VPAT
Voluntary Product Accessibility Template
ScienceDirect

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Version History

Version	Date	Authors	Description
1	19 Sep 2017	T Gies, J Nemchik	This PPT format replaces the legacy VPAT in Word. This VPAT uses the WCAG 2.0 A and AA standards.
2	10 Nov 2017	T Gies	Added: conformance claim, 508 chapter 302, chapter 6. Revised 3.1.2 to Supports with Exceptions since the lang tag was added to articles.

Product Information and Scope

Name of Product	ScienceDirect
URL	http://www.sciencedirect.com
Date of Last Evaluation	15 November 2017
Completed by	Ted Gies, Jay Nemchik Elsevier Labs
Contact for More Information	Ted Gies User Experience Lead Certified DHS Section 508 Trusted Tester ted.gies@elsevier.com accessibility@elsevier.com
Testing Tools and Methods	Hands-on keyboard operation Firebug/Code inspection Wave toolbar aInspector SideBar JAWS 17, NVDA on Mozilla Firefox 48, IE11 on Windows 7 HTML Validator for Firefox User Testing Group with 8 universities, users who are blind, users with mobility issues
Guidelines Used to Complete this VPAT	W3C WCAG 2.0 http://www.w3.org/TR/WCAG20/ Elsevier Accessibility Checklist: http://romeo.elsevier.com/accessibility_checklist/
Pages Covered	Home, Mobile Menu/Spine, Quick Search, Sign in, Create an account, My account, Journals, Books, Search Results, Journal Article, Book Chapter, Journal Home Page, Book Home Page, Recommended Articles, Shopping Cart, Author Videos, AudioSlides, Topic Pages.
Notes	Conformance according to the W3C: If there is no content to which a success criterion applies, the success criterion is satisfied. In this case where we conform due to no content we have marked the slide 5 with "Supports*" – note the asterisks.
Additional Information	Accessibility in ScienceDirect Overview: https://www.elsevier.com/solutions/sciencedirect/support/web-accessibility

Conformance Claim

ScienceDirect web pages conform with level A and AA checkpoints of the WCAG 2.0 (Web Content Accessibility Guidelines). The pages that do not fully conform include legacy pages such as the shopping cart and advanced search. All current development and future page revisions target Level AA WCAG 2.0. When pages are not in full conformance, the specific violations are noted in the "Examples of Does not Support" section. PDF files are currently not conformant to the PDF UA spec, but are partially tagged and contain machine readable text for compatibility with text to speech engines. There are 2 examples of Does Not Support which is scoped to video content, a minor part of the ScienceDirect corpus. Videos do not have closed captioning (WCAG 1.2.2) nor audio description (1.2.5) currently.

# ScienceDirect WCAG 2.0 Individual Guideline Conformance

WCAG 2.0 Success Criterion	Level	Evaluation
1.1.1 Non-text Content	A	Supports with Exceptions
1.2.1 Audio-only and Video-only (Prerecorded)	A	Supports with Exceptions
1.2.2 Captions (Prerecorded)	A	Does Not Support
1.2.3 Audio Description or Full Text Alternative	A	Supports with Exceptions
1.2.4 Captions (Live)	AA	Supports (N/A)
1.2.5 Audio Description	AA	Does Not Support
1.3.1 Info and Relationships	A	Supports with Exceptions
1.3.2 Meaningful Sequence	A	Supports
1.3.3 Sensory Characteristics	A	Supports
1.4.1 Use of Color	A	Supports with Exceptions
1.4.2 Audio Control	A	Supports (N/A)
1.4.3 Contrast (Minimum)	AA	Supports with Exceptions
1.4.4 Resize text	AA	Supports
1.4.5 Images of Text	AA	Supports
2.1.1 Keyboard	A	Supports with Exceptions
2.1.2 No Keyboard Trap	A	Supports
2.2.1 Timing Adjustable	A	Supports (N/A)
2.2.2 Pause, Stop, Hide	A	Supports (N/A)
2.3.1 Three Flashes or Below Threshold	A	Supports (N/A)
2.4.1 Bypass Blocks	A	Supports
2.4.2 Page Titled	A	Supports
2.4.3 Focus Order	A	Supports
2.4.4 Link Purpose (In Context)	A	Supports
2.4.5 Multiple Ways	AA	Supports
2.4.6 Headings and Labels	AA	Supports
2.4.7 Focus Visible	AA	Supports with Exceptions
3.1.1 Language of Page	A	Supports with Exceptions
3.1.2 Language of Parts	AA	Supports with Exceptions
3.2.1 On Focus	A	Supports
3.2.2 On Input	A	Supports
3.2.3 Consistent Navigation	AA	Supports
3.2.4 Consistent Identification	AA	Supports with Exceptions
3.3.1 Error Identification	A	Supports
3.3.2 Labels or Instructions	A	Supports with Exceptions
3.3.3 Error Suggestion	AA	Supports
3.3.4 Error Prevention (Legal, Financial, Data)	AA	Supports
4.1.1 Parsing	A	Supports with Exceptions
4.1.2 Name, Role, Value	A	Supports with Exceptions

WCAG 2.0 1.1.1 – Non-text Content

Provide text alternatives for non-text content (e.g. images).

Level A W3C Guideline

Supports
with
Exceptions

OVERALL RATING: Supports with exceptions
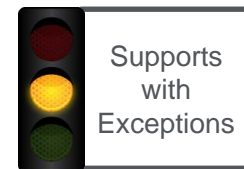
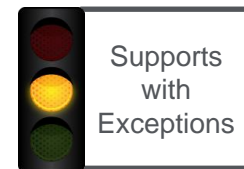| Examples of Supports ✔	Examples of Does Not Support ✘
• Link icons (help, social media) have title attributes. • Icons using color to encode information such as publication access types have meaningful title text. • Inline figures are accompanied by a text caption and in some cases meaningful descriptive text in the adjacent body text. • Figure images themselves have alt text which is a truncated version of the caption text. • Math equations are provided in gif as well as mathML.	• Image advertisements contain text that is not in the alt text. • Shopping cart cover images • Some journal or book figures including the graphical abstract may not be fully described in the surrounding body text. • Audio slides (in a minority of articles) contain a graphical only representation of the author's presentation materials. • A minority of journal and book content contain supplementary multimedia clips which could be an animation with audio + video, just audio or just animation These videos do not currently offer text equivalents. • Supplementary files may be PDF documents that contain graphical charts, (e.g. a chromatogram of a breakfast cereal sample) • Usabilla feedback button doesn't have alt text.

Workarounds and User Tips 🔧

• Author contact information is provided in case users wanted to request an alternative format of graphic or PPT (audio slides).
• Math equations are announced by JAWS, NVDA, and VoiceOver screen readers.

WCAG 2.0 1.2.1 – Audio-only and Video-only (Prerecorded)

Provide alternatives for pre-recorded audio-only or video-only content.
Level A W3C Guideline

Supports with Exceptions

OVERALL RATING: Supports with Exceptions

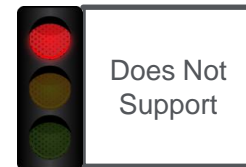| Examples of Supports ✔	Examples of Does Not Support ✘
• Sound clip (e.g. MP3 of whistling techniques) includes descriptive caption text and descriptive background information in the adjacent article text. • Video with no sound (e.g. MP4 of a robotic hardware experiment) includes an adjacent description of the experiment and a timeline of what happens in the visual scene, e.g. *In 0-5 s, both two robots compressed their arms*.	• An article contains a video of Supplementary Data in the Appendix. The video does not have sound. (e.g. MP4 showing 4 dough baking results from an experiment around redox agents). The data collected on height and volume is displayed in a table graphic. The video does not have an audio track (audio description) and there is not a text alternative for time-based media.

Workarounds and User Tips 🔧

• Author contact information is provided in case users wanted to request a description of an audio only or video only.
• Video clips can be downloaded by users and edited to add captioning or audio description.

WCAG 2.0 1.2.2 – Captions (Prerecorded)

Provide captions for pre-recorded video with audio.
Level A W3C Guideline

Does Not
Support

OVERALL RATING: Does Not Support	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• There are no supporting examples of video with captioning.	• Inline video files of a medical procedure, e.g. Minimally Invasive Transverse Colectomy AVI file is narrated but there is not closed captioning. • Author videos, e.g. 3 authors talking about String Theories in front of a chalk board are not closed captioned.

Workarounds and User Tips 🔧

Video clips can be downloaded by users and edited to add captioning.

WCAG 2.0 1.2.3-Audio Description or Media Alternative

Provide either audio description or a text screen play for videos.

Level A W3C Guideline
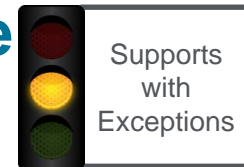
Supports with Exceptions

OVERALL RATING: Supports with Exceptions

| Examples of Supports ✔	Examples of Does Not Support ✘
• Article contains a video with no sound (e.g. MP4 file of a robotic hardware experiment). The article text includes an adjacent description of the experiment and what happens by time line, e.g. *In 0-5 s, both two robots compressed their arms.* • Article contains a video with no sound or accompanied by must only (e.g. MP4 file of a 3D model of a CT-scanned human cranium). The caption contains a description of the number, shape, and colors of landmarks in the model.	• An article contains a video of Supplementary Data in the Appendix. The video does not have sound. (e.g. MP4 showing 4 dough baking results from an experiment around redox agents). The data collected on height and volume is displayed in a table graphic. The video does not have an audio track (audio description) and there is not a text alternative for time-based media.

Workarounds and User Tips 🔧

• Video clips can be downloaded by users and edited to add audio description.
• MAGpie (Media Access Generator) is a free tool to author audio descriptions for making multimedia accessible to persons with sensory disabilities.

WCAG 2.0 1.2.4 Captions (Live)

Captions are provided for all live audio content in synchronized media.
Level AA W3C Guideline
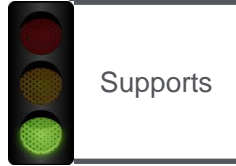
Supports

OVERALL RATING: Supports *(no content to which this success criterion applies)*
• ScienceDirect does not contain live video so the success criterion is satisfied according to the W3C's Understanding Conformance.

WCAG 2.0 1.2.5 Audio Description (Prerecorded)

Audio description is provided for prerecorded videos in synchronized media.
Level AA W3C Guideline
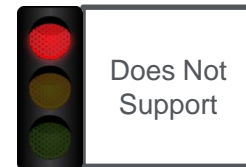
Does Not
Support

| OVERALL RATING: Does Not Support	
Examples of Supports ✓	**Examples of Does Not Support** ✗
• No supporting examples of video with audio description	• Inline video files of a medical procedure, e.g. Minimally Invasive Transverse Colectomy AVI file is narrated and there is not an audio description track. • Author videos, e.g. a MP4 video of 3 authors talking about String Theories in front of a chalk board does not have an audio description track. • Supplementary files, e.g. a MP4 video shows a 3D model of a CT-scanned human cranium and rotating around a vertical axis. There is a descriptive caption but not an audio description track.

Workarounds and User Tips 🔧
Video clips can be downloaded by users and edited to add audio description.

WCAG 2.0 1.3.1 Info and Relationships

Information, structure, and can be programmatically determined**.**
[Level A W3C Guideline](#)

Supports with Exceptions

OVERALL RATING: Supports with Exceptions
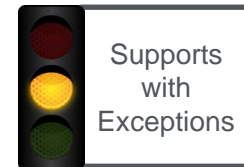
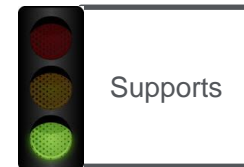| Examples of Supports ✔	Examples of Does Not Support ✘
• Well-constructed landmarks are used on all pages. • Headings are used well on all pages. They are ordered hierarchically and all relevant text is wrapped as headings. • Most areas of repeated links are contained in unordered or ordered lists. • Groups of related inputs are labelled using <fieldset> and <legend> tags. • Table data within articles utilize proper table structure with headers defined. • Pages are still usable with styles disabled.	• A minority of lists of are not contained in unordered lists (footer links, social media links, shopping cart items). • Highlights and Research Highlights should be changed from definition lists to use unordered lists. • PDFs are not fully tagged, e.g. only tag figures. • The shopping cart pages need H1 headings.

Workarounds and User Tips 🔧

• Screen reader users (e.g. JAWS) can benefit from:
  • headings navigation to skim through search results quickly.
  • regions navigation to skip around to main functions and page areas.
• PDFs can be read by screen readers by using the Add Tags or Auto Tag feature.
  • First delete all existing tags.

WCAG 2.0 1.3.2 Meaningful Sequence

The correct reading sequence can be programmatically determined.
Level A W3C Guideline

Supports

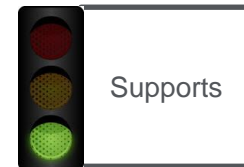| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• The DOM order matches the visual order. • Content is positioned based on structural markup and style sheets. • Articles utilize left-justified text. • Ordered lists are used to convey a meaningful sequence with sorted search results. • There is not just one reading order that makes sense, for instance users can go between independent functions such as search and search results.	No violations found by evaluators

Workarounds and User Tips 🔧
None

WCAG 2.0 1.3.3 Sensory Characteristics

Do not rely on sensory characteristics such as size, visual location, etc.
Level A W3C Guideline

Supports

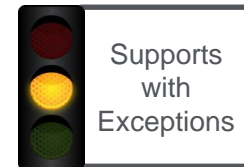| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• ScienceDirect does not use any content that relies on sensory characteristics alone to communicate information.	No violations found by evaluators

Workarounds and User Tips 🔧
None

WCAG 2.0 1.4.1 Use of Color

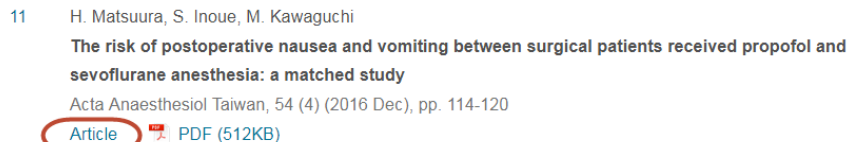Color is not used as the only visual means of conveying information.

[Level A W3C Guideline](#)

Supports with Exceptions

OVERALL RATING: Supports with Exceptions

| Examples of Supports ✓	Examples of Does Not Support ✗
• Links are identified using color but also hover and focus states have a color change and either a border or underline. • Subscribed, Open Access, and Abstract-only icons are designated through color, which is supplemented sometimes by text, and always with a title attribute. • Search tabs use color, text bolding, and hidden text "selected" to convey the selected tab. • Error messages such as No search results found utilize an icon in addition to red color and an alert role to denote the error state.	Blue links (#007398) are embedded within article text and result text (#505050). The contrast between blue and body text is only 1.5:1 and should be 3:1. 11 H. Matsuura, S. Inoue, M. Kawaguchi **The risk of postoperative nausea and vomiting between surgical patients received propofol and sevoflurane anesthesia: a matched study** Acta Anaesthesiol Taiwan, 54 (4) (2016 Dec), pp. 114-120 Article 📄 PDF (512KB)

Workarounds and User Tips 🔧

• If users are having trouble identifying links, disable style sheets or apply a custom style sheet which provides stronger indication (e.g. underlined) links.
• Links are always identified with an underline if users hover or tab to a link.

WCAG 2.0 1.4.2 Audio Control

Audio can be paused and stopped, or the audio volume can be changed.
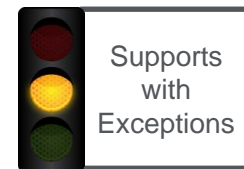Level A W3C Guideline
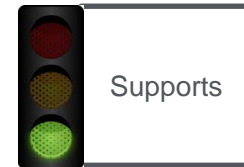
Supports

OVERALL RATING: Supports

- ScienceDirect does not have any auto-playing audio, or any embedded content which uses audio, so the success criterion is satisfied according to the W3C's Understanding Conformance.

Workarounds and User Tips 🔧

Content with audio including sound clips and videos may be downloaded and played by a native operating system application such as Windows Media player where volume many be independently controlled.

WCAG 2.0 1.4.3 Contrast (Minimum)

Text has enough contrast with the background (4.5:1 ratio for small text).
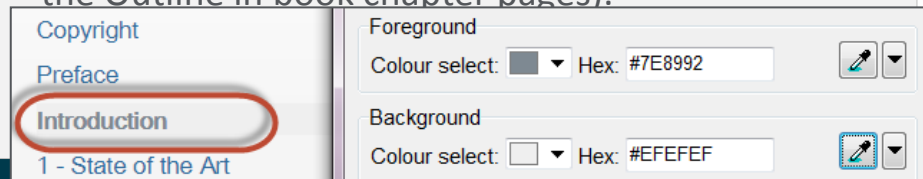[Level AA W3C Guideline](#)

Supports with Exceptions

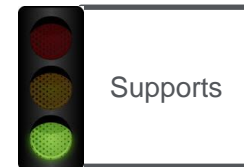| OVERALL RATING: Supports with Exceptions	
Examples of Supports ✅	**Examples of Does Not Support** ❌
• Blue links (#007398) that passes contrast ratios on a white background. • Dark grays text used on most pages (#737373 and #505050) which both pass contrast ratios on a white background.	• Red error text: #FF0000 is 4:1 against white background • "In press, c. proof" (green) is 3.23:1 against wh. background. • Blue link text on gray (shopping cart) • The placeholder text for text input on all pages (#A7A7A7 and #B5B5B5) does not pass contrast ratios. • "Open Access" orange text (#E9711C) on white background appearing pages such as the Search Results does not have enough contrast at 3.07:1. • Selected book section (e.g. "Introduction" text for the Outline in book chapter pages).

Copyright
Preface
Introduction
1 - State of the Art

Foreground
Colour select: [ ] ▼ Hex: #7E8992

Background
Colour select: [ ] ▼ Hex: #EFEFEF

Workarounds and User Tips 🔧

Users can disable styles or apply their own style sheets that can show their own preferred color contrast values.

WCAG 2.0 1.4.4 Resize Text

Text can be enlarged up to 200% without loss of functionality.
Level AA W3C Guideline

Supports

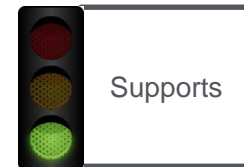| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• Upon high levels of text magnification, site reverts to the mobile view. This view remains accessible to mouse and keyboard users. • Multiple column layouts become are responsive, becoming two-column, and single-column layouts as text magnification increases.	No violations found by evaluators

Workarounds and User Tips 🔧

• Text magnification options can be found in all browser options.
• When using browser zoom, left side navigation and top navigation collapse down into expandable "hamburger menus".

WCAG 2.0 1.4.5 Images of Text

Text is used rather than images of text.
[Level AA W3C Guideline](#)

Supports

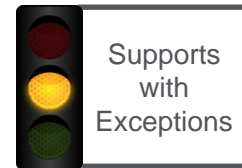| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• No images of text are used on ScienceDirect. • NOTE: Figures created by authors are images which contain text. However the W3C exempts "pictures that contain other significant other visual content including graphs and diagrams". Therefore the figure content in books and journals which contain text are exempt from this requirement.	No violations found by evaluators

Workarounds and User Tips 🔧

None

WCAG 2.0 2.1.1 Keyboard

All functionality is available from a keyboard.

[Level A W3C Guideline](#)

Supports
with
Exceptions

| OVERALL RATING: Supports with Exceptions	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• Nearly all primary functionality in ScienceDirect is operable using the keyboard alone. • The audioslides media player provides keyboard friendly controls.	• "Download PDF" button on Journal Article/Book Chapters. • "Book Contents" and "Chapter Contents" tabs on Book Chapter pages. (coded as with tabindex="0"). • Flash audio clip player in articles (only available in Firefox)

Workarounds and User Tips 🔧

- Use the Tab key to move focus forward from one element to the next. Use Shift-Tab to move backwards.
- Dropdowns on the search result page such as Export and Sort can be opened and closed with the Enter key.
- Expand/collapse buttons such as figure options on an article or book chapter can be opened and closed with the Enter key.
- The media clips (audio, video) may be downloaded locally and used with an accessible media player.

WCAG 2.0 2.1.2 No Keyboard Trap

User does not become trapped on any elements when using the keyboard.
Level A W3C Guideline

Supports
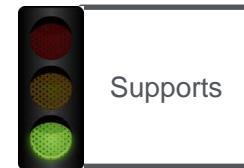
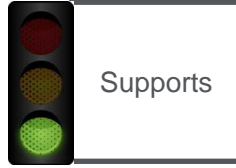| OVERALL RATING: Supports	
Examples of Supports ✓	**Examples of Does Not Support** ✗
• There are no keyboard traps on ScienceDirect.	NOTE: the flash player for inline author videos only displays in Firefox and suffers from the Firefox/Flash keyboard trap

Workarounds and User Tips 🔧

Users can hit the escape key to cancel out of any dialog or user interface overlay or menu.

WCAG 2.0 2.2.1 Timing Adjustable

Users are warned of time limits and time limits can be turned off or extended.
Level A W3C Guideline

Supports

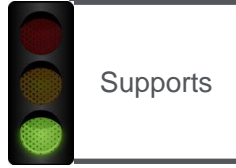**OVERALL RATING: Supports** *(no content to which this success criterion applies)*

- ScienceDirect does not contain any time limits, so the success criterion is satisfied according to the W3C's Understanding Conformance.

WCAG 2.0 2.2.2 Pause, Stop, Hide

Users can stop, pause, or hide moving or scrolling information.

[Level A W3C Guideline](#)

Supports

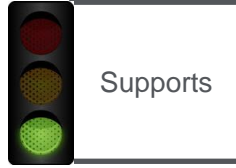| OVERALL RATING: Supports *(no content to which this success criterion applies)* |
|---|
| • ScienceDirect does not contain any moving, blinking, scrolling, or auto-updating content, so the success criterion is satisfied according to the [W3C's Understanding Conformance.](#) |

WCAG 2.0 2.3.1 Three Flashes or Below Threshold

No more than three flashes in a 1-second period.

Level A W3C Guideline

Supports

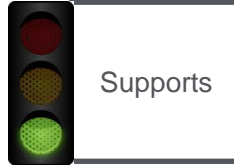**OVERALL RATING: Supports** *(no content to which this success criterion applies)*

- ScienceDirect does not contain any content that flashes, so the success criterion is satisfied according to the W3C's Understanding Conformance.

WCAG 2.0 2.4.1 Bypass Blocks

Users can bypass repetitive blocks of content, such as navigation menus.
[Level A W3C Guideline](#)

Supports

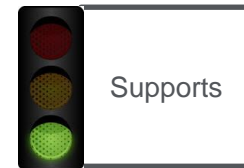| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• A "Skip to main content" link has be implemented to allow keyboard users to reach the main content of the page easily. • Many headings exist on all pages to allow for screen reader users to utilize heading navigation. • Landmarks are applied in many areas to allow for landmark navigation by screen readers. Regions roles are applied to several areas of content and are properly labeled. • Article and book chapter pages provide a left side table of contents according to the heading structure of content.	No violations found by evaluators

Workarounds and User Tips 🔧

Screen reader users (e.g. JAWS) can utilize headings navigation, landmark navigation, lists navigation, link navigation, etc. as ways to bypass repetitive links.

WCAG 2.0 2.4.2 Page Titled

The page has a title describing its topic or purpose.
Level A W3C Guideline

Supports

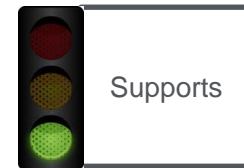| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• A unique title has been applied to all pages, providing a similar page description to the h1 of each page. These titles are descriptive and informative (e.g. "1,517,391 Search Results – Keywords(heart) – ScienceDirect").	No violations found by evaluators

Workarounds and User Tips 🔧

Screen reader users (e.g. JAWS) can bring up titles of web pages using INSERT + T.

WCAG 2.0 2.4.3 Focus Order

Users can tab through the elements of a page in a logical order.
Level A W3C Guideline

Supports

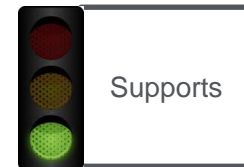| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• A logical keyboard focus order is maintained throughout nearly all of ScienceDirect. • Dialog windows and fly out panels receive focus when opened. • Many dropdowns close automatically after tabbing out of them. • Activating a TOC outline section or reference sets the user's focus into the article to the associated spot. • Focus remains on "Show More/Less" links when being activated.	• When closing the workspace panel, focus should be moved back to the original article invoking link. Focus jumps to the footer now.

Workarounds and User Tips 🔧

None

WCAG 2.0 2.4.4 Link Purpose (In Context)

The purpose of each link can be determined from the link text or context.
Level A W3C Guideline

Supports

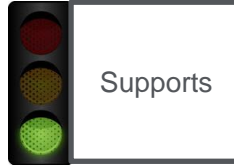| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• Links provide a description of the destination or the action. • For example: "View more documents authored by Doe, J" • For repeated links where there is some ambiguity (e.g. Download PDF, Abstract, Export Citation) we apply aria references to clarify the container document. This is also done for "Show more" within the results filter function. Any ambiguously labelled links are within the same list structure, under a heading, or within a sentence which provides context.	No violations found by evaluators

Workarounds and User Tips 🔧

Screen reader users receive extra context from some links, e.g. "PDF" by using arrow navigation instead of tab navigation. Arrow navigation will in some cases yield aria-describedby references such as the parent article of the "PDF" link.

WCAG 2.0 2.4.5 Multiple Ways

More than one way is available to navigate to other web pages.
Level AA W3C Guideline

Supports

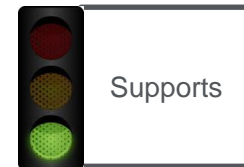| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• Journal Articles and Book Chapters can be found through the search functionality or through the Journals and Books pages. • Users can scroll through articles or chapters, or they can use the outline provided to help with navigation.	N/A

Workarounds and User Tips 🔧

Users are able to bookmark any page, book, journal, article, chapter etc. because ScienceDirect utilizes well formed URLs.

WCAG 2.0 2.4.6 Headings and Labels

Headings and labels are clear, consistent, and accurate**.**
[Level AA W3C Guideline](#)

Supports

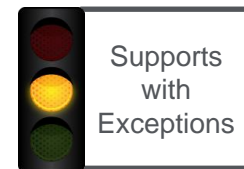| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• When headings and labels are provided they are descriptive, concise, and accurate across ScienceDirect. • Each section of content within ScienceDirect is supplemented by an associated descriptive heading. • Lists of journals, books, and articles, are displayed consistently across ScienceDirect. • Form fields are labelled clearly.	No violations found by evaluators

Workarounds and User Tips 🔧

Screen reader users can bring up a list of headings or form fields for the page. Descriptive headings and labels will make this list discernable.

WCAG 2.0 2.4.7 Focus Visible

All interactive elements on a page have a visible focus indicator.
Level AA W3C Guideline

Supports
with
Exceptions

OVERALL RATING: Supports with Exceptions

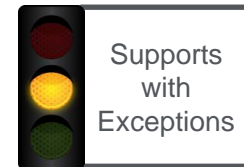| Examples of Supports ✓	Examples of Does Not Support ✗
• All text links get underlined on focus and receive the browser default outline. • Main navigation links change color and get underlined on focus. • Buttons and form elements change color on focus. • **Note**: (e.g. Legacy search pages: search buttons, Download Selected Articles link only have the browser default focus indicator).	• "Book Contents" and "Chapter Contents" tabs on Book Chapter pages). • Article page: (Options split button, Help with XYZ files, buttons to locate/access article).

Workarounds and User Tips 🔧

• If keyboard users are having trouble identifying links, disable style sheets or apply a custom style sheet which provides stronger indication (e.g. underlined) links.
• Links are always identified with an underline if users hover or tab to a link.

WCAG 2.0 3.1.1 Language of Page

The language of the web page is specified.

[Level A W3C Guideline](#)

Supports with Exceptions

OVERALL RATING: Supports with Exceptions	
Examples of Supports ✓	**Examples of Does Not Support** ✗
• All new pages either have lang="en-us" or lang="en" in the <html> tag (e.g. Homepage, Search Results, Journal Articles).	• Legacy pages do not have a specified page language (e.g. Book chapter pages, Journals, Books, Legacy Book and Journal Homepages, Shopping Cart). • PDF book chapters and journal articles do not identify the document language.

Workarounds and User Tips 🔧

Most content is in English where page content should be read fine by a screen reader set to use an English synthesizer.

WCAG 2.0 3.1.2 Language of Parts

The language of passages of text that differ from the default are specified.
[Level AA W3C Guideline](#)

Supports with Exceptions

OVERALL RATING: Supports with Exceptions	
Examples of Supports ✔️	**Examples of Does Not Support** ❌

• [Non-English HTML articles](#) have the appropriate lang attributes on:
   • Article outline
   • Main container on journal article pages.
	• Non-English HTML articles do not have lang attributes on:
	   • Journal issue pages (title, abstract previews)
	   • Journals/Books browse (publication title)
	• Non-English HTML book chapters to not have lang attributes on:
	   • Book contents/Chapter Contents
	   • Chapter body text

Workarounds and User Tips 🔧

None
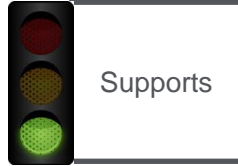
WCAG 2.0 3.2.1 On Focus

Elements that receive focus do not cause unexpected changes in context.
[Level A W3C Guideline](#)

Supports

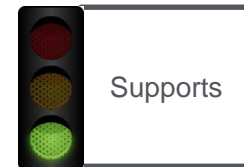| OVERALL RATING: Supports	
Examples of Supports ✔️	**Examples of Does Not Support** ❌
• No components trigger changes in context when they receive focus.	No violations found by evaluators

Workarounds and User Tips 🔧

None

WCAG 2.0 3.2.2 On Input

Changing an input or UI element does not cause unexpected changes.
Level A W3C Guideline

Supports

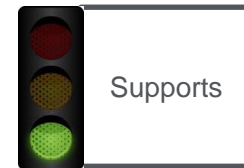| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• Search filter changes automatically filter results upon changing the setting of a checkbox. This is notified to screen reader users with an aria-label on a region.	No violations found by evaluators

Workarounds and User Tips 🔧

Downloading a PDF article or book chapter opens a new browser with the PDF.
The original browser window displays a suggested articles dialog window and focus is set to this dialog window.
Users may turn off suggested articles by selecting "Don't show this again".

WCAG 2.0 3.2.3 Consistent Navigation

Navigation menus are in the same location and order on all pages.
Level AA W3C Guideline

Supports

OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• Header navigation is the same across all pages and only changes when a user is logged out or logged in. • The search functionality is consistently located below the banner. • A main landmark consistently marks the main content of pages. • Note: The look and visual location of the search inputs is slightly different between the new and legacy pages. The DOM order of the inputs is consistent, however.	No violations found by evaluators

Workarounds and User Tips 🔧

Screen reader users may navigate directly to search or to the main content using regions navigation.

WCAG 2.0 3.2.4 Consistent Identification

UI components used across all pages are identified consistently.
Level AA W3C Guideline

Supports
with
Exceptions

OVERALL RATING: Supports with Exceptions
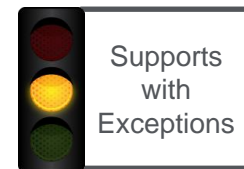
Examples of Supports ✓	Examples of Does Not Support ✗
• UI components are consistent across new pages and similarly across legacy pages.	• Differences in new and legacy UI elements cause inconsistency in how these components are identified (e.g. "Download PDF" versus "Download full text in PDF" • Or for results: "Download" versus "Download PDFs" versus "Download selected articles". • "Advanced Search" versus "Advanced"

Workarounds and User Tips 🔧
None

WCAG 2.0 3.3.1 Error Identification

Input errors are clearly marked and described to the user.

Level A W3C Guideline

Supports
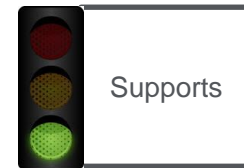
OVERALL RATING: Supports	
Examples of Supports ✓	**Examples of Does Not Support** ✗
• Sign In and Register pages show specific and descriptive input error messages below the associated input in red text. • Error text below the inputs is connected to the input itself through the use of aria-describedby attributes. • Errors on the sign in pages are communicated to assistive technology through aria alerts. • Error on the search term (e.g. Search term has to be entered) is comcommunicated to assistive technology through aria alerts.	No violations found by evaluators

Workarounds and User Tips 🔧

None

WCAG 2.0 3.3.2 Labels or Instructions

Items requiring user input are clearly labeled or have clear instructions.
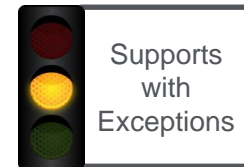Level A W3C Guideline

Supports
with
Exceptions

OVERALL RATING: Supports with Exceptions

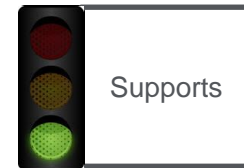| Examples of Supports ✔	Examples of Does Not Support ✖
• Most input elements are labeled through the use of plain text labels or aria-labels. (e.g. Quick search inputs, Refine result checkboxes). • Many legacy inputs use titles as the accessible name alone, which is sufficient for most screen readers and browsers (e.g. Legacy quick search input, Search within book input). • Query examples are provided in the Expert search field. • Create an account provides aria-required to denote mandatory fields.	• Individual search result checkboxes are missing label text. (e.g. "select document for download") • Select all search results checkbox • Form inputs which only use placeholders as text (search on article page, volume and issue on quick search need a title) • The legacy Advanced search page does not use label for some form fields. • Advanced search multiple select instructions should be part of the form label. • Change password provides new password length but this is not incorporated into the label. • My account & privacy contains fields that do not have programmatic field labels (Address). • My account & privacy required fields are marked with an asterisk, but this is not connected to the input label. • Phone number, State/Province have adjacent instructions which are not programmatically connected to the inputs. • Shopping cart checkboxes

Workarounds and User Tips 🔧
None

WCAG 2.0 3.3.3 Error Suggestion

When a user makes an input error, give suggestions for valid input.
Level AA W3C Guideline

Supports

OVERALL RATING: Supports	
Examples of Supports ✓	**Examples of Does Not Support** ✗
• The error messages given in the Login and Register pages serve as acceptable error suggestions. • For example a user who does not have a valid email address will get "User E-mail address may be invalid." • Required fields that are left blank will result in an error message indicating that the field must be completed. • Password guidelines which are not met clearly state acceptable lengths of passwords. Additionally there is a link to the password guidelines page adjacent to the password input field.	No violations found by evaluators

Workarounds and User Tips 🔧

None

WCAG 2.0 3.3.4 Error Prevention (legal, financial, data)
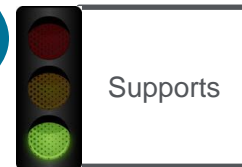
For web pages with legal or financial commitments, users can review and correct information.

Level AA W3C Guideline

Supports

OVERALL RATING: Supports with Exceptions	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• The Shopping cart feature provides a way to review and modify a purchase before submitting. • User account data such as name, email, and address information at any time by logging in and going to My Account & Privacy.	No violations found by evaluators

Workarounds and User Tips 🔧
None

WCAG 2.0 4.1.1 Parsing

Use valid, error-free HTML, including unique element IDs.

[Level A W3C Guideline](#)

Supports
with
Exceptions

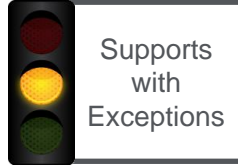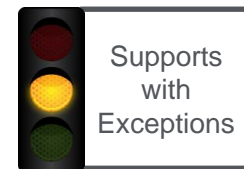| OVERALL RATING: Supports with Exceptions	
Examples of Supports ✔	**Examples of Does Not Support** ❌
• Elements have complete start and end tags, • Elements are nested according to their specifications • Elements do not contain duplicate attributes • IDs are unique on all New pages. • Note: There are other general validation errors outside the scope of this criterion.	• Most legacy pages have a couple instances of duplicate IDs (e.g. id="REFWX" in the legacy export dropdown, containing <form> and quick search input have the same id="quickSearch" on Book chapter pages). • There are two instances of id="els-header-user-sign-in" with the sign in link in the banner. • Journals/books subject filter: id="subTreeLabel: • Publication type filter items id="access_JL" • Article: 2 id="header", 2 id="quickSearch" • Books/Journals: contain <div> before the elements.

Workarounds and User Tips 🔧

None

WCAG 2.0 4.1.2 Name, Role, Value

The name, role, and value of all UI elements can be programmatically determined.
Level A W3C Guideline

Supports
with
Exceptions

OVERALL RATING: Supports with Exceptions

Examples of Supports ✔	Examples of Does Not Support ✘
• Dropdowns are given aria-expanded attribute to indicate expanded or collapsed content to screen readers. • Aria landmark roles are in extensive use on all pages, including banner, main, navigation, search, and labeled region roles. • Repeated links are given aria-describedby attributes in the search results so they are easily connected with their associated result (Download PDF, Abstract, Export Citation).	• A few instances of incorrectly applied aria attributes exist in legacy pages, such as the use of aria-expanded on a non-interactive element (Export dropdown). • The Usabilla (3rd party) feedback button is a HTML page with an image within an iFrame but should be a button or link with an accessible name. • Hamburger menu has aria-controls with a blank reference.

Workarounds and User Tips 🔧

Screen reader users receive extra context from some links, e.g. "PDF" by using arrow navigation instead of tab navigation. Arrow navigation will in some cases yield aria-describedby references such as the parent article of the "PDF" link.

US 508: Chapter 3: Functional Support Criteria

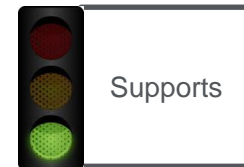| Criteria	Conformance Level	Remarks and Explanations
302.1 Without Vision	Supports	ScienceDirect User Interface is compatible with screen readers such as JAWS, NVDA. Book, journal, and table content is in HTML and partially tagged PDF. Videos do not have audio description. Figures only have alt text from either the surrounding text and/or captions.
302.2 With Limited Vision	Supports	Style sheets separate presentation from content. Personal style sheets and Operating System contrast can be applied. Browser Zoom and Screen magnification apps are supported.
302.3 Without Perception of Color	Supports	ScienceDirect does not require color perception.
302.4 Without Hearing	Does not Support	Videos do not provide closed captions.
302.5 With Limited Hearing	Supports	Independent volume control is present for video content.
302.6 Without Speech	Supports	ScienceDirect does not require speech input. Customer support offers live text chat or email.
302.7 With Limited Manipulation	Supports	ScienceDirect provides labels to make form controls easier to select. Elements have accessible name and can be operated using speech input or screen magnification.
302.8 With Limited Reach and Strength	Supports	Does not apply
302.9 With Limited Language, Cognitive, and Learning Abilities	Supports	ScienceDirect offers compatibility with text to speech (e.g. Read and Write Gold). Articles are provided with summaries to highlight main points in simple English. Book content is broken up into smaller sections. Screen may be magnified to simplify user interface.

US 508: Chapter 6: Support Documentation and Services

508 Criterion	Conformance Level	Remarks and Explanations
602 Support Documentation	**N/A**	Heading cell – no response required
602.2 Accessibility and Compatibility Features		**Supports**
602.3 Electronic Support Documentation	**N/A**	Heading cell – no response required
602.3.1 Documentation is WCAG 2 Conformant		**Supports with Exceptions**
602.3.2 Alternate Formats		**Supports**
603 Support Services	**N/A**	Heading cell – no response required
603.2 Information on Accessibility and Compatibility Features		**Supports**
603.3 Accommodation of Communication Needs		**Supports**

508 602.2 Accessibility and Compatibility Features

Documentation shall list and explain how to use the accessibility and compatibility features.
508 Chapter 6

Supports

OVERALL RATING: Supports	
Examples of Supports ✔️	**Examples of Does Not Support** ❌
• This VPAT provides descriptions of accessibility features as well as work arounds and user tips for users of assistive technology. • Details on accessibility features grouped by functional area (e.g. Screen Reader, Keyboard) are on the web accessibility support page: https://www.elsevier.com/solutions/sciencedirect/support/web-accessibility	No violations found by evaluators

Workarounds and User Tips 🔧

• Send an email to accessibility@elsevier.com for any additional questions on accessibility and assistive technology compatibility features.

508 602.3 Electronic Support Documentation
602.3.1 WCAG Conformant

Documentation in electronic format shall conform to all Level A and Level AA
[508 Chapter 6](#)

Supports
with
Exceptions

OVERALL RATING: Supports with Exceptions	
Examples of Supports ✓	**Examples of Does Not Support** ✗
• The ScienceDirect Support Center is a set of searchable HTML pages organized by topic. • There are WCAG 2.0 A and AA supported pages with only a few exceptions.	• Exceptions can be found on the next page of WCAG requirements.

Workarounds and User Tips 🔧

- The helps system is called the ScienceDirect Support Center: service.elsevier.com/app/home/supporthub/sciencedirect
- Send an email to accessibility@elsevier.com for any additional questions on accessibility and assistive technology compatibility features.

WCAG 2.0 Success Criterion	Level	Evaluation	Remarks
1.1.1 Non-text Content	A	Supports w/ exceptions	Hamburger has alt text, Some video tutorials have transcripts.
1.2.1 Audio-only and Video-only (Prerecorded)	A	Supports	Tutorials have HTML transcripts or equivalent how to sections in HTML.
1.2.2 Captions (Prerecorded)	A	Supports (N/A)	No video with audio exists
1.2.3 Audio Description or Full Text Alternative	A	Supports	Tutorials have HTM: transcripts
1.2.4 Captions (Live)	AA	Supports (N/A)	No live video exists
1.2.5 Audio Description	AA	Does Not Support	Video tutorials have captions but not audio description
1.3.1 Info and Relationships	A	Supports	Headings, lists, and labels are used appropriately
1.3.2 Meaningful Sequence	A	Supports	Content has a meaningful reading order and is read fine by screen readers
1.3.3 Sensory Characteristics	A	Supports	Content does not rely on sensory characteristics such as color or shape
1.4.1 Use of Color	A	Supports	Text links within text paragraphs provide an arrow icon or underline
1.4.2 Audio Control	A	Supports (N/A)	There is no audio that auto-plays
1.4.3 Contrast (Minimum)	AA	Supports w/ Exceptions	Orange text on white and gray form instructions on white do not pass
1.4.4 Resize text	AA	Supports	The user interface is usable when zoomed 200%
1.4.5 Images of Text	AA	Supports w/ Exceptions	Text is used for text content except on the Flash tutorials
2.1.1 Keyboard	A	Supports w/ Exception	Everything is keyboard operable aside from the spine menu
2.1.2 No Keyboard Trap	A	Supports	No keyboard trap exists
2.2.1 Timing Adjustable	A	Supports (N/A)	No timeouts exist
2.2.2 Pause, Stop, Hide	A	Supports (N/A)	No videos auto play
2.3.1 Three Flashes or Below Threshold	A	Supports (N/A)	There is no flashing content
2.4.1 Bypass Blocks	A	Supports w/ Exceptions	Supports navigation by landmarks, headings, lists. No skip to main content
2.4.2 Page Titled	A	Supports	Page titles include page name and system name
2.4.3 Focus Order	A	Supports	Focus order is logical throughout
2.4.4 Link Purpose (In Context)	A	Supports	Purpose of links can be determined from link text or fro context
2.4.5 Multiple Ways	AA	Supports	Content is available through search or browse
2.4.6 Headings and Labels	AA	Supports	Headings and labels are clear and consistent
2.4.7 Focus Visible	AA	Supports w/ Exceptions	Some links and buttons change color on focus, some receive browser default
3.1.1 Language of Page	A	Supports	Page language is defined on the HTML element
3.1.2 Language of Parts	AA	Supports (N/A)	All content is in English
3.2.1 On Focus	A	Supports	No examples of unexpected actions on focus
3.2.2 On Input	A	Supports	No examples of changes of context based upon setting of UI components
3.2.3 Consistent Navigation	AA	Supports	Navigation, search, and related content is consistent across pages
3.2.4 Consistent Identification	AA	Supports w/ Exceptions	Components with the same functionality are identified consistently
3.3.1 Error Identification	A	Does not Support	Error messages are identified only using red color and are not inside label
3.3.2 Labels or Instructions	A	Supports w/ Exceptions	Most labels are programmatically correct, but gray tip text not part of label
3.3.3 Error Suggestion	AA	Supports w/ Exceptions	Error suggestions are present, but *valid* versus *not filled in correctly* not clear
3.3.4 Error Prevention (Legal, Financial, Data)	AA	Supports (N/A)	No web pages in support that cause legal commitments et al.
4.1.1 Parsing	A	Supports	No violations
4.1.2 Name, Role, Value	A	Supports w/ Exceptions	Most elements have name, role, value. Search box and button are unlabeled

508 602.3 Electronic Support Documentation
602.3.2 Alternate Formats

Alternate Formats shall be provided upon request
508 Chapter 6

Supports
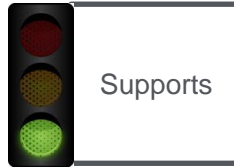
OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• The support documentation consists of: FAQ, ScienceDirect Support/Help Center, HTML pages, e.g. How can I setup and manage my alerts?, and Tutorials/Training. • Alt formats that can be generated include: PDF, HTML, and Excel. • Flash tutorials have HTML equivalents	No violations found by evaluators

| **Workarounds and User Tips** 🔧 |
|---|
| The page with Tutorials and links to HTML versions is: https://service.elsevier.com/app/answers/detail/a_id/10263/supporthub/sciencedirect/

Send an email to accessibility@elsevier.com to request alternate formats for documentation or for any additional questions on accessibility and assistive technology compatibility features. |

508 603.2 Info on A11y and Compatibility Features

When ICT support services provide documentation, materials shall conform to 602.3
508 Chapter 6

Supports
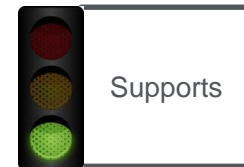
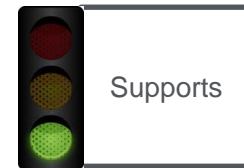| OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✘
• This document describes information on the accessibility and compatibility features. • The ScienceDirect Accessibility Statement with a description of accessibility features can be found at: https://www.elsevier.com/solutions/sciencedirect/support/web-accessibility • Our company provides a free web accessibility fundamentals course for staff to learn about people with disabilities and digital accessibility topics.	No violations found by evaluators

Workarounds and User Tips 🔧

Send an email to accessibility@elsevier.com for any additional questions on accessibility and assistive technology compatibility features.

508 603.3 Accommodation of Communication Needs

When ICT support services provide documentation, materials shall conform to 602.3

508 Chapter 6

Supports

OVERALL RATING: Supports	
Examples of Supports ✔	**Examples of Does Not Support** ✖
• Users can contact the help desk through: • Email (web form) • Chat (web interface) • Phone	No violations found by evaluators

Workarounds and User Tips 🔧

The Support center main page can be found at:
https://service.elsevier.com/app/contact/supporthub/sciencedirect/

Send an email to accessibility@elsevier.com for any additional questions on accessibility and assistive technology compatibility features.

To Learn More About ScienceDirect Accessibility

- ScienceDirect Accessibility Product Page
- CSUN Conference Presentation on Article of the Future
- Elsevier Accessibility Checklist: http://romeo.elsevier.com/accessibility_checklist/

- Elsevier Company Accessibility Policy
- Contact accessibility@elsevier.com for support or to join the Elsevier accessibility collaboration group.
- Why Web Accessibility is the new Usability