

High-level accessibility review – ACS Publications - Library Accessibility Alliance

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June 30, 2025



High-level accessibility review – ACS Publications - Library Accessibility Alliance

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ACS Publications

Summary:

Top 3 problems for the ACS Publications

This high-level assessment covers limited portions and functionality of the ACS Publications. The assessment revealed issues with assistive technology compatibility, resulting in some users missing information required to understand content, states and operate functions. It is important to keep in mind that the findings represent a high-level assessment, and do not reflect the results of a Deque Comprehensive Web Assessment. Following are top 3 issues from this evaluation.

- **Color contrast:** Elements like radio buttons and checkboxes do not have minimum color contrast ratio
 - **Reading Order:** Screen reader does not read the search suggestions correctly
 - **Keyboard Navigation:** Accordions are not actionable using keyboard
-

Review of Top Accessibility issues from previous evaluation

Majority of the issues from the previous evaluation have been remediated. There are still issues of insufficient color contrast, including on hover and focus. Some elements are not keyboard actionable, but focusable.

Accessibility findings

1. Landing Page

Source: <https://pubs-acrs-org.offcampus.lib.washington.edu/search/advanced>

Test case: Test initial interface/landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible.

Automated findings using Axe

SC 4.1.2 – Elements must only use supported ARIA attributes

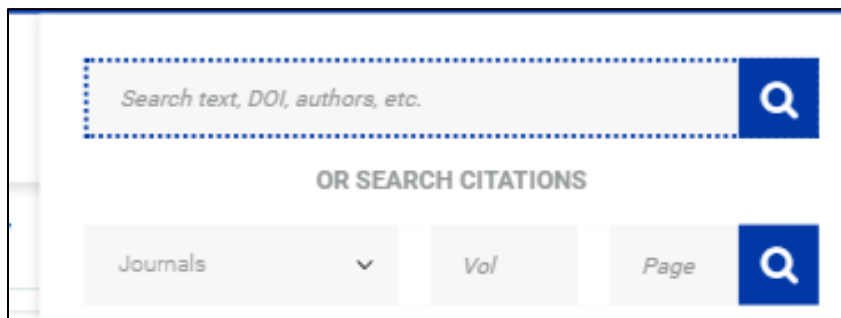
Element Location: .advanced-search_CandEN

```
<div aria-labelledby="advanced-search_CandEN__label" role="group" aria-required="true"
class="advanced-search_CandEN">
```

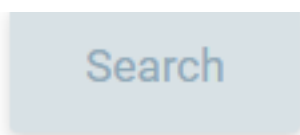
To solve this problem, you need to fix the following: ARIA attribute is not allowed: aria-required="true"

Additional manual findings

- SC 1.4.3 A – Color Contrast (Regular Text) – Search box placeholders and drop-down selected text do not have minimum color contrast ratio of 4.5:1 against the background. It has color contrast ratio of 2.70:1



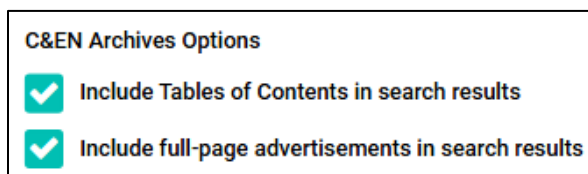
- SC 1.4.3 A – Color Contrast (Regular Text) – Search button text does not have minimum color contrast ratio of 4.5:1 against the inner background. It has color contrast ratio of 1.51:1



- 1.4.1.a Color as Information: Selected radio button boundary color does not have minimum contrast ratio of 3:1 with selected radio button boundary color. It has color contrast ratio of 2.14:1



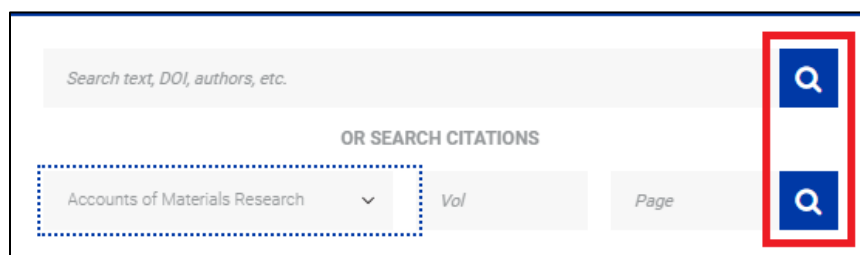
- 1.4.11.b – Non-text contrast (States of active user interface components) – White check mark does not have minimum contrast ratio of 3:1 with light blue background color. It has color contrast ratio of 2.30:1



- 1.4.11.b – Non-text contrast (States of active user interface components) – Selected radio button boundary color does not have minimum contrast ratio of 3:1 with white background color. It has color contrast ratio of 2.30:1

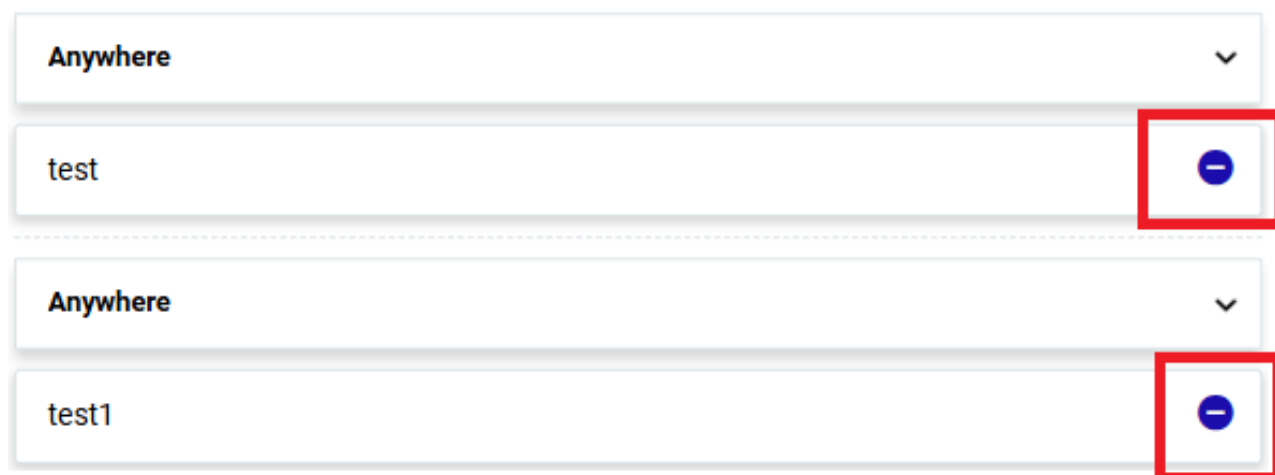


- 2.4.6.b – Descriptive Labels – Multiple search buttons have same programmatic name. NVDA announces each button as “button search”



The screenshot shows a search interface. At the top, there is a search bar with the placeholder text "Search text, DOI, authors, etc." and a magnifying glass icon. Below this, there is a section titled "OR SEARCH CITATIONS". Under this section, there are three input fields: "Accounts of Materials Research" (with a dropdown arrow), "Vol", and "Page". To the right of these fields, there are two magnifying glass icons, each enclosed in a red box. The first red box is around the top magnifying glass icon, and the second red box is around the bottom magnifying glass icon.

- 2.4.6.b – Descriptive Labels – Multiple buttons have same programmatic name. NVDA announces each button as “remove search field 1 button”

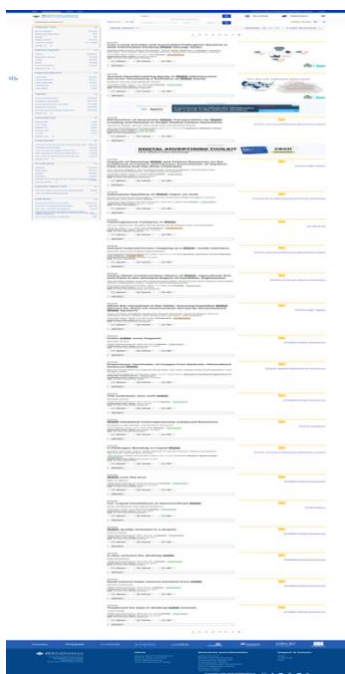


The screenshot shows a search interface with two search fields. Each field has a dropdown menu at the top with the text "Anywhere" and a downward arrow. The first search field contains the text "test" and has a blue minus sign button (remove button) to its right, which is enclosed in a red box. The second search field contains the text "test1" and also has a blue minus sign button (remove button) to its right, which is enclosed in a red box.

2. Search for: Water

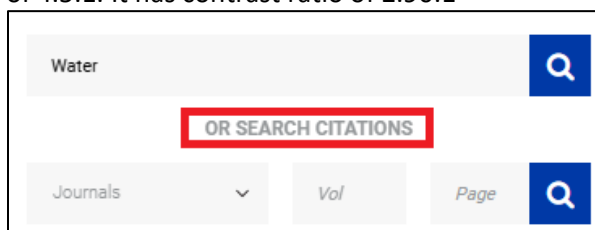
Source: <https://pubs-acrs-org.offcampus.lib.washington.edu/search/advanced>

Test case: From the initial landing page, conduct a search for: water



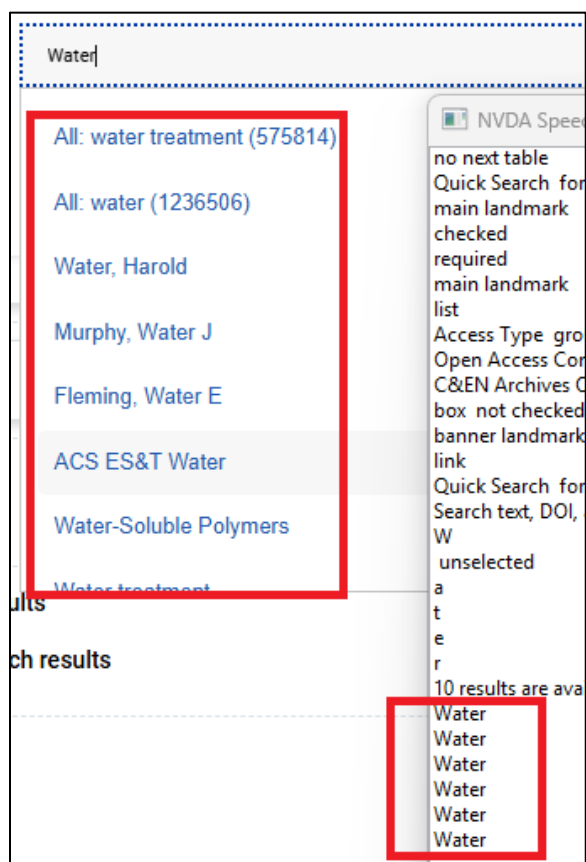
Automated findings using Axe

SC 1.4.3 A – Color Contrast (Regular Text) – “OR SEARCH CITATIONS” text does not have minimum contrast of 4.5:1. It has contrast ratio of 2.90:1



Additional manual findings

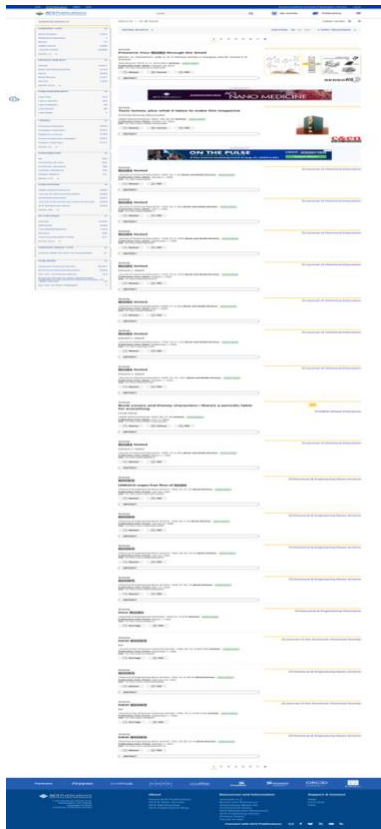
- 1.3.2.a Reading Order – Static text and screen reader announcement do not match. NVDA announces as “water” for each search suggestion.



3. Search Results Page

Source: <https://pubs-acrs-org.offcampus.lib.washington.edu/search/advanced>

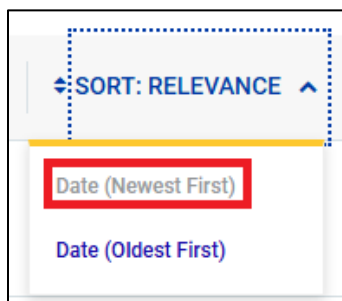
Test case: Test search results page, including filters/refine search (for example, filter for “books”) and sort by options.



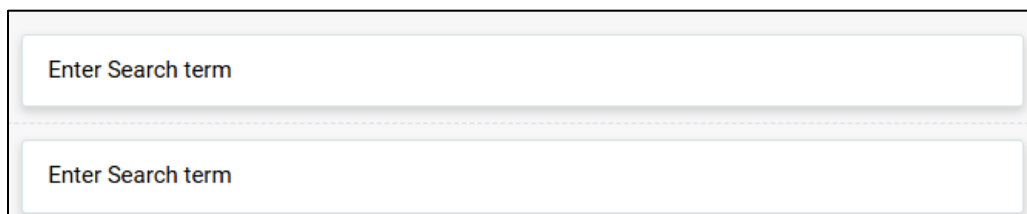
Automated findings using Axe : None

Additional manual findings

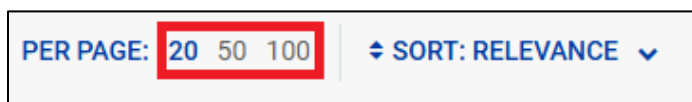
- 1.4.3.a Color Contrast (regular text) – Links text does not have minimum contrast ratio of 4.5:1 on mouse hover and keyboard focus. It has color contrast ratio of 2.90:1



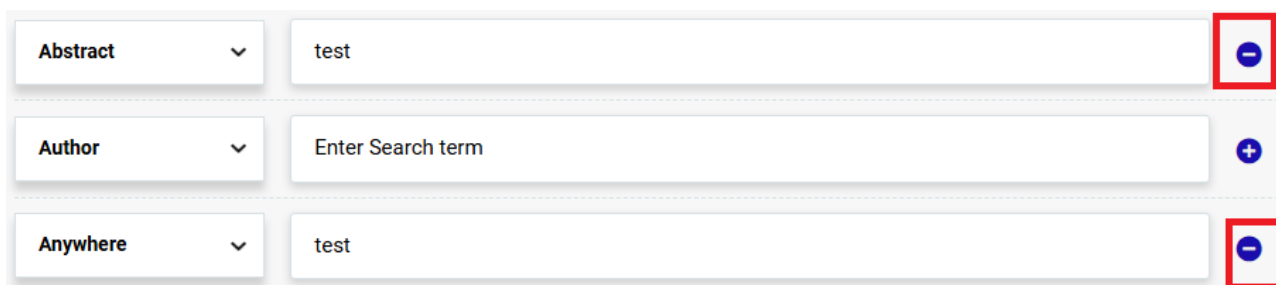
- 1.4.11.a Non-Text Contrast - Active User Interface Components – Edit box boundary does not have minimum contrast of 3:1 with outer background. It has color contrast ratio of 1.23:1



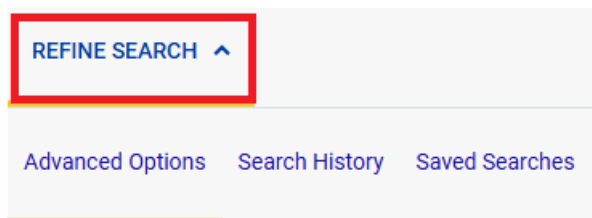
- 2.4.6.b Descriptive Labels – Links programmatic labels do not describe purpose. NVDA announces as “20 link”, “50 link” and “100 link”, and does not announce “per page”. E.g. “20 results per page link”.



2.4.6.b – Descriptive Labels – Multiple buttons have same programmatic name. NVDA announces each button as “remove search field 1 button”



- 4.1.2.a Name, Role, Value – For “Refine Search”, expanded state not announced by NVDA. It announces the collapsed state but does not announce “expanded” when expanded.



4. Individual search result landing page

Source: <https://pubs-acrs-org.offcampus.lib.washington.edu/doi/book/10.1021/acsinfocus.7e9013>

Test case: Test individual search result landing page (“Nanomedicine Basics” <https://pubs-acrs-org.offcampus.lib.washington.edu/doi/book/10.1021/acsinfocus.7e9013>) & test actual document (PDF, video, etc.).

ACSACS PublicationsC&ENCAS

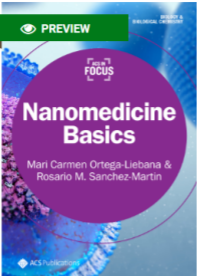
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My ActivityPublications

PREVIEW



PREVIEW

Access Through Your Institution

More Access Options

Nanomedicine Basics

Author(s): Mari Carmen Ortega-Liebana, Rosario M. Sanchez-Martin

Publication Date: June 23, 2025

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Cite This: *Nanomedicine Basics*; American Chemical Society, 2025. DOI: 10.1021/acsinfocus.7e9013

eISBN: 9780841296688

DOI: 10.1021/acsinfocus.7e9013

Read Time: two to three hours

Collection: 4

Publisher: American Chemical Society

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TOC

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About the Series

Preface

Chapter 1 Nanotechnology and the Need for New Perspectives in Medicine

Chapter 2 Nanodelivery Systems and Bioconjugation

Chapter 3 Nanomedicine Drug Dosing

Chapter 4 Translation of Nanomedicine: Challenges and Successes

Appendix A Techniques for Evaluating Nanoparticle-Based Delivery Systems

Appendix B Regulatory Challenges and Lack of a Global Regulatory Framework

Bibliography

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Author Info

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Mari

+ R

Search ACS for Mari Carmen Ortega-Liebana

Rosario M. Sanchez-Martin

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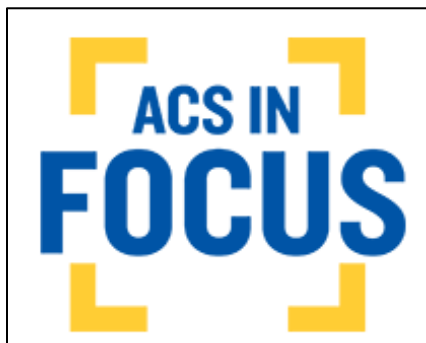
Connect with ACS Publications

Automated findings using Axe : None

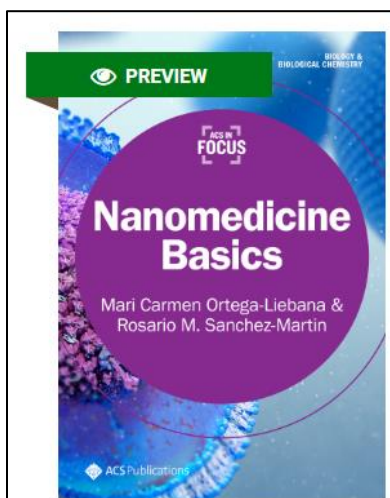
Additional manual findings

1.1.1.a Alternative Text (Active Images) – NVDA does not announce text in the image. NVDA announces as

“Book series logo graphic link”, and does not announce “ACS in focus”.



- 1.1.1.b Alternative Text (Informative Images) – NVDA does not announce text in the image. NVDA announces as “Book logo”.



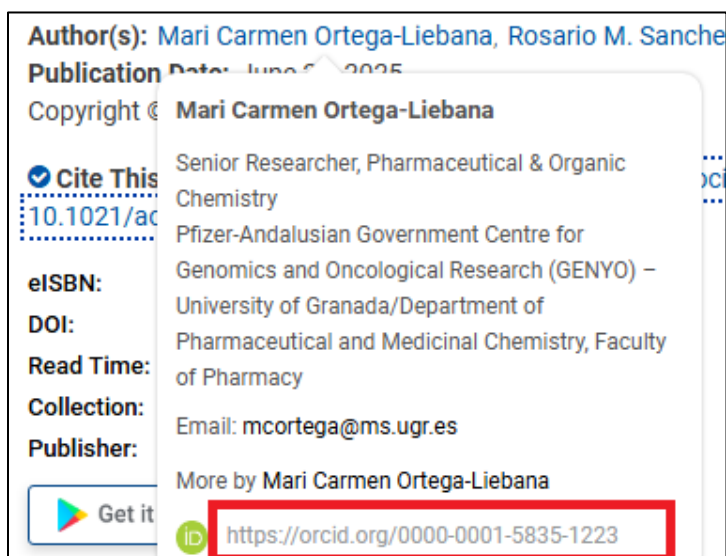
- 1.3.1.e Headings – Visual headings not marked as heading. “Detailed Table of Content” and “Author Info” should be marked as <H2>

Detailed Table of Contents	Author Info
	Mari Carmen Ortega-Liebana

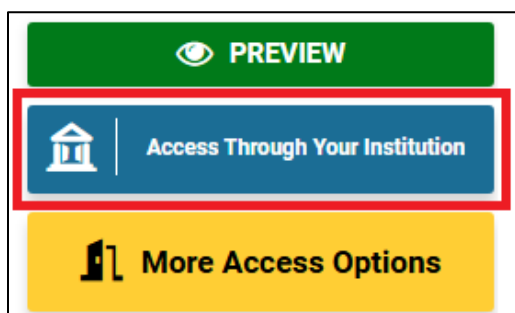
- 1.4.3.a Color Contrast (regular text) – Links text does not have minimum contrast ratio of 4.5:1 on mouse hover and keyboard focus. It has color contrast ratio of 3.39:1



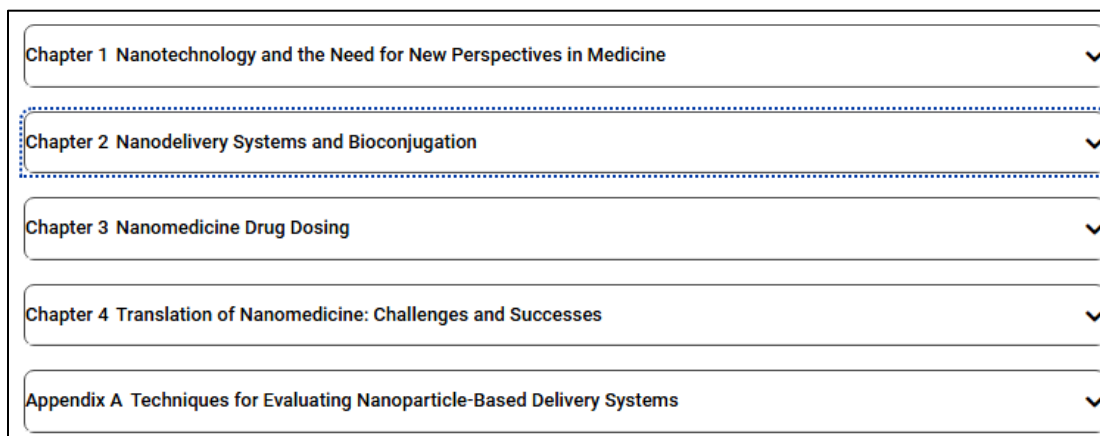
- 1.4.3.a Color Contrast (regular text) – Link text does not have minimum contrast of 4.5:1 on mouse hover and focus. It has color contrast ratio of 2.90:1



- 2.1.1 Keyboard Navigation – Keyboard focus does not go to “Access Through Your Institution” button



- 2.1.1 Keyboard Navigation – Keyboard tab focus goes to accordions, but pressing ENTER/SPACE cannot expand/collapse them.



- 2.1.1 Keyboard Navigation – Keyboard tab focus does not go to links under “Authors”. This cause keyboard users not able to open flyouts, that opens on mouse hover.

Author(s): Mari Carmen Ortega-Liebana, Rosario M. Sanchez-Martin
Publication Date: June 23, 2025
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Cite This: *Nanomedicine Basics*, American Chemical Society, 2025. DOI: 10.1021/acsinfocus.7e9013

eISBN: 9780841296688
DOI: 10.1021/acsinfocus.7e9013
Read Time: two to three hours
Collection: 4
Publisher: American Chemical Society

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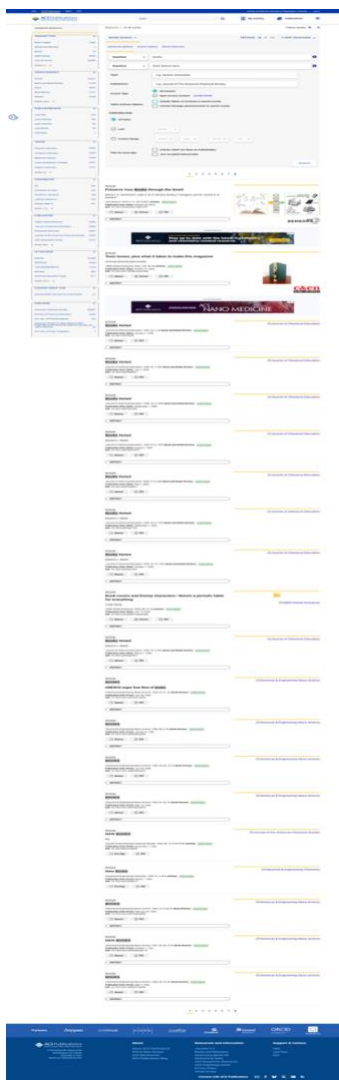
2.4.6.b Descriptive Labels – Link programmatic label not descriptive. NVDA announces as “Nanomedicine Basics link”. NVDA should announce whole link text, including “Cite this”.

Cite This: *Nanomedicine Basics*, American Chemical Society, 2025. DOI: 10.1021/acsinfocus.7e9013

5. Advanced search page feature

Source: <https://pubs-acrs-org.offcampus.lib.washington.edu/search/advanced>

Test case: Test advanced search page feature. This is not a separate page – you must first perform a regular search, and then select “refine search”. Try changing the dropdown that says “Anywhere” to “Author”.



Automated findings using Axe

4.1.2.a Name, Role, Value – Elements must only use supported ARIA attributes

Ensure an element's role supports its ARIA attributes

Element Location: .advanced-search_CandEN

```
<div aria-labelledby="advanced-search_CandEN__label" role="group" aria-required="true" class="advanced-search_CandEN">
```

To solve this problem, you need to fix the following:

ARIA attribute is not allowed: aria-required="true"

C&EN Archives Options	☐	Include Tables of Contents in search results
	☐	Include full-page advertisements in search results

Additional manual findings

- 4.1.2.a Name, Role, Value – Edit fields not associated with their visible labels. NVDA announces as “search term edit field books/blank”, but does not announce “Author/Anywhere”.

REFINE SEARCH ^ PER PAGE: 20 50 100 SORT: RELEVANCE

Advanced Options Search History Saved Searches

Author	books	+
Anywhere	Enter Search term	+