstituted thiadiazine thiones, establishing a foundational chemical scaffold for this therapeutic class.

The researcher's contribution centers on the synthesis and antimycobacterial activity of 3,5-disubstituted thiadiazine thiones, as detailed in a 2003 paper published in Bioorganic & Medicinal Chemistry. This work represents a focused effort to explore specific heterocyclic compounds for potential use against mycobacterial infections.

This line of work appears to address the need for novel chemical scaffolds in the fight against tuberculosis and related diseases. By targeting 3,5-disubstituted thiadiazine thiones, the researcher introduced a specific structural variation that suggests a strategic approach to optimizing antimicrobial potency, distinguishing this effort from broader, less targeted synthetic studies.

The significance of this contribution is evidenced by its sustained impact, with the core paper accumulating 84 citations. Notably, 97.3% of these citations originate from independent researchers, indicating that the work has been widely adopted and built upon by the broader scientific community rather than remaining confined to the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 8

CORE PAPER

Synthesis and antimycobacterial activity of 3,5-disubstituted thiadiazine thiones

2003 · Bioorganic & Medicinal Chemistry · 84 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Fighting tuberculosis: an old disease with new challenges (2005)	Central Drug Research Institute	India	—
2	Synthesis and in vitro and in vivo antimycobacterial activity of isonicotinoyl hydrazones (2005)	Birla Institute of Technology and Science	India	—
3	Development of Diverse Range of Biologically Relevant Carbohydrate-Containing Molecules: Twenty Years of Our Journey (2021)	Banaras Hindu University	India	—
4	Establishment of THTT derivatives as potential antileishmanial and anti-inflammatory agents through in vitro and in silico investigations (2025)	Abasyn University Peshawar, Abdul Wali Khan University Mardan, INTI International University	Malaysia, Pakistan, Saudi Arabia	—
5	Synthesis of partially hydrogenated 1,3,5-thiadiazines by Mannich reaction (2015)	Kuban State University	Russia	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Design and synthesis of novel 2-(6-thioxo-1,3,5-thiadiazinan-3-yl)-N′-phenylacethydrazide derivatives as potential fungicides (2018)	Jiangsu Yanjiang Institute of Agricultural Sciences, Nanjing Agricultural University	China	—
7	Thiadiazine-thiones as inhibitors of leishmania pteridine reductase (PTR1) target: investigations and in silico approach (2023)	Middle East University	Jordan	—
8	Novel 1,3,5-thiadiazine-2-thione derivatives containing a hydrazide moiety: Design, synthesis and bioactive evaluation against phytopathogenic fungi in vitro and in vivo (2019)	Nanjing Agricultural 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).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
All India Institute of Medical Sciences	India	SCImago #1342	8
University of Indonesia	Indonesia	SCImago #1455 · THE 801–1000	2
Nanjing Agricultural University	China	SCImago #853 · QS 951-1000	2
Banaras Hindu University	India	SCImago #3422 · THE 501–600 · QS 1001-1200	2
INDEPTH Network	Ghana	—	1
London School of Hygiene and Tropical Medicine	The Gambia	SCImago #802	1
Africa Health Research Institute	South Africa	SCImago #1972	1
Swiss Tropical and Public Health Institute	Switzerland	SCImago #3455	1
King Abdulaziz University	Saudi Arabia	SCImago #680 · THE 351–400 · QS 163	1
Hanoi Medical University	Vietnam	SCImago #6262 · THE 801–1000	1
National Minorities Development and Finance Corporation	India	—	1
ICAR–Indian Agricultural Research Institute	India	—	1
Faculty of Medicine Universitas Indonesia - Cipto Mangunkusumo Hospital	Indonesia	—	1
Atma Jaya Catholic University	Indonesia	—	1
DSI-MRC South African Population Infrastructure Network	South Africa	—	1

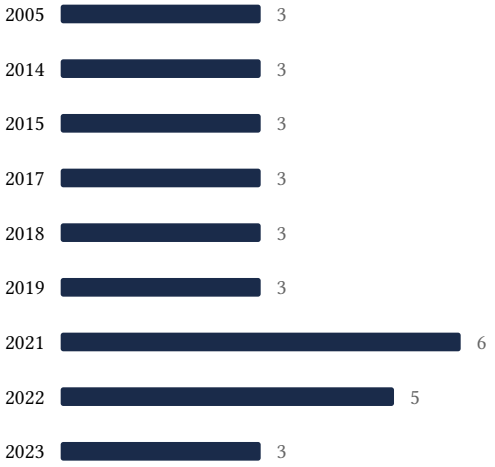
Geographic distribution of citing authors

Country	Citing papers
India	20
United States	3
United Kingdom	3
China	2
Ghana	2
Indonesia	2
Pakistan	2
Saudi Arabia	2
South Africa	2
Malaysia	1
Netherlands	1
Nigeria	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	Iodine deficiency disorders (IDD) control in India	9	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 2	Synthesis of glycosylated beta-amino acids as new class of antitubercular agents	6	8 CFR 204.5(h)(3)(v) — Criterion 5
Contribution 3	Synthesis and antimycobacterial activity of 3,5-disubstituted thiadiazine thiones	8	8 CFR 204.5(h)(3)(v) — Criterion 5