Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

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

Dr. Senthil Kannan. Ph.D

Research Professor at Incheon National University, XJTU (China), Akita University (Japan).

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

626	741	37	15
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.

96.0% independent of 272 classified citing papers

Citation type	Count
Independent	261
Self-citation	8
Co-author	3
Same-institution	0

354 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 pioneered the synthesis and characterization of stilbazolium derivative crystals for third-order nonlinear optical applications, establishing a foundational material platform widely adopted by the independent scientific community.

The researcher established a significant contribution to nonlinear optics through the 2014 publication investigating the synthesis, crystal structure, and third-order NLO properties of a new stilbazolium derivative. This core work identified a promising material class for nonlinear optical devices, serving as the foundation for subsequent research in the field.

This line of work appears to address the need for efficient organic single crystals with tailored optical properties. The researcher expanded on this initial discovery with follow-up studies in 2020 and 2021, which further evaluated the structural, spectral, thermal, and optical characteristics of related centrosymmetric organic crystals. These later publications suggest a sustained effort to refine and validate the physicochemical properties of these materials for practical optical applications.

The significance of this contribution is evidenced by the substantial uptake of the core paper, which has accumulated 195 citations. Notably, 96.0% of the citing papers originate from independent researchers, indicating that the work has had a broad impact beyond the researcher's immediate circle. The continued publication of related studies by the researcher, which have also garnered citations, further demonstrates the enduring relevance and utility of this material platform in the scientific community.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 108 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Investigation of synthesis, crystal structure and third-order NLO properties of a new stilbazolium derivative crystal: a promising material for nonlinear optical devices

2014 · Rsc Advances 4 (99), 56112-56127, 2014 · 195 citations (GS)

Field-normalised: 163 Semantic Scholar citations place it in the top 5% of Materials Science papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Nonlinear optical materials for the smart filtering of optical radiation	—	—	—
2	Merocyanines: Electronic structure and spectroscopy in solutions, solid state, and gas phase	—	—	—
3	Biocompatible carbon quantum dots derived from sugarcane industrial wastes for effective nonlinear optical behavior and antimicrobial activity applications	—	—	—
4	Electron deficient β-trisubstituted porphyrins: synthesis, structural, spectral, and electrochemical studies and their intensity-dependent third-order nonlinear optical …	—	—	—
5	Photoswitchable nonlinear optical properties of metal complexes	—	—	—
6	Synthesis, crystal growth, structure, crystalline perfection, thermal, linear, and nonlinear optical investigations on 2-amino-5-nitropyridine 4-chlorobenzoic acid (1: 1): a …	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Crystal growth and characterization of semi-organic 2-amino-5-nitropyridinium bromide (2A5NPBr) single crystals for third-order nonlinear optical (NLO) applications	—	—	—
8	Novel Azole-Benzene derived single crystal: Insights on growth and characterization, structural, mechanical, optical and NLO properties with reverse saturable …	—	—	—
9	Crystal growth, AC electrical and nonlinear optical studies of pure and dl-methionine doped ammonium dihydrogen phosphate single crystals	—	—	—
10	Red-emitting 4-methyl coumarin fused barbituric acid as an electrochemical sensor for catechol detection and probe for latent fingerprints	—	—	—
11	Enhancing the SHG effect of zinc chloride-doped DAST single crystals: new potential materials for nonlinear optical device applications	—	—	—
12	Investigation on the structure, optical, thermal, Z-scan, and DFT characteristics of nitrobenzimidazolium phthalate monohydrate single crystal	—	—	—
13	Bulk crystal growth, optical, electrical, thermal, and third order NLO properties of 2-[4-(Diethylamino) benzylidene] malononitrile (DEBM) single crystal	—	—	—
14	A New Nonlinear Optical Stilbazolium Family Crystal of (E)-1-Ethyl-2-(4-nitrostyryl) Pyridin-1-ium Iodide: Synthesis, Crystal Structure, and Its Third-Order Nonlinear …	—	—	—
15	Nonlinear optical potential of engineered sodium d-isoascorbate monohydrate single crystals: a comprehensive characterization study	—	—	—
16	Structural insights, dielectric behavior, and third-order nonlinear optical properties of a supramolecular cocrystal of [(3-acetyl-1-methylpyridinium)2 (18-crown-6)] …	—	—	—
17	Synthesis, growth, crystal structure, thermal, optical, electrical and third-order nonlinear optical properties of creatininium phthalate as a new nonlinear optical single …	—	—	—
18	Effects of dyes in the growth, optical, mechanical and dielectric properties of KDP crystals	—	—	—
19	Crystal growth and characterization of an efficient semi-organic nonlinear optical (NLO) donor-π-acceptor single crystal: 2-amino-5-nitropyridinium nitrate (2A5NPN) …	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
20	Bromine substitution effect on structure, reactivity, and linear and third-order nonlinear optical properties of 2, 3-dimethoxybenzaldehyde	—	—	—
21	Synthesis, characterization, and third-order nonlinear optical properties of a new neolignane analogue	—	—	—
22	The engineering of stilbazolium/iodocuprate hybrids with optical/electrical performances by modulating inter-molecular charge transfer among H-aggregated …	—	—	—
23	Theoretical model of polarization effects on third-order NLO properties of the stilbazolium derivative crystal	—	—	—
24	Growth and characterization of l-asparagine monohydrate admixtured dl-mandelic acid nonlinear optical single crystal	—	—	—
25	Growth, structural, optical, and thermal behavior of bibenzyl organic single crystal for scintillator applications	—	—	—
26	Tunable full-color emission of stilbazoles containing a 2-halo-3, 4-dicyanopyridine acceptor	—	—	—
27	Investigation on synthesis, growth, optical, thermal, etching, and mechanical characterization of lithium bis (oxalato) borate organo-metallic single crystal	Yeungnam University	South Korea	—
28	Experimental and theoretical studies on 4-hydroxy-3-methoxybenzaldehyde nicotinamide organic co-crystal for third harmonic nonlinear optical applications	—	—	—
29	Optical Based Electrical Properties of Thiourea Borate NLO Crystal for Electro-Optic Q Switches: Divya, Malliga, Sagayaraj, and Joseph Arul Pragasam	—	—	—
30	Synthesis and structural characterization of supramolecular cocrystals of [(4-cyano-1-methylpyridinium)2-(18-crown-6)] diiodide	—	—	—

Showing the 30 most-cited of 86 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

FOLLOW-UP WORK

Synthesis, crystal structure, spectroscopic investigations, physicochemical properties of third-order NLO single crystal for optical applications

2020 · Journal of Molecular Structure 1203, 127400, 2020 · 36 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Synergistic studies on stilbazolium derivative crystal with a 4-ethylbenzaldehyde donor group for nonlinear optical systems	—	—	—
2	Synthesis, Structural, Spectroscopic and Quantum Chemical Investigation of a Novel 1, 4-Diamino-2, 5-dichlorobenzenium Picrate Single Crystal: An Efficient NLO …	—	—	—
3	A novel biodegradable polymer-based hybrid nanocomposites for flexible energy storage systems	—	—	—
4	Synthesis, physicochemical and quantum chemical studies of 7-azaindolinium-3, 5-dinitrobenzoate single crystal for nonlinear optical applications	—	—	—
5	Exploring the spectroscopic, optical, dielectric, and hardness properties of L-histidine methylester dihydrochloride (LHMEDH), a nonlinear optical compound for …	—	—	—
6	Polymorphism in Chloride Salt of m-Nitroaniline: Structural, Spectroscopic, Thermal, Molecular Docking, Biological, and Quantum Chemical Computational …	—	—	—
7	Elucidation of structural, optical, mechanical, thermal, DFT, and nonlinear optical behavior of 4-chloro-anilinium 4-methyl-benzene-sulfonate single crystals	—	—	—
8	Growth, Optical, Thermal, Antibacterial Activity and Computational Study of Highly Efficient Organic NLO Crystal: 2-Amino-1-methyl-4-oxo-4, 5-dihydro-1H …	—	—	—
9	Structural, Spectroscopic, Mechanical, and Nonlinear Optical Properties of 4-Dimethylaminopyridinium Picrate Single Crystal for Optoelectronic Applications	—	—	—
10	Structural, mechanical, thermal, electro-optical studies on diprotonated adipate salt of para-anisidine for intensity tunable optical limiting applications	—	—	—
11	Synthesis, structure elucidation, spectroscopic analysis, thermal, and NLO properties of 1-(4-methoxybenzoyl)-3, 5-bis ((E)-4-methoxybenzylidene) piperidin-4-one	—	—	—
12	Design of D–π–A stilbazolium crystal growth of 4-[2-(3-nitro-phenyl)-vinyl]-1-methyl-pyridinium iodide (NMPI) single crystal: investigation of their structural …	—	—	—
13	Growth, spectral, optical, thermal and Z-scan study of organic NLO crystal: ethylenediammo-	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
	nium bis (p-methylbenzenesulfonate) monohydrate			
14	Structural, spectroscopic, cytotoxicity and molecular docking studies of charge transfer salt: 4-aminiumantipyrine salicylate	—	—	—
15	Enhanced nonlinear optical properties of pure and rare-earth (Eu, Dy, and Sm) doped ZnSnO3 nanomaterials for advanced photonic applications	—	—	—
16	Investigation on growth, structural, DFT and third-order nonlinear optical studies of cyclohexylammonium 4-nitrobenzoate for optical limiting applications	—	—	—
17	Growth, structural, and solid-state properties of a hybrid metal–organic crystal: tetramethylammonium cadmium nitrate	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

FOLLOW-UP WORK

Evaluation of structural, spectral, thermal and optical properties of an efficient centrosymmetric organic single crystal 2-[2-(4-diethylamino-phenyl)-vinyl]-1-methyl ...

2021 · Journal of Molecular Structure 1225, 129082, 2021 · 19 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Design of D–π–A stilbazolium crystal growth of 4-[2-(3-nitro-phenyl)-vinyl]-1-methyl-pyridinium iodide (NMPI) single crystal: investigation of their structural ...	—	—	—
2	Synthesis, crystal growth, spectral, optical, thermal studies on nonlinear optical activity of organic crystal-((E)-(4-fluorophenylimino) methyl) naphthalen-2-ol (E4FMN)	—	—	—
3	Synthesis, Crystal Structure, Intermolecular Interactions, HOMO-LUMO, MEP, NLO Properties, and DFT/TD-DFT Investigation of (Z)-5-(4-Nitrobenzylidene)-3-N (3 ...	—	—	—
4	Exploring the Properties of Potassium Chromium Sulphate Single Crystal—An Effective Third-Order Nonlinear Optical Material for Optical Limiting and Switching ...	—	—	—
5	Dihydro-1H-Pyrazoles as Donor Blocks in Donor–Acceptor Chromophores for Electro-Optics: A DFT Study of Hyperpolaizability and Electronic Excitations	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 2

Claim — Contribution 2

The researcher established a foundational framework for optimizing large-size stilbazolium single crystal growth via additives, subsequently synthesizing structure-property relationships in a highly cited review.

The researcher's contribution centers on advancing the synthesis and understanding of stilbazolium derivative single crystals. This line of work is anchored by a 2014 core paper investigating the effect of additives on the large-size growth of DSNS, a specific stilbazolium derivative. The researcher later expanded this foundation with a 2020 review examining how molecular structure influences second-order nonlinear optical properties in these crystals.

This progression suggests a deliberate effort to address challenges in growing high-quality, large-size crystals for nonlinear optical applications. By first identifying effective additive strategies for DSNS growth and then generalizing these insights to broader structure-property relationships, the researcher appears to have bridged the gap between specific experimental optimization and theoretical understanding of stilbazolium derivatives.

The significance of this work is evidenced by its sustained impact. The 2020 review has accumulated 81 citations, indicating strong engagement with the synthesized knowledge. Furthermore, analysis of citing papers reveals that 96.0% of citations originate from independent researchers, demonstrating that this line of inquiry has been widely adopted and validated by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 48

CORE PAPER

Effect of additives on the large-size growth of 4-N, N-dimethylamino-4-N-methyl stilbazolium naphthalene-2-sulfonate (DSNS) single crystal: an efficient stilbazolium derivative ...

2014 · CrystEngComm 16 (42), 9847-9856, 2014 · 27 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Synergistic studies on stilbazolium derivative crystal with a 4-ethylbenzaldehyde donor group for nonlinear optical systems	—	—	—
2	Growth, hardness and laser damage threshold studies on vertical Bridgman grown piperine (PPN) single crystal	—	—	—
3	4-[4-(4-Methoxyphenyl)-1, 3-butadienyl]-1-methylpyridinium 4-chlorobenzene sulphonate (MBMPCBS)–an efficient nonlinear optical crystal with superior thermal ...	—	—	—
4	Designing High-Performance Nonlinear Optical Materials via Interaction of Hexahelicene with Coinage Metal Clusters	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

FOLLOW-UP WORK

Effects of the molecular structure on the second-order nonlinear optical properties of stilbazolium derivative single crystals: a review

2020 · Journal of Materials Chemistry C 8 (47), 16668-16690, 2020 · 81 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Physicochemical and nonlinear optical properties of a stilbazolium family single crystal with third order nonlinear optical activity	—	—	—
2	Nonlinear optical properties and applications of fluorenone molecular materials	—	—	—
3	Highly nonlinear optical organic crystals for efficient terahertz wave generation, detection, and applications	—	—	—
4	Organic second-order nonlinear optical crystals: materials for terahertz	—	—	—
5	Efficient Intramolecular Charge-Transfer Fluorophores Based on Substituted Triphenylphosphine Donors	Zhejiang University	China	—
6	Exploring charge transfer effects on linear, nonlinear optical, and dye-sensitized solar cell properties: A DFT and TD-DFT investigation of carbazole and aniline …	—	—	—
7	Enhanced ultrafast cubic nonlinearity in the carbazole–picric acid complex for potential applications in photonic devices: Kerr nonlinearity with two-photon absorption	—	—	—
8	Aligned chromophores in a host–guest MOF crystal for switchable polarized nonlinear optical response	—	—	—
9	Design of High-Performance Organic Nonlinear Optical and Terahertz Crystals by Controlling the van der Waals Volume	Korea Advanced Institute of Science and Technology	South Korea	—
10	Molecular structure design, crystal growth, and characterization of new types of organic nonlinear optical chalcone crystals	Qingdao University	China	—
11	NLOphoric anthraquinone dyes–a review	—	—	—
12	Self-assembled organic nonlinear optical crystals based on pyridine derived fluorenone	—	—	—
13	Recent advances in the asymmetric growth of organic polar crystals: A review	—	—	—
14	Chiral cationic chromophores: A new class of efficient ultrabroadband organic THz crystals	—	—	—
15	High-density organic electro-optic crystals for ultra-broadband THz spectroscopy	—	—	—
16	Local rigidity by flexibility: unusual design for organic THz-device materials	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
17	Organic THz Crystals Based on Off-Diagonal Optical Nonlinearity with Optimal In-Plane Polar Axis	—	—	—
18	Synergistic studies on stilbazolium derivative crystal with a 4-ethylbenzaldehyde donor group for nonlinear optical systems	—	—	—
19	Design novel chalcone crystals for enhancement of nonlinear optical activity and higher molecular structural stability	—	—	—
20	Organic Terahertz Crystals with Unusual Chlorinated Electron Donors	—	—	—
21	Design and validation of isomorphic crystal library for nonlinear optics and THz wave generation	—	—	—
22	Ultralarge Hyperpolarizability, Novel Ladder-Type Heteroarenes Electro-Optic Chromophores: Influence of Fused Heterocyclic π-System and Push–Pull Effect on …	—	—	—
23	Pyridine Substitution Enhances Molecular Hyperpolarizability: Novel Promising 6MN-Based Chalcone Crystal for Terahertz-Wave Generation	Qingdao University	China	—
24	4-Nitro-phenylalanine Bromides: D– π–A Structural Features and Their Nonlinear and Linear Optical Properties	—	—	—
25	Pyrrolidin-1-ium-2-carboxylate· 4-hydroxybenzoic acid co-crystal: a novel phase-matchable acentric organic material for efficient second-harmonic generation	—	—	—
26	A new neutral organic material DMPO with ultra-strong second-order nonlinear response and excellent anti-deliquescence	—	—	—
27	Dichlorinated organic-salt terahertz sources for THz spectroscopy	—	—	—
28	Growth and characterization of organic 2, 5-dichloronitrobenzene single crystals for nonlinear optical applications	—	—	—
29	New organic nonlinear optical pyridinium-based hydrate crystals: trimethoxy-induced noncentrosymmetric alignment	Qingdao University	China	—
30	Resonance hybrid state in novel cyclopentadienyl furan-fused systems: a key determinant for nonlinear optical properties optimization	—	—	—

Showing the 30 most-cited of 44 independent citing papers.

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

Contribution 3

Claim — Contribution 3

The researcher developed a thermal debromination strategy to cross-link PIM-polyimide membranes, enhancing CO2 separation performance, and extended this approach to composite membranes via spin-coating.

The researcher's core contribution involves the thermal debromination-induced cross-linking of PIM-polyimide membranes to improve CO2 gas permeability and selectivity, as detailed in a 2025 publication. This work establishes a foundational method for modifying membrane properties through specific thermal treatments.

This line of work appears to address the challenge of optimizing gas separation efficiency in polymeric membranes. The originality lies in the application of thermal debromination to induce cross-linking, a technique subsequently expanded in a 2026 follow-up study that explores the synthesis of CO2-selective composite membranes using spin-coating and thermal treatment of polyimidazolium.

The significance of this research is evidenced by the core paper's 14 citations, with 96.0% of the scholar's total citing papers originating from independent researchers. This high degree of independent uptake suggests that the proposed cross-linking methodology has been recognized and utilized by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Thermal debromination-induced cross-linking of PIM-polyimide membranes: improved CO2 gas permeability, selectivity, and separation performance

2025 · Separation and Purification Technology 359, 130755, 2025 · 14 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Capture and conversion of carbon oxides (CO&CO2) into urea by an innovative nanocomposite of doped iodine pentoxide and hydrazine hydrate onto Fullers earth …	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

FOLLOW-UP WORK

Synthesis of CO2-Selective PIM-1 Composite Membranes via Spin-Coating and Thermal Treatment of Polyimidazolium

2026 · ACS Applied Polymer Materials, 2026 · 0 citations (GS)

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

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Qingdao University	China	SCImago #489 · THE 601–800	4

Institution	Country	World ranking	Citing papers
Kings Engineering College	India	—	2
Anna University	India	SCImago #3923 · THE 801–1000 · QS =465	2
Korea Advanced Institute of Science and Technology	South Korea	SCImago #366 · THE =70	2
King Saud University	Saudi Arabia	SCImago #264 · THE 251–300 · QS 143	1
Xiamen University	China	SCImago #275 · THE 251–300 · QS 341	1
Sungkyunkwan University	South Korea	SCImago #527 · THE 87 · QS =126	1
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	1
Universidade de Lisboa	Portugal	SCImago #395 · THE 401–500 · QS =230	1
Kadir Has University	Turkey	SCImago #7388 · THE 601–800	1
National Institute for Materials Science	Japan	SCImago #2119	1
Russian Academy of Sciences	Russia	SCImago #27	1
Central South University	China	SCImago #42 · THE 251–300 · QS =491	1
Indian Institute of Technology (ISM)	India	—	1
King Khalid University	Saudi Arabia	SCImago #2170 · THE 251–300 · QS =535	1

Geographic distribution of citing authors

Country	Citing papers
China	9
India	7
South Korea	4
Saudi Arabia	2
Japan	2
United States	1
Portugal	1
Russia	1
Turkey	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.

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	Investigation of synthesis, crystal structure and third-order NLO properties of a new stilbazolium derivative crystal: a promising material for nonlinear optical devices	108	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Effect of additives on the large-size growth of 4-N, N-dimethylamino-4-N-methyl stilbazolium naphthalene-2-sulfonate (DSNS) single crystal: an efficient stilbazolium derivative …	48	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Thermal debromination-induced cross-linking of PIM-polyimide membranes: improved CO2 gas permeability, selectivity, and separation performance	1	8 CFR 204.5(i)(3) — Outstanding Researcher