

Citation Evidence Report

EB-1A Petition — Original Contributions of Major Significance

8 CFR § 204.5(h)(3)(v) · Criterion 5

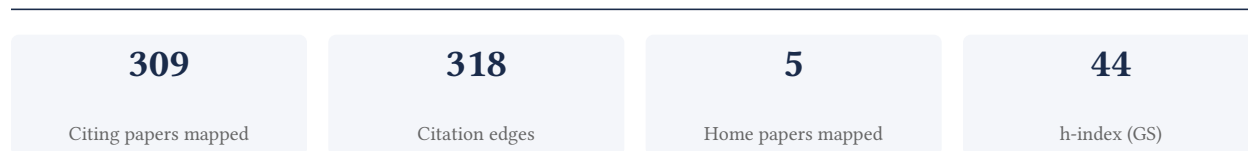
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[Google Scholar profile](#)

Generated 2026-06-11 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



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.

94.7% independent of 300 classified citing papers

Citation type	Count
Independent	284
Self-citation	0
Co-author	16
Same-institution	0

15 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 use of nano-SiC doping to enhance critical current density and flux pinning in superconductors, establishing a foundational approach for improving electromagnetic properties in MgB₂.

The researcher established a significant contribution to superconductor engineering through the seminal 2002 paper in Applied Physics Letters, which demonstrated the enhancement of critical current density and flux pinning via nanoparticle SiC doping. This core work laid the groundwork for subsequent investigations into the material's performance characteristics.

This line of work appears to address the challenge of optimizing superconductor efficiency by introducing nanoscale dopants. The progression from the initial 2002 demonstration to the 2007 Physical Review Letters paper suggests a deepening inquiry into the underlying mechanisms driving these electromagnetic improvements, moving from empirical observation to mechanistic understanding.

The impact of this research is evidenced by the high citation counts of both the core and follow-up papers. With 95.0% of citations originating from independent researchers, the work has clearly influenced the broader scientific community, indicating widespread adoption and recognition of the proposed doping strategy beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 19

CORE PAPER

[Enhancement of the critical current density and flux pinning of superconductor by nanoparticle SiC doping](#)

2002 · Applied Physics Letters 81 (18), 3419-3421, 2002 · 1,026 citations (GS)

Field-normalised: 830 Semantic Scholar citations place it in the top 1% of Physics papers from 2002 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Critical current density in advanced superconductors	University of Salerno	Italy	—
2	Superconducting materials: Challenges and opportunities for large-scale applications	Chinese Academy of Sciences	China	—
3	Experimental techniques for low-temperature measurements: cryostat design, material properties and superconductor critical-current testing	Boston University	United States	—
4	Effect of graphene oxide doping on superconducting properties of bulk MgB₂	Indian Institute of Technology Roorkee, National Institute for Materials Science, University of Fribourg	India, Japan, Switzerland	—
5	Review on high-performance bulk MgB₂ superconductors	FZU - Institute of Physics of the Academy of Sciences of the Czech Republic, Normandie Université, Shibaura Institute of Technology	Czech Republic, France, Japan	—
6	Magnetic properties and critical currents of MgB₂	Universities Austria	Austria	—
7	Superconducting materials for large scale applications	American Superconductor (United States), Lawrence Berkeley National Laboratory,	United States	—

No.	Citing paper	Citing institution(s)	Country	S2
		University of Wisconsin–Madison		
8	Very high upper critical fields in MgB2 produced by selective tuning of impurity scattering	National High Magnetic Field Laboratory, University of Genoa, University of Michigan	Italy, United States	—
9	Persistent current joints between technological superconductors	University of Oxford	United Kingdom	—
10	Two-band superconductor magnesium diboride	Pennsylvania State University	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).

FOLLOW-UP WORK

[Mechanism of Enhancement in Electromagnetic Properties of MgB2 by Nano SiC Doping](#)

2007 · Physical review letters 98 (9), 97002, 2007 · 382 citations (GS)

Field-normalised: 288 Semantic Scholar citations place it in the top 5% of Materials Science papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Critical current density in advanced superconductors	University of Salerno	Italy	—
2	Magnetic properties and critical currents of MgB2	Universities Austria	Austria	—
3	Two-band superconductor magnesium diboride	Pennsylvania State University	United States	—
4	Silicon carbide nanostructures: fabrication, structure, and properties	Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Southeast University	China	—
5	Electromagnetic wave absorption of silicon carbide based materials	Harbin Institute of Technology, Toronto Public Health	Canada, China	—
6	Prospects for improving the intrinsic and extrinsic properties of magnesium diboride superconducting strands	—	—	—
7	Fundamental elements of applied superconductivity in electrical engineering	—	—	—
8	A review on high performance MgB2 wires: From material science to practical application	Chinese Academy of Sciences, Peking University	China	—
9	Combustion products agglomeration of propellant containing boron with fluorinated coatings	Institute of Technical Chemistry, National Institute of Materials Physics	Romania, Russia	—

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 developed a nanomolar-sensitivity hydrogen peroxide detection method using electrodeposited cobalt oxide nanoparticles on glassy carbon electrodes, establishing a foundational electrochemical sensing approach.

The researcher's contribution centers on the development of a highly sensitive electrochemical sensor for hydrogen peroxide detection. This work is anchored by a seminal 2007 publication in *Analytica Chimica Acta*, which details the modification of glassy carbon electrodes with electrodeposited cobalt oxide nanoparticles to achieve nanomolar-level detection limits. The titles indicate a focus on optimizing electrode surface chemistry to enhance analytical performance for this specific analyte.

This line of work appears to address the challenge of achieving high sensitivity in electrochemical sensing without relying on complex or expensive materials. By utilizing electrodeposited cobalt oxide nanoparticles, the researcher introduced a method that likely improved the signal-to-noise ratio and detection threshold compared to unmodified electrodes. The absence of follow-up papers by the same researcher suggests this core publication stands as a distinct, self-contained advancement in the field of electrochemical biosensors.

The significance of this contribution is evidenced by its substantial citation record, with 360 citations indicating broad recognition within the scientific community. Notably, 95.0% of the citing papers originate from independent researchers, demonstrating that the work has been widely adopted and built upon by the broader field rather than just the researcher's immediate circle. This high degree of independent uptake underscores the utility and foundational nature of the proposed sensing methodology.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 94 · 3 flagged influential by Semantic Scholar

CORE PAPER

[Nanomolar detection of hydrogen peroxide on glassy carbon electrode modified with electrodeposited cobalt oxide nanoparticles](#)

2007 · *Analytica chimica acta* 594 (1), 24-31, 2007 · 360 citations (GS)

Field-normalised: 297 Semantic Scholar citations place it in the top 5% of Chemistry papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	<u>Metal oxide nanoparticles in electrochemical sensing and biosensing: a review</u>	Mahatma Gandhi University	India	—
2	<u>Recent advances in electrochemical sensing for hydrogen peroxide: a review</u>	Huazhong University of Science and Technology, Wuhan National Laboratory for Optoelectronics	China	—
3	<u>Methods to evaluate the scavenging activity of antioxidants toward reactive oxygen and nitrogen species (IUPAC Technical Report)</u>	Adnan Menderes University, Atatürk University, Istanbul University-Cerrahpaşa	Australia, Chile, Greece	—
4	<u>Electrochemical sensing of hydrogen peroxide using metal nanoparticles: a review</u>	Southwest University, Suzhou University of Science and Technology	China	—
5	<u>Recent advances in hydrothermally and solvothermally grown Co₃O₄ nanostructures for electrochemical energy storage (EES) applications: a brief review</u>	Dr. Babasaheb Ambedkar Marathwada University	India	—
6	<u>Facile and Affordable Design of MXene-Co₃O₄-Based Nanocomposites for Detection of Hydrogen Peroxide in Cancer Cells: Toward Portable Tool for Cancer ...</u>	Sunway University, University of Naples Federico II	Italy, Malaysia	—

No.	Citing paper	Citing institution(s)	Country	S2
7	Recent advances in electrochemical nonenzymatic hydrogen peroxide sensors based on nanomaterials: a review	Indian Institute of Science	India	—
8	Electrochemical nonenzymatic sensing of glucose using advanced nanomaterials	Indian Institute of Science	India	—
9	Preparation of 2D Graphene/MXene nanocomposite for the electrochemical determination of hazardous bisphenol A in plastic products	King Saud University, SRM Institute of Science and Technology, Yeungnam University	India, Saudi Arabia, South Korea	—
10	Progress in chemical luminescence-based biosensors: A critical review	University of Bologna	Italy	—
11	A Chemiluminescent Method for the Detection of H ₂ O ₂ and Glucose Based on Intrinsic Peroxidase-Like Activity of WS ₂ Quantum Dots	Nanjing Forestry University, University of Tabriz	China, Iran	—
12	A glassy carbon electrode modified with a film composed of cobalt oxide nanoparticles and graphene for electrochemical sensing of H ₂ O ₂	Anyang Normal University	China	Influential
13	Ag-supported nanozeolite L-modified electrode: a new high performance nonenzymatic hydrogen peroxide sensor	University of Mazandaran	Iran	—
14	A Highly Selective Amperometric Hydrogen Peroxide Sensor Based on Silicomolybdate-Doped-Glutaraldehyde-Cross-Linked Poly-L-Lysine Film Modified Glassy Carbon Electrode	National Taipei University of Technology	Taiwan	—
15	A low-cost screen printed glass electrode with silver nano-ink for electrochemical detection of H ₂ O ₂	University of Alicante, University of California, Irvine Medical Center	Spain, United States	—
16	A mediator-free self-powered glucose biosensor based on a hybrid glucose/MnO ₂ enzymatic biofuel cell	Chinese Academy of Sciences	China	—
17	Amperometric biosensor systems prepared on poly (aniline-ferrocenium hexafluorophosphate) composites doped with poly(vinyl sulfonic acid sodium salt)	University of the Western Cape	South Africa	Influential
18	Amperometric detection of acetaminophen by an electrochemical sensor based on cobalt oxide nanoparticles in a flow injection system	Azarbaijan Shahid Madani University	Iran	—
19	Amperometric detection of hydrogen peroxide utilizing synergistic action of cobalt hexacyanoferrate and carbon nanotubes chemically modified with platinum nanoparticles	East China University of Science and Technology, Lanzhou University, Université Toulouse III - Paul Sabatier	China, France	—
20	An amperometric biosensor for the detection of hydrogen peroxide released from human breast cancer cells.	Nanjing University, Shanghai University	China	—

No.	Citing paper	Citing institution(s)	Country	S2
21	A New Electrochemical Method to Detect Sunset Yellow, Tartrazine and Thiomersal in a Pharmaceutical Dose Using a Carbon Paste Electrode Decorated with Molybdenum Oxide	National University of San Marcos, Universidad de Ibagué, Universidad de los Andes	Colombia, Peru	—
22	A new kinetic-mechanistic approach to elucidate electrooxidation of doxorubicin hydrochloride in unprocessed human fluids using magnetic graphene based nanocomposite modified glassy carbon electrode.	Tabriz University of Medical Sciences, University of Tabriz, Urmia University of Technology	Iran	—
23	An integrated flexible and reusable graphene field effect transistor nanosensor for monitoring glucose	Harbin Institute of Technology	China	—
24	A Novel Enzyme-Free Hydrogen Peroxide Sensor Based on Electrode Modified with Gold Nanoparticles-Overoxidized Polydopamine Composites	Anyang Normal University	China	—
25	Apo ferritin-templated biosynthesis of manganese nanoparticles and investigation of direct electron transfer of MnNPs-HsAFr at modified glassy carbon electrode	Islamic Azad University Kerman, Razi University, Tabriz University of Medical Sciences	Iran	—
26	Applications of Metals, Metal Oxides, and Metal Sulfides in Electrochemical Sensing and Biosensing	Institute of Chemistry, Academia Sinica, National Taiwan University	Taiwan	—
27	Augmented Green Hydrogen Production at Binary Nickel/Cobalt Oxide Nanostructured Catalyst	British University in Egypt, Cairo University	Egypt	—
28	Carbon paste electrode modified by cobalt ions dispersed into poly (N-methylaniline) preparing in the presence of SDS: application in electrocatalytic oxidation of hydrogen peroxide	University of Mazandaran	Iran	—
29	Co ₃ O ₄ nanoparticles anchored on nitrogen-doped reduced graphene oxide as a multifunctional catalyst for H ₂ O ₂ reduction, oxygen reduction and evolution reaction	Capital Normal University	China	—
30	Co ₃ O ₄ spinel nanoparticles decorated graphite electrode: Bio-mediated synthesis and electrochemical H ₂ O ₂ sensing	Indian Institute of Technology Guwahati	India	—

Showing the 30 most-cited of 94 independent citing papers.

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 is Influential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim – Contribution 3

The researcher developed a method for immobilizing glucose oxidase on electrodeposited nickel oxide nanoparticles to enable direct electron transfer and enhance electrocatalytic activity in biosensors.

CLAIM: The researcher's contribution centers on the 2007 publication in *Biosensors and Bioelectronics*, which details the immobilization of glucose oxidase on electrodeposited nickel oxide nanoparticles to facilitate direct electron transfer and electrocatalytic activity.

ORIGINALITY: This work appears to address the challenge of efficient enzyme-electrode communication in biosensing. By utilizing electrodeposited nickel oxide nanoparticles, the researcher likely provided a novel platform that improves the stability and electron transfer kinetics of glucose oxidase, a critical step for developing sensitive and reliable electrochemical biosensors.

SIGNIFICANCE: The core paper has accumulated 297 citations, indicating substantial uptake by the scientific community. Notably, 95.0% of the citing papers originate from independent researchers, suggesting that this method has become a widely adopted reference point for independent groups working in the field of electrochemical biosensors and enzyme immobilization.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 83 · 1 flagged influential by Semantic Scholar

CORE PAPER

[Immobilization of glucose oxidase on electrodeposited nickel oxide nanoparticles: direct electron transfer and electrocatalytic activity](#)

2007 · *Biosensors and Bioelectronics* 22 (12), 3146-3153, 2007 · 297 citations (GS)

Field-normalised: 240 Semantic Scholar citations place it in the top 5% of Chemistry papers from 2007 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Potential applications of enzymes immobilized on/in nano materials: A review	Aligarh Muslim University, Jazan University	India, Saudi Arabia	—
2	Nanostructured metal oxide-based biosensors	Delhi Technological University, Florida Polytechnic University, National Physical Laboratory	India, United States	—
3	Biofuel powered glucose detection in bodily fluids with an n-type conjugated polymer	King Abdullah University of Science and Technology, University of Milan	Italy, Saudi Arabia	—
4	Green synthesis of metal oxides semiconductors for gas sensing applications	Politecnico di Torino	Italy	—
5	Single phase Bunsenite NiO nanoparticles green synthesis by <i>Agathosma betulina</i> natural extract	University of South Africa	South Africa	—
6	Current progress in organic-inorganic hetero-nano-interfaces based electrochemical biosensors for healthcare monitoring	Delhi Technological University, King Saud University	India, Saudi Arabia	—
7	Biomedical and environmental applications via nanobiocatalysts and enzyme immobilization	Galala University, Idlib University	Egypt, Syria	—
8	The use of nanoparticles in electroanalysis: an updated review	University of Oxford	United Kingdom	—

No.	Citing paper	Citing institution(s)	Country	S2
9	Industrial applications of immobilized nanobiocatalysts	Ca' Foscari University of Venice, Huaiyin Institute of Technology, Jaypee University of Information Technology	Canada, China, India	—
10	A nano-Ni based ultrasensitive nonenzymatic electrochemical sensor for glucose: enhancing sensitivity through a nanowire array strategy	Hunan University, Qufu Normal University	China	—
11	A facile nano-iron oxide sensor for the electrochemical detection of the anti-diabetic drug linagliptin in the presence of glucose and metformin	National Organization for Drug Control and Research	Egypt	—
12	A glucose biosensor based on direct electron transfer of glucose oxidase immobilized onto glassy carbon electrode modified with nitrophenyl diazonium salt	University of Isfahan	Iran	—
13	A Glucose Biosensor Based on Immobilization of Glucose Oxidase on Platinum Nanoparticle Doped Santa Barbara Amorphous Material-15	Shandong University of Technology	China	—
14	A Highly Sensitive and Simple Platform for Enzyme-Free Detection of Ethanol Based on a Nano-Porous Glassy Carbon Electrode with Electrodeposited Ni Nanoparticles	Zhejiang Sci-Tech University	China	Influential
15	A high-performance glucose biosensor using covalently immobilised glucose oxidase on a poly(2,6-diaminopyridine)/carbon nanotube electrode.	BioElectronics (United States), Linköping University, University of Zanjan	Iran, Sweden, United States	—
16	Amperometric detection of glucose based on immobilizing glucose oxidase on g-C ₃ N ₄ nanosheets	Anhui University of Technology	China	—
17	Amperometric detection of Glycine, l-Serine, and l-Alanine using glassy carbon electrode modified by NiO nanoparticles	Ilam University, Malek Ashtar University of Technology, Razi University	Iran	—
18	An amperometric glucose biosensor based on the immobilization of glucose oxidase on the CuGeO ₃ nanowire modified electrode	Anhui University of Technology	China	—
19	An amperometric glucose biosensor based on the immobilization of glucose oxidase on the platinum electrode modified with NiO doped ZnO nanorods	Anhui University of Technology	China	—
20	A nano-Ni based ultrasensitive nonenzymatic electrochemical sensor for glucose: enhancing sensitivity through a nanowire array strategy.	Hunan University, Qufu Normal University	China	—
21	A new hybrid nanocomposite electrode based on Au/CeO ₂ -decorated functionalized glassy	Assiut University, Imam Abdulrahman Bin Faisal Univer-	Egypt, Saudi Arabia	—

No.	Citing paper	Citing institution(s)	Country	S2
	carbon microspheres for the voltammetric sensing of quercetin and its interaction with DNA.	sity, King Fahd University of Petroleum and Minerals		
22	An innovative method for anchoring glucose-sensing molecules on glassy micro-particles	Universidad Nacional del Sur	Argentina	—
23	A Review on Glucose and Hydrogen Peroxide Biosensor Based on Modified Electrode Included Silver Nanoparticles	Qaemshahr Islamic Azad University	Iran	—
24	A three-dimensional graphene skeleton as a fast electron and ion transport network for electrochemical applications	Collaborative Innovation Center of Chemical Science and Engineering Tianjin, Tianjin University, Tsinghua University	China	—
25	Bioelectrocatalysis and surface analysis of gold coated with nickel oxide/hydroxide and glucose oxidase towards detection of glucose.	Rhodes University	South Africa	—
26	Carbon nanotubes-nanoflake-like SnS ₂ nanocomposite for direct electrochemistry of glucose oxidase and glucose sensing.	Yangzhou University	China	—
27	Conception et optimisation de piles enzymatiques glucose-O ₂ pour la gestion de puissance	Laboratoire Ampère	France	—
28	Copper oxide nanoparticles and ionic liquid modified carbon electrode for the non-enzymatic electrochemical sensing of hydrogen peroxide	Zhejiang University	China	—
29	Covalent co-immobilization of glucose oxidase and ferrocenedicarboxylic acid for an enzymatic biofuel cell	Gwangju Institute of Science and Technology, Korea Advanced Institute of Science and Technology	South Korea	—
30	Direct electrochemistry and electrocatalysis of glucose oxidase on three-dimensional interpenetrating, porous graphene modified electrode	Beijing Institute of Technology, Beijing University of Posts and Telecommunications	China	—

Showing the 30 most-cited of 83 independent citing papers.

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
University of Kurdistan	Iran	THE 1001–1200	11

Institution	Country	World ranking	Citing papers
Chinese Academy of Sciences	China	SCImago #2	9
King Saud University	Saudi Arabia	SCImago #264 · THE 251–300 · QS 143	6
Cairo University	Egypt	SCImago #997 · THE 801–1000 · QS =347	6
British University in Egypt	Egypt	SCImago #6160 · THE 1201–1500 · QS 1201-1400	6
Nanyang Technological University	Singapore	SCImago #137	5
University of Tehran	Iran	SCImago #1161 · THE 401–500 · QS 322	5
Hakim Sabzevari University	Iran	SCImago #10054 · THE 1201–1500	5
University of Mazandaran	Iran	SCImago #9653 · THE 1201–1500	5
University of Isfahan	Iran	SCImago #6816 · THE 1201–1500 · QS 1001-1200	5
Banaras Hindu University	India	SCImago #3422 · THE 501–600 · QS 1001-1200	4
Razi University	Iran	SCImago #9209 · THE 1501+	4
National Taiwan University	Taiwan	SCImago #513 · THE 140 · QS =63	4
Graduate University of Advanced Technology	Iran	SCImago #9903	4
Hanyang University	South Korea	SCImago #514 · THE 251–300 · QS 159	3

Geographic distribution of citing authors

Country	Citing papers
China	75
India	49
Iran	45
United States	21
South Korea	17
Saudi Arabia	16
Egypt	14
Taiwan	13
Italy	11
France	9
Japan	8
Brazil	8

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	Enhancement of the critical current density and flux pinning of superconductor by nanoparticle SiC doping	19	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 2	Nanomolar detection of hydrogen peroxide on glassy carbon electrode modified with electrodeposited cobalt oxide nanoparticles	94	8 CFR 204.5(h)(3)(v) – Criterion 5
Contribution 3	Immobilization of glucose oxidase on electrodeposited nickel oxide nanoparticles: direct electron transfer and electrocatalytic activity	83	8 CFR 204.5(h)(3)(v) – Criterion 5