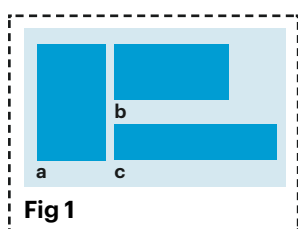


Once your manuscript is accepted, the art team at *Nature Reviews* will require high-resolution, editable figure files. This guide applies to images, graphs or illustrations that you have prepared, as well as those from third-party authors. Our in-house art team will re-draw elements of your figures (after peer review) and lay out the final version.

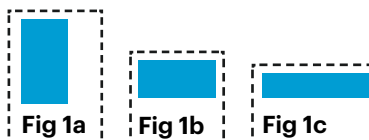
These specifications are in place so that we are able to create your figures in the highest quality. We want to ensure that any data-focused figures or images we are reproducing are clear, attractive, and that information is represented consistently across multiple panels.

Please complete these two important steps after peer review, when requested by the editor:

**1** Please send each whole figure with all of the panels included and arranged in the intended layout (e.g. Fig 1.pdf)



**2** Please send each individual figure panel as a separate file, saved directly from the original program that it was created in (e.g. Fig 1a.pdf, Fig 1b.pdf). We have found that when figure panels are combined into the final layout the editability and quality can deteriorate. If we have the individual figure panels we can rebuild the figure using these files, using the whole figure as a reference.



## Saving individual figure panels

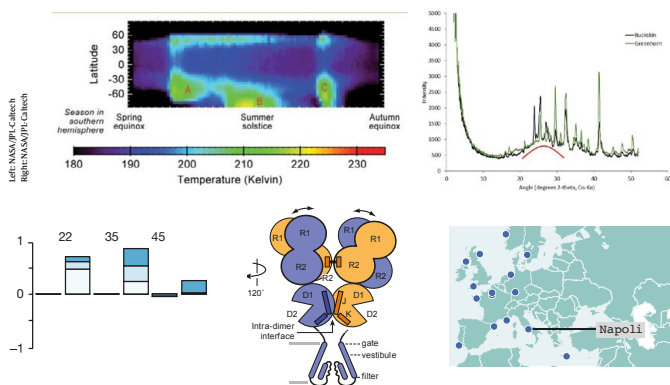
**Vector:** AI, EPS, PDF

**Important.** Save data-focused figures such as graphs and charts as vector files: AI, EPS, PDF.

All data-focused figures such as graphs should be saved/exported directly from the original application and file in which they were created as AI, EPS or PDF.

- To create vector files, open the original figure file in the application that it was created in. The text, data, lines and colours in this file should be editable. Directly save/export the file as one of these file formats: AI, EPS or PDF. We cannot use bitmapped file types such as BMP, GIF, GIMP, JPG, PNG, Tex or TIFF for vector art.

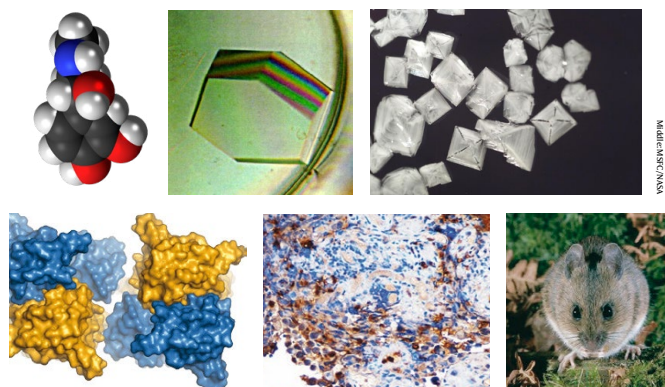
Examples of figure types that should be supplied in vector/editable format



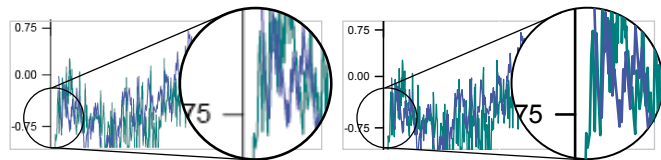
**Bitmap:** BMP, GIF, GIMP, JPG, PNG, Tex, TIFF

- All photos and complex technical illustrations, e.g. 3D-rendered graphics, should be directly saved/scanned in *at least* 300 dpi resolution at the maximum size that you have available.
- Do not artificially increase the resolution of images in graphics applications such as Photoshop as this does not improve quality. Images should retain the best available resolution of the source files.

Examples of figure types that should be supplied as high-resolution bitmaps



## Difference between bitmap and vector



Bitmap

Vector

The pixelation becomes more apparent on bitmapped images the closer the reader zooms in.

## Difference between high- and low-resolution images

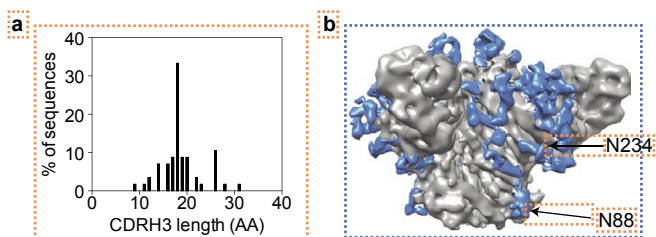


The pixelation becomes more apparent on low-resolution images the closer the reader zooms in.

## Combining panels into the whole figure

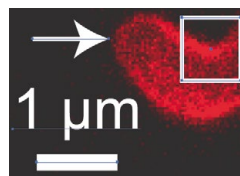
- When arranging your figure panels into one file for the intended layout of the whole figure, use a vector-based application such as Adobe Illustrator or Microsoft PowerPoint, as these retain the resolution and editability of the source files. Save as: AI, EPS, PDF or PPT
- Please also save the individual panels using the instructions outlined above and send them separately to us.
- Do not use applications that do not support vector format. Unless the whole figure is a clean image or a schematic that will be redrawn entirely, we do not accept: BMP, GIF, GIMP, JPG, PNG, Tex, TIFF.
- Microsoft Word and Adobe Photoshop: We do not recommend using these because images can lose editability and resolution can be degraded.
- Place all bitmapped images into the layout application at least 300dpi (500dpi is recommended) or at the native resolution if captured at less than the optimal 300dpi.
- All text, annotation and scale bars should be in editable format and laid over the bitmapped images.

## Examples of text, annotation and scale bars that should remain separate and editable

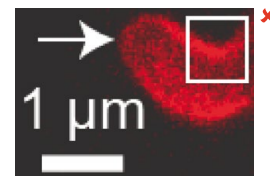


a Vector parts that should be separate and editable.

b Bitmapped parts that should be separate and at least 300dpi resolution.



All overlaid elements are separate and editable



All elements have been flattened and are not editable

## Figure sizes

- Figures are published in portrait orientation.
- Maximum figure size: 180mm (w) x 215 mm (h).

## Text

- Use 8pt when preparing your figures. This is the font size that will be used.
- Use italic text for single-letter variables; multi-letter variables are upright.
- Use bold for vectors.
- Units should be given using superscript numbers (e.g.  $\text{kJ mol}^{-1}$  rather than  $\text{kJ/mol}$ ).

## Colour

- Figures should be supplied in CMYK colour mode.

## Chemical structures

- If you are supplying a composite figure in a format other than .cdx but it contains ChemDraw structures, please also supply the ChemDraw elements in a separate .cdx file following the style guidelines. Please refer to the [Chemical Structure Guide](#) and use the [downloadable template](#) to format your structures. If including

the structure in your favoured layout requires it to use a font smaller than 5 or 6 point Arial font, please reconsider either the layout or the inclusion of the structure.

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