

Title	Demonstrate knowledge of atomic electronic structure		
Level	5	Credits	4

Purpose	People credited with this unit standard are able to explain: the theory of atomic electronic structure; and the electronic configuration of elements.
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Classification	Science > Chemistry
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Explain the theory of atomic electronic structure.

Performance criteria

- 1.1 Quantum theory is described qualitatively as applied to electrons in atoms.
- 1.2 Line atomic spectra are explained in terms of quantum theory.

Outcome 2

Explain the electronic configuration of elements.

Performance criteria

- 2.1 The symbols of the quantum numbers are written and explained in terms of their significance.
- Range principal, azimuthal, magnetic, spin projection.
- 2.2 The electronic configuration of any element is written given its atomic number, in terms of the quantum number and orbital type.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 September 1996	31 December 2014
Revision	2	19 February 1998	31 December 2014
Review	3	23 November 1999	31 December 2014
Review	4	18 June 2010	31 December 2022
Rollover	5	27 January 2015	31 December 2022
Rollover and Revision	6	15 June 2017	31 December 2022
Revision	7	26 October 2017	31 December 2022
Review	8	22 October 2020	31 December 2022

Consent and Moderation Requirements (CMR) reference	0113
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.