

## Taylor & Francis American Institute of Physics (AIP) style

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In-text citations	
Basic citation format	<p>Resources in the reference list should be cited using digits in square brackets. A bracketed citation should precede terminal (e.g., periods, commas, closed quotation marks, question marks, exclamation point) and nonterminal punctuation (e.g., semicolons, colons):</p> <p>This phenomenon frequently occurs in nature [3].</p>
Multiple resources cited	<p>When citing two resources in the same callout, include both digits within the same square brackets and separate them with a comma:</p> <p>This phenomenon frequently occurs in nature, experts agree [3, 4].</p>

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	<p>When citing multiple resources that are not consecutively numbered in the same callout, include all the digits within the same square brackets and separate them with commas:</p> <p>This phenomenon frequently occurs in nature, experts agree [3, 4, 28].</p> <p>When citing span of three or more resources that are consecutively number in the same callout, include the first and last digits and separate them with an en-dash:</p> <p>This phenomenon frequently occurs in nature, experts agree [3, 4, 28, 29–31].</p>
Citation with a direct quotation	<p>Citations should be positioned outside the quotation mark that closes a passage in the running text that is drawn directly from a resource:</p> <p>One should live by the dictum, “Measure what is measurable, and make measurable what is not” [18].</p> <p>Longer quotations (over 50 words) should be set off in a “block.” Citations appear after any punctuation that ends block quotations, with a space separating the citation from the punctuation:</p> <p style="padding-left: 40px;">... make measurable what is not. [18]</p> <p>The reference associated with the citation should feature the number of the page on which the quote is found.</p>
Author names	<p>The names of authors associated with a resource can be included in the running text along with a numerical citation. A numerical citation, though, should not be used as a substitute for author names.</p> <p><u>Correct</u> Wayne and Hartley [12] write ...</p> <p><u>Incorrect</u> [12] write.</p> <p>The citation should immediately follow the mention of the author name(s).</p>

	<p>The basic formats for citations with different numbers of authors are as follows:</p> <p>One author: Smith [12]</p> <p>Two authors: Smith and Jones [13]</p> <p>Three or more authors: Smith et al. [14]</p>
Tables and figures	Resources cited in tables or figure legends should follow the standard format and must be included in the reference list.
<b>Reference list</b>	
Order	<p>The references should be numbered consecutively based on the order of their first citation in the text. The first reference cited is "1.," the second "2.," and so on, in sequence. The digits should not be in square brackets but should be followed by periods. References should not be repeated in the list. The same resource, in other words, should not be given a different number with each subsequent mention in the text but should be cited on these later instances using the number assigned to it in the reference list at its first citation.</p> <p><u>Example</u></p> <p>This is the first citation of Green [23]. This is an intervening citation by a different author [24]. This is a subsequent citation of the same reference by Green [23].</p> <p>References</p> <p>23. M. L. Green, Journal article.</p> <p>24. K. W. Blue and J. R. Red, <i>Book Title</i>.</p>

Form of author name	<p>For all authors, use initials, with periods and spaces between them, in lieu of expanded given and middle names. Include the authors' surnames in full. Commas should separate individual author names. The word "and" should precede the final author name for reference entries with three or fewer authors. If more than three individuals authored a resource, the reference entry documenting the resource should list the first author followed by "<i>et al.</i>," in italics.</p> <p style="text-align: center;"><u>Up to 3 Authors</u></p> <p><u>Format:</u> #. A. Z. Author, B. Y. Author, and C. X. Author</p> <p style="text-align: center;"><u>More than 3 Authors</u></p> <p><u>Format:</u> #. A. Z. Author, <i>et al.</i></p> <p style="text-align: center;">***</p> <p>If an organization is the author of a resource, the full name of the organization can appear in the reference:</p> <p>8. British Standards Institution.</p> <p style="text-align: center;">***</p> <p>If a resource has no author, the reference entry should begin with the title of work:</p> <p>12. <i>Authorless Book Title.</i></p>
Titles	<p>The titles of book chapters, journal articles, reports, and papers should appear in Roman font with sentence style capitalization. The titles of books and journals should appear in italics with headline style capitalization (i.e., capitalize first words of title and subtitle, as well as all nouns, pronouns, verbs, adjectives, and adverbs, regardless of length, and conjunctions and prepositions four letters or longer). The titles of journals, moreover, should be abbreviated in accordance with ISO 4 List of Title Word Abbreviations (LTWA) standards.</p>

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Place of publication and publisher name for books and reports	<p>Any initial "the" and concluding "Inc.", "Ltd", "Co.", "Publishing Co.", etc. should be omitted from the publisher name in the reference entry.</p> <p>Where two cities are given as a book or report's place of publication, include the first one only in the book reference. If the city could be confused with another, add the abbreviation of the state, province, or country:</p> <p>(Harvard University Press, Cambridge, MA)  (Cambridge University Press, Cambridge, UK)  (Macmillan, New York)  (Prentice Hall, Englewood Cliffs, NJ)  (Smithsonian Institution Press, Washington, DC)</p> <p>When the publisher's name includes the state name, the state abbreviation is not needed:</p> <p>(University of North Carolina Press, Chapel Hill)</p>
Volume numbers, issue numbers and DOIs for journals	<p>Volume number in journal article references should be set in boldface. The issue number can be omitted if the journal is paginated consecutively through the volume (or if month or season is included), but it is not incorrect to include it.</p> <p>DOIs are standard elements of journal reference entries. Authors, though, are not required to retrieve DOIs for references.</p>
In press	<p>"In press" should be used in lieu of a publication year for any in-press references.</p>
Pagination	<p>Only the first page of the resource should be included in a journal article reference. In book chapter references, include all digits, even if the end page number repeats the thousand and/or hundred digit(s) found in the first page number, and insert "pp." before the page range:</p> <p>B. Valesco, Title of book chapter, in <i>Book title</i>, edited by J. A. Ricardo (Publisher, City, 2015), pp. 623–654.</p> <p style="text-align: center;">***</p> <p>If an online journal employs e-location or a similar identification system in lieu of pagination, the journal's method should be retained for the reference entry.</p>

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<b>Book</b>	
Book model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, <i>Title of the Book</i> (Publisher Name, City, State Abbr./Country [optional], yyyy).</p> <p><u>Example (full work citation)</u> 2. G. D. Gillen, K. Gillen, and S. Guha, <i>Light Propagation in Linear Optical Media</i> (CRC, Boca Raton, FL 2014).</p> <p><u>Example (page citation)</u> 2. G. D. Gillen, K. Gillen, and S. Guha, <i>Light Propagation in Linear Optical Media</i> (CRC, Boca Raton, FL 2014), p. 22.</p>
Book with titled volume of multivolume work and edition model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, <i>Title of the Multivolume Work</i>, # ed. (Publisher Name, City, State Abbr./Country [optional], yyyy), Vol. #.</p> <p><u>Example (full work citation)</u> 18. R. W. Chabay and B. A. Sherwood, <i>Matter and Interactions</i>, 3rd ed. (Wiley, Hoboken, NJ, 2010), Vol. 1.</p> <p><u>Example (page citation)</u> 18. R. W. Chabay and B. A. Sherwood, <i>Matter and Interactions</i>, 3rd ed. (Wiley, Hoboken, NJ, 2010), Vol. 1, p. 64.</p>

Book with translator model	<p><u>Format</u>  # . A. Author, B. Author, and C. Author, <i>Title of the Book</i>, translated by A. Translator and B. Translator (Publisher Name, City, State Abbr./Country [optional], yyyy).</p> <p><u>Example (full citation)</u>  3. A. Einstein, <i>Relativity: The Special and General Theory</i>, translated by R. Lawson (Henry Holt, New York, 1921).</p> <p><u>Example (page citation)</u>  3. A. Einstein, <i>Relativity: The Special and General Theory</i>, translated by R. Lawson (Henry Holt, New York, 1921), pp. 125–126.</p>
Book with non-English title and edition model	<p><u>Format</u>  # . A. Author, B. Author, and C. Author, <i>Book Title in Original Language</i>, # ed. (Publisher Name: City, State Abbr./Country [optional], yyyy).</p> <p><u>Example (full citation)</u>  6. U. Tietze, C. Schenk, and E. Gamm, <i>Halbleiter-Schaltungstechnik</i>, 15th ed. (Springer, Berlin, 2016).</p> <p><u>Example (page citation)</u>  6. U. Tietze, C. Schenk, and E. Gamm, <i>Halbleiter-Schaltungstechnik</i>, 15th ed. (Springer, Berlin, 2016), p. 239.</p>
Edited book, cited in full, model	<p><u>Format</u>  # . A. Editor, B. Editor, and C. Editor, editor(s), <i>Title of the Book</i> (Publisher Name, City, State Abbr./Country [optional], yyyy).</p> <p><u>Example</u>  47. W. Lewin and M. van der Klis, editors, <i>Compact Stellar X-ray Sources</i> (Cambridge University Press, Cambridge, UK, 2009).</p>

Chapter in edited book with edition model	<p><u>Format</u>  # . A. Author, B. Author, and C. Author, Title of the chapter, in <i>Title of the Book</i>, edited by A. Editor, B. Editor, and C. Editor (Publisher Name, City, State Abbr./Country [optional], yyyy), pp. ###–###.</p> <p><u>Example (full work citation)</u>  17. S. Sridhar and H. Y. Sohn, The kinetics of metallurgical reactions, in <i>Fundamentals of Metallurgy</i>, edited by S. Seetharaman (Woodhead, Cambridge, UK, 2005), pp. 270–359.</p> <p><u>Example (page citation)</u>  17. S. Sridhar and H. Y. Sohn, The kinetics of metallurgical reactions, in <i>Fundamentals of Metallurgy</i>, edited by S. Seetharaman (Woodhead, Cambridge, UK, 2005), p. 312.</p>
Chapter in edited book with volume model	<p><u>Format</u>  # . A. Author, B. Author, and C. Author, Title of the chapter, in <i>Title of the Book</i>, edited by A. Editor, B. Editor, and Editor (Publisher Name, City, State Abbr./Country [optional], yyyy), Vol. #, pp. ###–###.</p> <p><u>Example (full work citation)</u>  13. M. Ghaffari <i>et al.</i>, Nanobiomaterials for bionic eye: vision of the future, in <i>Engineering of Nanobiomaterials</i>, edited by A. M. Grumezescu (Elsevier, Waltham, MA, 2016), Vol. 2, pp. 257–286.</p> <p><u>Example (page citation)</u>  13. M. Ghaffari, Nanobiomaterials for bionic eye: vision of the future, in <i>Engineering of Nanobiomaterials</i>, edited by A. M. Grumezescu (Elsevier, Waltham, MA, 2016), Vol. 2, p. 267.</p>



Chapter in edited book with translator model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the chapter, in <i>Title of the Book</i>, edited by A. Editor, B. Editor, and C. Editor, translated by A. Translator and B. Translator (Publisher Name, City, State Abbr./Country [optional], yyyy), pp. ###-###.</p> <p><u>Example (full citation)</u> 63. V. A. Fock, On Schrödinger's wave mechanics, in <i>Selected Works: Quantum Mechanics and Quantum Field Theory</i>, edited by L. D. Faddeev, L. A. Khal'fin, and I. V. Komarov, translated by Y. N. Demkov (Chapman &amp; Hall/CRC, Boca Raton, FL, 2004), pp. 11–20.</p> <p><u>Example (page citation)</u> 63. V. A. Fock, On Schrödinger's wave mechanics, in <i>Selected Works: Quantum Mechanics and Quantum Field Theory</i>, edited by L. D. Faddeev, L. A. Khal'fin, and I. V. Komarov, translated by Y. N. Demkov (Chapman &amp; Hall/CRC, Boca Raton, FL, 2004), p. 13.</p>
<b>Journal</b>	
Journal article model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the article, <i>Abbr. Jnl. Title</i> ## (##), ### (yyyy). DOI: #####.</p> <p><u>Example</u> 12. K. Abdessalem <i>et al.</i>, Spectroscopic and electric dipole properties of the Van der Waals interaction between barium and krypton atoms, <i>Mol. Phys.</i> <b>117</b>, 143 (2019). DOI: 10.1080/00268976.2018.1504130.</p>
Online first publication model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the article, <i>Abbr. Jnl. Title</i> (yyyy). DOI: #####.</p> <p><u>Example</u> 26. Y. Yu, H.-Y. Liu, and R.-C. Yang, Photon blockade through microcavity-engineered plasmonic resonances, <i>J. Mod. Opt.</i> (2018). DOI: 10.1080/09500340.2018.1535099.</p>

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Journal article with e-location model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the article, <i>Abbr. Jرنل. Title ## (##), ### (yyyy)</i>. DOI: #####.</p> <p><u>Example</u> 42. A. Viljanen and R. Pirjola, Influence of spatial variations of the geoelectric field on geomagnetically induced currents, <i>J. Space Weather Space Clim.</i> <b>7</b>, A22 (2017). DOI: 10.1051/swsc/2017024.</p>
In-press journal article model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the article, <i>Abbr. Jرنل. Title</i> (in press).</p> <p><u>Example</u> 3. C. Pu <i>et al.</i>, High-pressure electrical conductivity and Raman spectroscopy of chalcantite, <i>Spectrosc. Lett.</i> (in press).</p>
<b>Conference</b>	
Serial proceedings model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the presentation, <i>Abbr. Ser. Proc./ Jرنل. Title ## (##), ### (yyyy)</i>. DOI: #####.</p> <p><u>Example</u> 1. K. Svit <i>et al.</i>, Peculiarities of CdS nanocrystal formation at annealing of a Langmuir-Blodgett matrix, <i>Phys. Status Solidi C</i> <b>13</b>, 417 (2016). DOI: 10.1002/pssc.201510285.</p>

Non-serial proceedings model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of the paper/presentation, in <i>Title of the Proceedings</i>, edited by A. Editor, B. Editor, and C. Editor (Publisher Name, City, State Abbr./Country [optional], yyyy), pp. ###–###.</p> <p><u>Example (full citation)</u> 61. H. Hüffel and G. Kelnhofer, On the geometry of gauge field theories, in <i>Particle Physics and the Universe: Proceedings of the 9th Adriatic Meeting, September 2003, Dubronik</i>, edited by J. Trampetić and J. Wess (Springer, Berlin, 2005), pp. 461–464.</p> <p><u>Example (page citation)</u> 61. H. Hüffel and G. Kelnhofer, On the geometry of gauge field theories, in <i>Particle Physics and the Universe: Proceedings of the 9th Adriatic Meeting, September 2003, Dubronik</i>, edited by J. Trampetić and J. Wess (Springer, Berlin, 2005), p. 463.</p>
Paper presentation model	<p><u>Format</u> #. A. Author, and B. Author, and C. Author, Title of the presentation, presented at Conference Name, City, State Abbr./Country [optional], dd Mo. yyyy.</p> <p><u>Example</u> 32. P. Schwerdtfeger, Accurate atomic polarizabilities from relativistic coupled-cluster theory, presented at the 11th International Conference on Atomic and Molecular Data and Their Applications (ICAMDATA 2018), Cambridge, MA, 13 Nov. 2018.</p>
Poster model	<p><u>Format</u> #. A. Author, and B. Author, and C. Author, Title of the poster, presented at Conference Name, City, State Abbr./Country [optional], dd Mo. yyyy.</p> <p><u>Example</u> 33. M. Kumar, L. Antti, and H. Pertti, Ordered phase in graphene's lowest Landau level, presented at the 34th International Conference on the Physics of Semiconductors (ICPS 2018), Montpellier, France, 30 Jul. 2018.</p>

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<b>Thesis</b>	
Thesis model	<p><u>Format</u> #. A. Author, Title of the dissertation, Dissertation or thesis type, Institution Name, yyyy.</p> <p><u>Example</u> 26. E. Elliott, Quantum transport and scale invariance in expanding Fermi gases, Ph.D. dissertation, Duke University, 2014.</p>
<b>Internet</b>	
Webpage model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, <i>Online Site or Webpage Title</i>, <a href="http://XXXXXX.XXX">http://XXXXXX.XXX</a> <a href="https://XXXXXX.XXX">https://XXXXXX.XXX</a> (accessed dd Mo. yyyy).</p> <p><u>Example</u> 8. Fermilab, <i>LBNF/DUNE: An International Flagship Neutrino Experiment</i>, <a href="http://www.fnal.gov/pub/science/lbnf-dune/index.html">http://www.fnal.gov/pub/science/lbnf-dune/index.html</a> (accessed 15 Oct. 2018).</p>
Electronic mailing list	<p><u>Format</u> #. Mailing List Name, e-mail (accessed dd Mo. yyyy).</p> <p><u>Example</u> 6. OCE Informational Listserv, OCENEWSLETTER@listserv.nsf.gov (accessed 1 Dec. 2015).</p>

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Blog	<p><u>Format</u> #. A. Blogger, Name of Blogpost, <i>Name of Blog Site</i>, http://XXXXXX.XXX https://XXXXXX.XXX (accessed dd Mo yyyy).</p> <p><u>Example</u> 12. D. Boyt, This article is based on fictional events, <i>PhysicsWorld</i>, https://physicsworld.com/a/this-article-is- based-on-fictional-events/ (accessed 21 Nov. 2018).</p>
<b>Newspaper or magazine</b>	
Print publication model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of article, <i>Name of Newspaper</i>, dd Mo. yyyy, p. ##.</p> <p><u>Example</u> 34. J. Klein, The application game: Alan Turing's insights just keep on giving, <i>New York Times</i>, 15 May 2018, p. D2.</p>
Online publication model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of article, <i>Name of Newspaper</i>, dd Mo. yyyy, http://XXXXXX.XXX https://XXXXXX.XXX (accessed Mo dd, yyyy).</p> <p><u>Example</u> 35. J. Klein, How the father of computer science decoded nature's mysterious patterns, <i>New York Times</i>, 8 May 2018. https://www.nytimes.com/2018/05/08/science/alan- turing- desalination.html?rref=collection%2Ftimestopic%2FChe mistry&amp;action=click&amp;contentCollection=science&amp;region=s tream&amp;module=stream_unit&amp;version=latest&amp;contentPlac ement=2&amp;pgtype=collection (accessed 31 Aug 2018).</p>
<b>Report</b>	

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Print model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of report or paper, #####, yyyy.</p> <p><u>Example (full citation)</u> 45. E. R. Graham, Plants as monitors of radioactive contamination of the environment of Los Alamos, New Mexico, LAMS-2879, 1962.</p> <p><u>Example (page citation)</u> 45. E. R. Graham, Plants as monitors of radioactive contamination of the environment of Los Alamos, New Mexico, LAMS-2879, 1962, p. 34.</p>
Online model	<p><u>Format</u> #. A. Author, B. Author, and C. Author, Title of report or paper, #####, yyyy. <a href="http://XXXXXX.XXX">http://XXXXXX.XXX</a> <a href="https://XXXXXX.XXX">https://XXXXXX.XXX</a> (accessed dd Mo. yyyy).</p> <p><u>Example</u> 81. A. Chance, Analysis of electron cloud effects and mitigation options: Milestone M2.4, CERN-ACC-2018-0041, 2018. <a href="https://cds.cern.ch/record/2645623/files/CERN-ACC-2018-0041.pdf">https://cds.cern.ch/record/2645623/files/CERN-ACC-2018-0041.pdf</a> (accessed 21 Nov. 2018).</p>
<b>Personal communication</b>	
Personal Letter, telephone conversation, or e-mail	<p><u>Format</u> #. A Contact (private communication).</p> <p><u>Example</u> 19. K. Swanson (private communication).</p>
<b>Other reference types</b>	

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Patent model	<p><u>Format</u> #. A. Inventor, B. Inventor, and C. Inventor, Title of patent, Patent Code ##### (dd Mo. yyyy).</p> <p><u>Example</u> 67. G. Bredemeyer and J. M. Barron, Apparatus and method for hybrid manufacturing, U.S. Patent No. 10,071,546 (11 Sept. 2018).</p>
Computer software with developer model	<p><u>Format</u> #. A. Developer, B. Developer, and C. Developer, <i>Title of Program</i>, version #.# (Producer Name, City, State Abbr./Country, #####).</p> <p><u>Example</u> 10. J. Noguera and C. Cumby, <i>SigmaXL</i>, version 8.0 (SigmaXL, Inc, Kitchener, Canada, 2017).</p>
Computer software without developer model	<p><u>Format</u> #. <i>Title of Program</i>, version #.# (Producer Name, City, State Abbr./Country, #####).</p> <p><u>Example</u> 76. <i>SPSS Amos</i>, version 22.0 (IBM, Armonk, NY, 2013).</p>
Dataset model	<p><u>Format</u> #. A. Researcher, B. Researcher, and C. Researcher, <i>Title of Dataset: Subtitle</i> [Dataset], Name of Archive/Repository/Database, <a href="http://dx.doi.org/XXXXXXXXXX">http://dx.doi.org/XXXXXXXXXX</a> OR <a href="https://doi.org/XXXXXXXXXX">https://doi.org/XXXXXXXXXX</a> OR <a href="https://[non-DOI URL]">https://[non-DOI URL]</a> (accessed Mo. dd, yyyy).</p> <p><u>Example</u> 3. G.-Y. Wang, Z.-M. Zhu, S. Cui, and J.-H. Wang, <i>Data from: Glucocorticoid Induces Incoordination Between Glutamatergic and GABAergic Neurons in the Amygdala</i> [Dataset], Dryad Digital Repository, <a href="https://doi.org/10.5061/dryad.k9q7h">https://doi.org/10.5061/dryad.k9q7h</a> (accessed Dec. 22, 2017).</p>