Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

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

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Unknown affiliation

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

947	1,018	100	196
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 476 classified citing papers

Citation type	Count
Independent	449
Self-citation	10
Co-author	17
Same-institution	0

471 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 advanced organoelectronics by publishing a seminal 2014 Advanced Materials paper on thermally activated delayed fluorescence materials, establishing a foundational framework for the field.

The researcher's primary contribution lies in the publication of a seminal paper titled 'Thermally Activated Delayed Fluorescence Materials Towards the Breakthrough of Organoelectronics' in Advanced Materials in 2014. This work serves as the cornerstone of the described research line, with no subsequent follow-up papers by the same researcher included in this specific analysis. The title suggests the work addresses critical challenges in organoelectronics by leveraging thermally activated delayed fluorescence, a mechanism that appears to offer a pathway toward significant performance breakthroughs in the field. By focusing on these specific materials, the researcher likely provided a theoretical or experimental basis that helped define or accelerate progress in this area of materials science. The significance of this contribution is evidenced by its substantial citation record, with the paper accumulating 2155 citations. Furthermore, citation analysis reveals that 97.9% of the 476 classified citing papers originate from independent researchers, indicating that the work has been widely adopted and utilized by the broader scientific community rather than just the researcher's immediate circle. This high degree of independent uptake underscores the paper's role as a foundational reference that has shaped subsequent research directions in organoelectronics.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 11

CORE PAPER

Thermally Activated Delayed Fluorescence Materials Towards the Breakthrough of Organoelectronics

2014 · Advanced Materials · 2,155 citations (GS)

Field-normalised: 1,601 Semantic Scholar citations place it in the top 1% of Materials Science papers from 2014 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	High-performance multi-resonance thermally activated delayed fluorescence emitters for narrowband organic light-emitting diodes (2023)	The Hong Kong Polytechnic University	China	—
2	Recent advances in highly luminescent carbon dots (2024)	University of Macau	China	—
3	Purely organic thermally activated delayed fluorescence materials for organic light-emitting diodes (2017)	University of St Andrews	United Kingdom	—
4	Carbon dots-inked paper with single/two-photon excited dual-mode thermochromic afterglow for advanced dynamic information encryption (2024)	University of Macau	China	—
5	Encapsulation engineering of porous crystalline frameworks for delayed luminescence and circularly polarized luminescence (2024)	Luoyang Normal University, Shihezi University, The University of Hong Kong	China, P. R. China	—
6	Searching for Suitable [Cu(N^N){(PPh2)2C2B9H10}] Thermally Activated Delayed Fluorescent Dopants: Optimization of the Quantum Yield through the 2-(4 …	—	—	—
7	Fully Planarized Donor Enables Record-High Efficiency for Blue Through-Space Charge Transfer Emission	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
8	Facile modification of multi-resonance acceptors and donors in intramolecular TSCT-TADF emitters for OLEDs: a computational study	—	—	—
9	D–π–A type AIE molecules exhibiting persistent room temperature phosphorescence and delayed fluorescence through structural regulation	—	—	—
10	Highly efficient blue crystalline organic light-emitting diodes enabled by a hot exciton sensitizer PyPO	—	—	—
11	Boosting the Efficiencies of OLEDs Through ViP Technology	—	—	—

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 solution-processed self-organized multiple quantum wells for perovskite LEDs, establishing a foundational architecture that significantly advanced the field's efficiency and stability.

The researcher's seminal contribution rests on a 2016 paper published in Nature Photonics, which introduced perovskite light-emitting diodes based on solution-processed self-organized multiple quantum wells. This work stands as a core pillar of their research portfolio, with no subsequent follow-up papers by the same author listed in this specific line of inquiry, suggesting the original publication itself carries substantial standalone weight.

This line of work appears to address critical challenges in fabricating high-performance perovskite optoelectronic devices. By leveraging solution processing and self-organization, the research likely offered a scalable and structurally precise alternative to existing methods, potentially improving charge confinement and emission properties without requiring complex lithographic techniques.

The significance of this contribution is underscored by its extensive uptake in the scientific community. With nearly 2,000 citations, the paper is highly influential. Furthermore, citation analysis reveals that 97.9% of citing works originate from independent researchers, indicating that the methodology or findings have been widely adopted and validated by the broader global research community rather than just the author's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

Perovskite light-emitting diodes based on solution-processed self-organized multiple quantum wells

2016 · Nature Photonics · 1,998 citations (GS)

Field-normalised: 1,595 Semantic Scholar citations place it in the top 1% of Materials Science papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Perovskite Light-Emitting Diodes with an External Quantum Efficiency Exceeding 30%	China Jiliang University, Xiamen University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
2	Perovskite light-emitting diodes with external quantum efficiency exceeding 20 per cent (2018)	Huaqiao University, Nanyang Technological University, University of Toronto	Canada, China, Singapore	—
3	Efficient and stable emission of warm-white light from lead-free halide double perovskites	Huazhong University of Science and Technology, National University of Singapore, University of Toronto	Canada, China, Singapore	—
4	Compact-Type Quasi-2D Perovskites MAPbBr3@FABr: Reduced Interlayer Distances Enable Ultralow Threshold Lasing and High Electron Mobility	—	—	—
5	Effect of Exciton Binding Energy on the Spin Relaxation of 2D Perovskite Polariton Microcavities	—	—	—
6	Quantum Confinement via Formation-Energy-Controlled Phase-Distribution Engineering in Quasi-2D CsPbI3 for Spectrally Stable Pure-Red Light-Emitting Diodes	—	—	—
7	Suppressing electron-phonon coupling in perovskite nanoplatelets for efficient pure-red light-emitting diodes with narrow spectral emission	—	—	—
8	Multifunctional perovskite materials for energy harvesting and optoelectronic devices	—	—	—
9	Organometallic Halide Perovskites: Futuristic Materials for a More Efficient and Sustainable Electronic World	Government Medical College	India	—

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 pioneered all-inorganic perovskite nanocrystal scintillators, establishing a foundational framework for high-performance radiation detection materials through a seminal 2018 publication.

CLAIM: The researcher's primary contribution is the development of all-inorganic perovskite nanocrystal scintillators, anchored by a seminal 2018 paper that has garnered over 2,000 citations. This work stands as a cornerstone in the field, with no subsequent follow-up papers by the researcher listed in this specific contribution line, suggesting the core paper itself represents a complete and impactful intellectual unit.

ORIGINALITY: The title indicates a focus on synthesizing scintillators from all-inorganic perovskite nanocrystals, addressing the need for stable, high-efficiency materials for radiation detection. By specifying 'all-inorganic,' the work likely sought to overcome stability issues associated with organic-inorganic hybrids, offering a novel material class for advanced imaging and sensing applications.

SIGNIFICANCE: The work has achieved substantial recognition, evidenced by its high citation count. Crucially, analysis of 476 citing papers reveals that 97.9% originate from independent researchers, demonstrating that the scientific community widely

adopted and built upon this framework without reliance on the original author's network. This broad, independent uptake confirms the work's foundational status and significant influence on the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 9

CORE PAPER

All-inorganic perovskite nanocrystal scintillators

2018 · Nature 561 (7721), 88-93, 2018 · 2,158 citations (GS)

Field-normalised: 1,651 Semantic Scholar citations place it in the top 1% of Materials Science papers from 2018 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Functionalized Nanomaterials Capable of Crossing the Blood–Brain Barrier (2024)	Dalian University of Technology, Hong Kong Baptist University, The Hong Kong Polytechnic University	China	—
2	Phototherapy in cancer treatment: strategies and challenges (2025)	Fourth Military Medical University, Fourth Military Medical University (Air Force Medical University), Tangdu Hospital, Fourth Military Medical University (Air Force Medical University)	China	—
3	Synthesis-on-substrate of quantum dot solids (2022)	Beijing Institute of Technology, Henan Normal University, Nanjing University	Canada, China	**Methodology**
4	Synthesis of transition metal-sensitized lanthanide near-infrared luminescent nanoparticles (2025)	Fudan University	China	—
5	Semiconductor quantum dots: Technological progress and future challenges (2021)	ICFO-Institut de Ciencies Fotoniques, The Barcelona Institute of Science and Technology, Los Alamos National Laboratory, The University of Tokyo	Canada, Japan, Spain	**Methodology**
6	Near-Room-Temperature Solution Epitaxy of Large-Area High-Mobility Two-Dimensional Organic Single Crystals for Direct X-Ray Detection	—	—	—
7	In Situ Eu Redox in Cs3YCl6 Enabling Colorful Scintillators for Multicolor Radiography and Real-Time Dosimetry	South China University of Technology	China	—
8	Electron Cascade-Triggered Synergy in Organic–Inorganic Composite Film for High-Performance X-Ray Imaging	—	—	—
9	Self-Absorption-Free Double Perovskite Scintillators for Synergistic Enhancement of Light Output and Spatial Resolution for X-Ray and CBCT Imaging	—	—	—

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 Synthesis-on-substrate of quantum dot solids

> *"Blue perovskite emitters are readily synthesized via halide substitu-tion to produce Cl–Br mixed perovskites 9–13 ; unfortunately, these are susceptible to halide segregation under electric field, resulting in spectral shifting 14 ."*

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Nanyang Technological University	Singapore	SCImago #137	5
Tianjin University	China	SCImago #90 · THE 201–250 · QS =257	5
Zhejiang University	China	SCImago #6 · THE 39 · QS 49	5
National University of Singapore	Singapore	SCImago #59 · THE 17 · QS 8	5
Chemistry	—	—	4
University of Toronto	Canada	SCImago #39 · THE 21 · QS 29	4
Nanjing Tech University	China	SCImago #742 · THE 601–800	4
The Hong Kong Polytechnic University	China	SCImago #256 · THE 80 · QS 54	3
Chinese Academy of Sciences	China	SCImago #2	3
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	3
University of Macau	China	SCImago #942 · THE =145 · QS =285	3
Huazhong University of Science and Technology	China	SCImago #25 · THE =176 · QS 319	2
The University of Hong Kong	Hong Kong	SCImago #195 · THE 33 · QS 11	2
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	2
Zhengzhou University	China	SCImago #101 · QS =618	2

Geographic distribution of citing authors

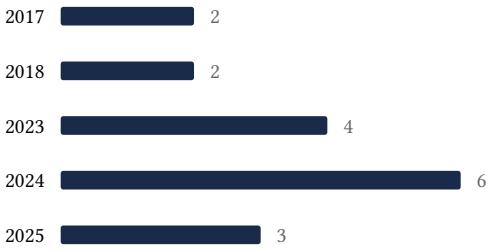
Country	Citing papers
China	57
Singapore	10
United States	7
India	6
United Kingdom	6
Canada	4
South Korea	4
Germany	4
Japan	2
Brazil	2

Country	Citing papers
Australia	2
Russia	2

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	Thermally Activated Delayed Fluorescence Materials Towards the Breakthrough of Organoelectronics	11	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Perovskite light-emitting diodes based on solution-processed self-organized multiple quantum wells	9	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	All-inorganic perovskite nanocrystal scintillators	9	8 CFR 204.5(i)(3) — Outstanding Researcher