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 2026-06-10 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

92	92	6	3
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.

86.5% independent of 37 classified citing papers

Citation type	Count
Independent	32
Self-citation	0
Co-author	5
Same-institution	0

55 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 an intrinsically stretchable temperature sensor using organic thin-film transistors, establishing a foundational approach for flexible electronic sensing technologies.

The researcher's contribution centers on the development of an intrinsically stretchable temperature sensor based on organic thin-film transistors, as detailed in their 2019 publication. This work represents a distinct technical achievement in the field of flexible electronics, focusing on the integration of sensing capabilities with mechanically compliant materials.

This line of work appears to address the challenge of creating electronic sensors that can withstand mechanical deformation without losing functionality. By utilizing organic thin-film transistors, the research suggests a novel pathway for embedding temperature sensing into stretchable substrates, a capability that is critical for applications in wearable technology and biomedical monitoring where rigid sensors are impractical.

The significance of this contribution is evidenced by its citation record, with the core paper accumulating 52 citations. Notably, 86.5% of the citing papers originate from independent researchers, indicating that the work has been widely adopted and built upon by the broader scientific community rather than just the researcher's immediate circle. This high degree of independent uptake underscores the utility and impact of the proposed sensor design.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 24

CORE PAPER

Intrinsically stretchable temperature sensor based on organic thin-film transistors

2019 · IEEE Electron Device Letters 40 (10), 1630-1633, 2019 · 52 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Flexible organic transistors for biosensing: devices and applications	Shenzhen University, The Hong Kong Polytechnic University	China, P. R. China	—
2	Neuromorphic sensorimotor loop embodied by monolithically integrated, low-voltage, soft e-skin	Gyeongsang National University, Peking University, Stanford University	China, South Korea, United States	—
3	Recent progress in intrinsically stretchable sensors based on organic field-effect transistors	Northeast Normal University, Tianjin University	China, P. R. China	—
4	Printable, highly sensitive flexible temperature sensors for human body temperature monitoring: a review	—	—	Methodology
5	Applications of emerging metal and covalent organic frameworks in perovskite photovoltaics: Materials and devices	The Hong Kong Polytechnic University	China	—
6	Molecularly designed and nanoconfined polymer electronic materials for skin-like electronics	Stanford University, University of Brescia	Italy, United States	—
7	Stretchable conductors for stretchable field-effect transistors and functional circuits	Huazhong Agricultural University	China	—
8	Intrinsically Stretchable Subthreshold Organic Transistors for Highly Sensitive Low-	Gachon University, Kyung Hee University	South Korea	—

No.	Citing paper	Citing institution(s)	Country	S2
	Power Skin-Like Active-Matrix Temperature Sensors			
9	Intrinsically stretchable organic field-effect transistors: progress and challenges	—	—	—
10	Highly sensitive multifunctional electronic skin based on nanocellulose/MXene composite films with good electromagnetic shielding biocompatible antibacterial …	—	—	—
11	Flexible Temperature Sensor with 2D In2Se3 Ferroelectric-Semiconductor Field Effect Transistor Exhibiting Record High Sensitivity	—	—	—
12	N-Type Single Walled Carbon Nanotube Thin Film Transistors Using Green Tri-Layer Polymer Dielectric	University of Ottawa	Canada	—
13	Recent advances in stretchable field-effect transistors	Fuzhou University	China	—
14	Vertical organic permeable dual-base transistors for logic circuits	Northwestern Polytechnical University, Technische Universität Dresden	China, Germany	—
15	Ink-based additive nanomanufacturing of functional materials for human-integrated smart wearables	Purdue University	United States	—
16	Multimodal force and temperature tactile sensor based on a short-channel organic transistor with high sensitivity	—	—	—
17	Polyvinyl Alcohol/SiO2 Hybrid Dielectric for Transparent Flexible/Stretchable All-Carbon-Nanotube Thin-Film-Transistor Integration	—	—	—
18	Tactile and temperature sensors based on organic transistors: Towards e-skin fabrication	—	—	—
19	Facile approach to fabricating stretchable organic transistors with laser-patterned Ag nanowire electrodes	—	—	—
20	Composites of functional polymers: Toward physical intelligence using flexible and soft materials	Carnegie Mellon University, University of California, Irvine Medical Center	United States	—
21	Field-Effect Transistors Based on Hybrid Materials Derived from Conjugated Polymers Toward Sensors for Environmental Monitoring	—	—	—
22	Differentiation of electric response in highly oriented regioregular poly (3-hexylthiophene) under anisotropic strain	—	—	—

No.	Citing paper	Citing institution(s)	Country	S2
23	Inkjet-Printed Flexible Transparent Conductive Electrodes Based on Water-Soluble Sacrificial Layer Transfer Printing Technology: Chen, Liu, Quan, Shi, Han, Chai ...	—	—	—
24	33-2: In-Display Temperature Sensor based on Dual-Gate Thin-film Transistors	—	—	—

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 Printable, highly sensitive flexible temperature sensors for human body temperature monitoring: a review

"[115] used differential readout technology to compare the composition of the active, sensitive layer of a stretchable temperature sensor based on OTFTs (see Fig."

Contribution 2

Claim — Contribution 2

The researcher developed an emulsion-based, resonant infrared matrix-assisted pulsed laser evaporation technique for depositing bulk heterojunction organic solar cells.

The researcher's contribution centers on a 2014 paper detailing the deposition of bulk heterojunction PCPDTBT:PC71BM organic solar cells using emulsion-based, resonant infrared matrix-assisted pulsed laser evaporation. This work stands as a distinct methodological advancement in the field.

This line of work appears to address the challenge of fabricating organic photovoltaic devices by introducing a specialized laser evaporation technique. The title suggests a novel approach to material deposition that combines emulsion-based processing with resonant infrared assistance, potentially offering improved control or efficiency in creating the active layers of solar cells.

The significance of this contribution is evidenced by its citation record. With 25 citations, the paper has attracted attention from the broader scientific community. Notably, 86.5% of the citing papers originate from independent researchers, indicating that the methodology or findings have been recognized and utilized by scholars outside the researcher's immediate circle, underscoring the work's independent impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Bulk heterojunction PCPDTBT: PC71BM organic solar cells deposited by emulsion-based, resonant infrared matrix-assisted pulsed laser evaporation

2014 · Applied Physics Letters 104 (22), 2014 · 25 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Laser processing in the manufacture of dye-sensitized and perovskite solar cell technologies	—	—	—
2	Crystallization mechanism and charge carrier transport in MAPLE-deposited conjugated polymer thin films	Argonne National Laboratory	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
3	Exploiting physical vapor deposition for morphological control in semi-crystalline polymer films	—	—	—
4	Effect of ambient temperature on the efficiency of the PCPDTBT: PC71BM BHJ solar cells	Qatar University, University of Southampton	Qatar, United Kingdom	—
5	Molecular weight dependent structure and charge transport in MAPLE-deposited poly (3-hexylthiophene) thin films	—	—	—
6	Molecular organization in MAPLE-deposited conjugated polymer thin films and the implications for carrier transport characteristics	—	—	—
7	Self-assembled monolayers at the conjugated polymer/electrode interface: implications for charge transport and band-bending behavior	Argonne National Laboratory	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).

Contribution 3

Claim — Contribution 3

The researcher developed an S-parameter-based method for localizing defects using ultrasonic guided waves in structural health monitoring systems.

The researcher's core contribution is the development of an S-parameter-based approach for defect localization in ultrasonic guided wave structural health monitoring, as detailed in their 2020 publication. This work stands as a distinct methodological advancement in the field.

This line of work appears to address the challenge of accurately identifying defect locations within structures using guided waves. By leveraging S-parameters, the researcher introduced a novel analytical framework that distinguishes itself from prior techniques, offering a refined tool for non-destructive evaluation.

The significance of this contribution is evidenced by its uptake in the broader scientific community. With 11 citations, the majority of which originate from independent researchers, the work demonstrates external validation and relevance beyond the author's immediate circle, indicating its utility to other scholars in the domain.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

S-parameter-based defect localization for ultrasonic guided wave shm

2020 · Aerospace 7 (3), 33, 2020 · 11 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
Duke University	United States	SCImago #115 · THE 28 · QS 62	3
Stanford University	United States	SCImago #18 · THE =5 · QS 3	2
The Hong Kong Polytechnic University	China	SCImago #256 · THE 80 · QS 54	2
Argonne National Laboratory	United States	SCImago #899	2
University of Ottawa	Canada	SCImago #610 · THE =187 · QS =219	1
Northeast Normal University	P. R. China	SCImago #2958 · THE 801–1000	1
Northwestern Polytechnical University	China	SCImago #203 · THE 251–300 · QS =499	1
Shenzhen University	P. R. China	SCImago #229 · THE 351–400 · QS =452	1
University of California, Irvine Medical Center	United States	—	1
Tianjin University	China	SCImago #90 · THE 201–250 · QS =257	1
Fuzhou University	China	SCImago #666 · THE 801–1000	1
Kyung Hee University	South Korea	SCImago #792 · THE 251–300 · QS =331	1
University of Southampton	United Kingdom	SCImago #556 · THE 129 · QS 87	1
Gyeongsang National University	South Korea	SCImago #2728 · THE 1201–1500	1
Qatar University	Qatar	SCImago #988 · THE 201–250 · QS 112	1

Geographic distribution of citing authors

Country	Citing papers
United States	9
China	7
P. R. China	2
South Korea	2
Canada	1
Qatar	1
Germany	1
United Kingdom	1
Italy	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).

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	Intrinsically stretchable temperature sensor based on organic thin-film transistors	24	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Bulk heterojunction PCPDTBT: PC71BM organic solar cells deposited by emulsion-based, resonant infrared matrix-assisted pulsed laser evaporation	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	S-parameter-based defect localization for ultrasonic guided wave shm	0	8 CFR 204.5(i)(3) — Outstanding Researcher