This lesson show the basics of reference databases. Learn how to build your own databases and how to use them in documents using the two major workflows available.

1 Reference databases

Reference databases are normally referred to as 'BibTeX files' and have the extension `.bib`. They contain one or more entries, one for each reference, and within each entry there are a series of fields. Let us look at an example.

```
@article{Thomas2008,
   author  = {Thomas, Christine M. and Liu, Tianbiao and Hall, Michael B.
              and Darensbourg, Marcetta Y.},
   title   = {Series of Mixed Valent {Fe(II)Fe(I)} Complexes That Model the
              {H(OX)} State of [{FeFe}]Hydrogenase: Redox Properties,
              Density-Functional Theory Investigation, and Reactivity with
              Extrinsic {CO}},
   journal = {Inorg. Chem.},
   year    = {2008},
   volume  = {47},
   number  = {15},
   pages   = {7009-7024},
   doi     = {10.1021/ic800654a},
}
@book{Graham1995,
   author    = {Ronald L. Graham and Donald E. Knuth and Oren Patashnik},
   title     = {Concrete Mathematics},
   publisher = {Addison-Wesley},
   year      = {1995},
}
```

This is an entry for an article and another for a book; these are by far the most common types. Each database entry type starts with `@`, as shown, and all of the information then sits within a brace pair.

Exactly which fields you need to give depends on the type of entry, but most of these are quite obvious. You might notice that in the `author` field, each entry is separated by `and`. This is essential: the format of the output needs to know which author is which. You might also notice that in the article title, some entries are in an extra set of braces; these are there to prevent any case-changing being applied.

2 Transferring information from the database