

Mathematical Scripts

Special care should be taken with mathematical scripts, especially subscripts and superscripts and differentiation between the letter “ell” and the figure one, and the letter “oh” and the figure zero.

If your keyboard or PC does not have the characters you need, or when using longhand, it is important to differentiate between: K and k; X, x and \times (multiplication); asterisks intended to appear when published as multiplication signs and those intended to remain as asterisks; etc.

Special symbols, and others used to stand for symbols not available in the character set of your PC, should be highlighted in the text and explained in the margin. In some cases it is helpful to supply annotated lists of symbols for the guidance of the sub-editor and the typesetter, and/or a “Nomenclature” section preceding the “Introduction”.

- In both displayed equations and in text, scalar variables must be in italics, with non-variable matter in upright type.
- For simple fractions in the text, the solidus “/” should be used instead of a horizontal line, care being taken to insert parentheses where necessary to avoid ambiguity. Exceptions are the proper fractions available as single type on keyboards and in character sets (e.g. $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$).
- The solidus is not generally used for units: m s⁻¹ not m/s, but note electrons/s, counts/channel, etc.
- Displayed equations referred to in the text should be numbered serially ((1), (2), etc.) on the right-hand side of the page. Short expressions not referred to by any number will usually be incorporated in the text.
- Symbols used to represent tensors, matrices, vectors and scalar variables should either be used as required from the character set of the application you are using or marked on hard-copy by underlining with a wavy underline for bold, a straight underline for italic and a straight red underline for sans serif.
- The following styles are preferred: upright bold sans serif *r* for tensors, bold serif italic *r* for vectors, upright bold serif *r* for matrices, and mediumface sloping serif *r* for scalar variables. In mathematical expressions, the use of “d” for differential should be made clear and coded in roman, not italic.
- Typographical requirements must be clearly indicated at their first occurrence, e.g. Greek, Roman, script, sans serif, bold, italic. Authors will be charged for corrections at proof stage resulting from a failure to do so.
- Braces, brackets and parentheses are used in the order { [()] }, except where mathematical convention dictates otherwise (e.g. square brackets for commutators and anticommutators; braces for the exponent in exponentials).
- For units and symbols, the SI system should be used. Where measurements are given in other systems, conversion factors or conversions should be inserted by the author.
- Mathematical equations should preferably be typewritten, with subscripts and superscripts clearly shown. It is helpful to identify unusual or ambiguous symbols in the margin when they first occur. Please ensure all symbols are described in the text. If equations are numbered, consecutive Arabic numbers in parentheses should be used.

Equations may be referred to in the text as “equation (1)”, “equations (2)–(4)”. To simplify typesetting, please use: (1) the “exp” form of complex exponential functions; (2) fractional exponents instead of root signs; and (3) the solidus (/) to simplify fractions e.g. $\frac{3}{4}$, $\exp x^{1/2}$. Other letters not marked will be set in roman type. Please supply reproducible artwork for equations containing ring formulae and other complex chemical structures. Schemes should also be numbered with consecutive Arabic numbers.