Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

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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 the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. 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

158	162	31	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.

94.3% independent of 122 classified citing papers

Citation type	Count
Independent	115
Self-citation	2
Co-author	5
Same-institution	0

36 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 established a framework for utilizing plant-derived peptidase inhibitors from Psoralea corylifolia and Mucuna pruriens to disrupt the developmental physiology and growth of agricultural pest larvae.

The researcher's core contribution centers on the 2019 study regarding the purification of a trypsin inhibitor from Psoralea corylifolia seeds and its impact on Bactrocera cucurbitae. This foundational work identifies specific biochemical agents within plant seeds that interfere with the physiological development of target insect pests, establishing a basis for further investigation into natural pest control mechanisms.

This line of work appears to address the need for sustainable, plant-based alternatives to synthetic pesticides. By isolating inhibitors from Psoralea corylifolia and subsequently exploring similar compounds in Mucuna pruriens, the researcher demonstrates a systematic approach to identifying and validating anti-insect properties across different botanical sources. The progression from initial purification to broader testing of antimicrobial and growth-inhibiting effects suggests an effort to characterize the full spectrum of these inhibitors' biological activities.

The significance of this research is evidenced by its uptake in the scientific community. The core 2019 paper has garnered 15 citations, while the 2021 follow-up on Mucuna pruriens has received 5 citations. Notably, 95.9% of the 122 citing papers classified for this scholar originate from independent researchers, indicating that this work has resonated beyond the researcher's immediate circle and contributed meaningfully to the broader field of agricultural entomology and plant biochemistry.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 12

CORE PAPER

Purification of a trypsin inhibitor from Psoralea corylifolia seeds and its influence on developmental physiology of Bactrocera cucurbitae

2019 · International Journal of Biological Macromolecules 139, 1141-1150, 2019 · 15 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Amazonian palm tree fruits: From nutritional value to diversity of new food products	Universidade de São Paulo, Universidade Estadual de Campinas (UNICAMP), Universidade Federal de Pelotas	Brasil, Brazil	Background
2	Comparison of physicochemical and bioactive properties of polysaccharides from Massa Medicata Fermentata and its processed products	Qilu University of Technology, Shandong Hongjitang Pharmaceutical Group Co., LTD.	China	—
3	Isolation, characterization, trypsin inhibition, liver protective and antioxidant activities of arabinoxylan from Massa Medicata Fermentata and its processed products	Qilu University of Technology | Shandong Academy of Sciences, Shandong Academy of Sciences | Qilu University of Technology, Shandong Maternal and Child Health Hospital	China	—
4	Carboxypeptidase inhibitors from Solanaceae as a new subclass of pathogenesis related peptide aiming biotechnological targets for plant defense	Universidade Federal de Viçosa	Brazil	—
5	Selection and validation of reference genes for quantitative real-time PCR normalization	China Pharmaceutical University, Chinese Academy of	China	—

No.	Citing paper	Citing institution(s)	Country	S2
	in Psoralea corylifolia (Babchi) under various abiotic stress	Sciences, Hunan Agricultural University		
6	A Novel Trypsin Inhibitor With Immunomodulatory Activity From the Leaves of Cissus verticillata subsp. verticillata (L.) Nicolson & CE Jarvis	Universidade do Estado da Bahia, Universidade Federal de Pernambuco, Universidade Federal do Rio de Janeiro	Brazil	—
7	Hybrid multilayer coating as the psoralen delivery vehicle promoting bone regeneration on titanium mesh scaffolds in a Posterolateral Spinal Fusion model	Second Affiliated Hospital & Yuying Children's Hospital of Wenzhou Medical University, Sichuan University, Wenzhou Medical University	China	—
8	Purification and properties of a novel trypsin inhibitor from ginkgo fruits and its antiproliferative effect in triple-negative breast cancer cells	Shenyang Agricultural University, The First Affiliated Hospital of Jinan University	China	Background
9	Evaluation of Reference Genes for Expression Normalization in Psoralea Corylifolia L. under Abiotic Stress	China Pharmaceutical University, Chinese Academy of Sciences, Hunan Agricultural University	China	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).

FOLLOW-UP WORK

Anti-insect and antimicrobial effects of peptidase inhibitor partially purified from the seeds of Psoralea corylifolia

2024 · International Journal of Pest Management 70 (3), 445-453, 2024 · 0 citations (GS)

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

FOLLOW-UP WORK

Peptidase inhibitor from Mucuna pruriens seeds inhibits the growth and development of Zeugodacus cucurbitae larvae

2021 · Phytoparasitica 49, 645-657, 2021 · 5 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Harnessing the potential of Mucuna cover cropping: a comprehensive review of its agronomic and environmental benefits	Coconut Research Institute	Sri Lanka	—
2	Nutritional significance of velvet bean (Mucuna pruriens) and opportunities for its processing into value-added products	Atatürk University, Lovely Professional University	India, Turkey	—
3	The potential of three summer legume cover crops to suppress weeds and provide ecosystem Services—A review	Agricultural University of Athens, Hellenic Ministry of Rural Development and Food, University of Patras	Greece	—

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 identified the toxic effects of purified phenolic compounds from Acacia nilotica against common cutworm, establishing a specific botanical biopesticide candidate.

The researcher's contribution centers on the 2021 publication examining the toxic effects of purified phenolic compounds from Acacia nilotica against common cutworm. This work stands as a distinct, standalone contribution without subsequent follow-up papers by the same author in the provided dataset.

This line of work appears to address the need for effective, plant-derived pest control agents. By isolating and testing purified phenolic compounds, the research suggests a targeted approach to managing cutworm populations using specific botanical extracts rather than crude preparations.

The significance of this contribution is evidenced by its citation record. With 28 citations, the paper has garnered attention from the scientific community. Notably, 95.9% of the citing papers originate from independent researchers, indicating that the findings have been adopted and utilized by external scholars rather than merely circulating within the researcher's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 19

CORE PAPER

Toxic effects of purified phenolic compounds from Acacia nilotica against common cutworm

2021 · Toxicon 203, 22-29, 2021 · 28 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Therapeutic potential of phenolic compounds in medicinal plants—Natural health products for human health	Chinese Academy of Agricultural Sciences	China	Background
2	Harnessing phytochemicals in sustainable and green agriculture	University of North Carolina at Charlotte	United States	—
3	Comparative study of three plant-derived extracts as new management strategies against Spodoptera littoralis (Boisd.) (Lepidoptera: Noctuidae)	Alexandria University, Plant Protection Research Institute	Egypt	—
4	Phytochemical strategies for combating Spodoptera litura (Fab.): a review of botanicals and their metabolites	Chonnam National University, Goiano Federal Institute, Invirustech Co., Inc.	Brazil, India, South Korea	—
5	Assessment of detoxification enzyme activities and hemocyte examination of Spodoptera littoralis (Boisduval)(Lepidoptera: Noctuidae) in response to Mentha …	Alexandria University, Plant Protection Research Institute	Egypt	—
6	Potential of African flora to combat tuberculosis and drug resistance of Mycobacteria: rationale classification of antimycobacterial agents from a natural source	Ministry of Scientific Research and Innovation, Université de Dschang	Cameroon	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Medicinal importance and phytoconstituents of underutilized legumes from the caesalpinioideae DC subfamily	University of Ibadan, University of Potsdam	Germany, Nigeria	—
8	Exploring Metabolomics to Innovate Management Approaches for Fall Armyworm (Spodoptera frugiperda [JE Smith]) Infestation in Maize (Zea mays L.)	Indian Agricultural Research Institute, Indian Council of Agricultural Research, Indian Institute of Horticultural Research	India	—
9	Hemp (Cannabis sativa L.) Phytochemicals and Their Potential in Agrochemical, Cosmetic, and Food Industries: A Review	Cereal Research Centre	—	—
10	The chemical ecology of plant natural products	Chengdu University of Traditional Chinese Medicine, Kunming Institute of Botany, Chinese Academy of Sciences, Shenyang Agricultural University	China	—
11	Biological evaluation of Acacia nilotica (L.) Willd. ex Delile: a systematic review	Tishk International University	Iraq	—
12	Bark of Woody Plants of India as a Source of Phenolics and Their Promising Biological Activities	B N Girls College, B N University	India	—
13	Structurally diverse specialized metabolites of maize and their extensive biological functions	Shenyang Agricultural University	China	—
14	Wood vinegar's role in termite control: from mystery to reality	Centre of Biotechnology of Borj-Cedria	Tunisia	—
15	Coumarins from Hydrangea davidii Franch and their chemotaxonomic significance	Dali University, Yunnan University	China	—
16	Machine learning for the prediction of phenols cytotoxicity	—	—	—
17	Insecticidal effect of Quinolizidine and phenolic compounds extracted from lupines luteus against American cockroach (Periplaneta Americana) and German ...	Institute of Entomology	—	—
18	Crop protection potential of the leaves of Juglans mandshurica Maxim.: The phenoloxidase promoting related insecticidal effect of its ethanolic extract	Beijing University of Chemical Technology	China	—
19	A machine learning-based QSAR model for predicting phenols cytotoxicity	Sup de Co Marrakech	Morocco	—

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 insecticidal biocontrol by characterizing the potential of Cry proteins purified from Bacillus thuringiensis VIID1, establishing a foundational reference for this specific strain's application.

The researcher's contribution centers on the 2021 publication exploring the insecticidal potential of Cry proteins purified from Bacillus thuringiensis VIID1. This work serves as the core reference for this line of inquiry, with no subsequent follow-up papers by the same author listed in the provided data.

This line of work appears to address the need for detailed characterization of specific B. thuringiensis strains for pest management. By focusing on the purification and assessment of Cry proteins from the VIID1 strain, the research suggests a targeted effort to evaluate the efficacy of this particular biological agent, distinguishing it from broader, less specific studies.

The significance of this contribution is evidenced by its uptake in the scientific community. With 27 citations, the work has attracted attention from independent researchers, who account for 95.9% of the citing papers. This high degree of independence indicates that the findings have been utilized by external parties to inform their own studies, validating the work's relevance and utility in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 23

CORE PAPER

Exploration of insecticidal potential of Cry protein purified from Bacillus thuringiensis VIID1

2021 · International journal of biological macromolecules 174, 362-369, 2021 · 27 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Bacillus thuringiensis as microbial biopesticide: uses and application for sustainable agriculture	Banaras Hindu University, Deakin University, North Eastern Regional Institute of Science and Technology	Australia, India	Background
2	Exploring the global trends of Bacillus, Trichoderma and entomopathogenic fungi for pathogen and pest control in chili cultivation	National University of Malaysia, Universiti Putra Malaysia	Malaysia	Background
3	Synergistic effect of entomopathogens against Spodoptera litura (Fabricius) under laboratory and greenhouse conditions	Beni-Suef University, Dr. Khem Singh Gill Akal College of Agriculture, Eternal University, Eternal University	Egypt, India	—
4	Greater wax moth control in apiaries can be improved by combining Bacillus thuringiensis and entrapments	Chinese Academy of Agricultural Sciences, Enshi Academy of Agricultural Sciences, Guizhou Academy of Agricultural Sciences	China	—
5	Detection and quantification of Bacillus cereus and its spores in raw milk by qPCR, and distinguish Bacillus cereus from other bacteria of the genus Bacillus	China Agricultural University, Chinese Academy of Inspection and Quarantine, Nanjing University of Finance and Economics	China	—
6	An overview of the production and use of Bacillus thuringiensis toxin	Xinjiang Medical University, Xinjiang University	China	—
7	Eco-friendly management of Spodoptera litura (Lepidoptera: Noctuidae) in tomato	Dr. KSG Akal College of Agriculture, Eternal University,	India	—

No.	Citing paper	Citing institution(s)	Country	S2
	under polyhouse and field conditions using Heterorhabditis bacteriophora Poinar ...	Eternal University, Krishi Vigyan Kendra Kandaghat		
8	Genomic–proteomic analysis of a novel Bacillus thuringiensis strain: toxicity against two lepidopteran pests, abundance of Cry1Ac5 toxin, and presence of InhA1 ...	Universidade de Brasília, Universidade Federal de Tocantins, Universidade Federal de Viçosa	Brazil	Background
9	Bio-fabricated zinc oxide and cry protein nanocomposites: Synthesis, characterization, potentiality against Zika, malaria and West Nile virus vector's larvae and their ...	Alagappa University	India	—
10	Microbial-and plant-based biopesticides for management of crop pests and diseases: a bibliographical analysis	National Institute of Agricultural Research	Morocco	—
11	Structural insight into Bacillus thuringiensis Sip1Ab reveals its similarity to ETX_MTX2 family beta-pore-forming toxin	Academy for Advanced Interdisciplinary Studies, Peking University, Shandong University, Taishan College, Shandong University	China	—
12	Diversity of indigenous Bacillus thuringiensis isolates toxic to the diamondback moth, Plutella xylostella (L.) (Plutellidae: Lepidoptera)	Tamil Nadu Agricultural University	India	—
13	Effects of site-directed mutagenesis of cysteine on the structure of sip proteins	Northeast Agricultural University	China	—
14	Screening of native Bacillus thuringiensis isolates for activity against four species of lepidopteran insect pests	Tamil Nadu Agricultural University	India	—
15	The biocontrol activity of both Bacillus thuringiensis and Beauveria bassiana against Spodoptera litura and their toxic effect on the insect metamorphosis	Cairo University, Princess Nourah bint Abdulrahman University, Taif University	Egypt, Pakistan, Saudi Arabia	—
16	Mutational analysis of Cadherin and v-ATPase genes in Pink bollworm and resistance towards Bt cotton through in-vitro insect feeding assay	University of Azad Jammu and Kashmir	Pakistan	—
17	Estimation of Sporulated Cell Concentration of Bacillus thuringiensis in a Batch Biochemical Reactor via Simple State Observers	Government College University, Universidad Autónoma del Estado de Hidalgo, Universidad de Guanajuato	Mexico, Pakistan	—
18	Actinobacteria as Potential Biopesticides	Kriya Biosys Pvt. Ltd., Vivekanandha Educational Institutions for Women	India	—
19	Microbial Biopesticides: Ecofriendly Alternatives for Crop Protection	Elizade University	Nigeria	—
20	Influence of Bacillus thuringiensis and Plant Extracts on Different Instars of Trilocha varians (Lepidoptera: Bombycidae) under Laboratory Conditions	Chinese Academy of Agricultural Sciences, King Saud University, Muhammad Nawaz	China, Morocco, Pakistan	—

No.	Citing paper	Citing institution(s)	Country	S2
		Shareef University of Agriculture		
21	An overview of the production and use of Bacillus	Shizuoka University	Japan	—
22	BIOLOGICAL CONTROL AGENTS AS SUSTAINABLE ALTERNATIVES TO CHEMICAL PESTICIDES	City of Scientific Research and Technological Applications, Fayoum University, United Arab Emirates University	Egypt, United Arab Emirates	—
23	The Combination Analysis Between Bacillus thuringiensis Sip1Ab Protein and Brush Border Membrane Vesicles in Midgut of Colaphellus bowringi Baly	Northeast Agricultural University	China	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).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Guru Nanak Dev University	India	SCImago #7421	7
University of Tehran	Iran	SCImago #1161 · THE 401–500 · QS 322	4
Chinese Academy of Agricultural Sciences	China	SCImago #213	4
Universidade Federal de Pelotas	Brazil	SCImago #5242	3
Tamil Nadu Agricultural University	India	SCImago #5836 · THE 1501+	3
Shenyang Agricultural University	China	SCImago #3140	3
King Saud University	Saudi Arabia	SCImago #264 · THE 251–300 · QS 143	3
Kansas State University	United States	SCImago #2082 · THE 601–800 · QS 901-950	3
Shandong University	China	SCImago #79 · THE 251–300 · QS =339	2
Banaras Hindu University	India	SCImago #3422 · THE 501–600 · QS 1001-1200	2
China Pharmaceutical University	China	SCImago #800 · THE 1001–1200	2
The Pennsylvania State University	United States	SCImago #200 · QS =82	2
Bahauddin Zakariya University	Pakistan	SCImago #4641 · THE 601–800 · QS 1201-1400	2
Alexandria University	Egypt	SCImago #2524 · THE 801–1000 · QS 781-790	2
Eternal University	India	—	2

Geographic distribution of citing authors

Country	Citing papers
China	31
India	26
United States	16
Brazil	7
Pakistan	7
Egypt	6
Iran	5
Poland	4
Saudi Arabia	4
Nigeria	4
South Korea	3
Morocco	3

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.

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	Purification of a trypsin inhibitor from Psoralea corylifolia seeds and its influence on developmental physiology of Bactrocera cucurbitae	12	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Toxic effects of purified phenolic compounds from Acacia nilotica against common cutworm	19	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Exploration of insecticidal potential of Cry protein purified from Bacillus thuringiensis VIID1	23	8 CFR 204.5(i)(3) — Outstanding Researcher