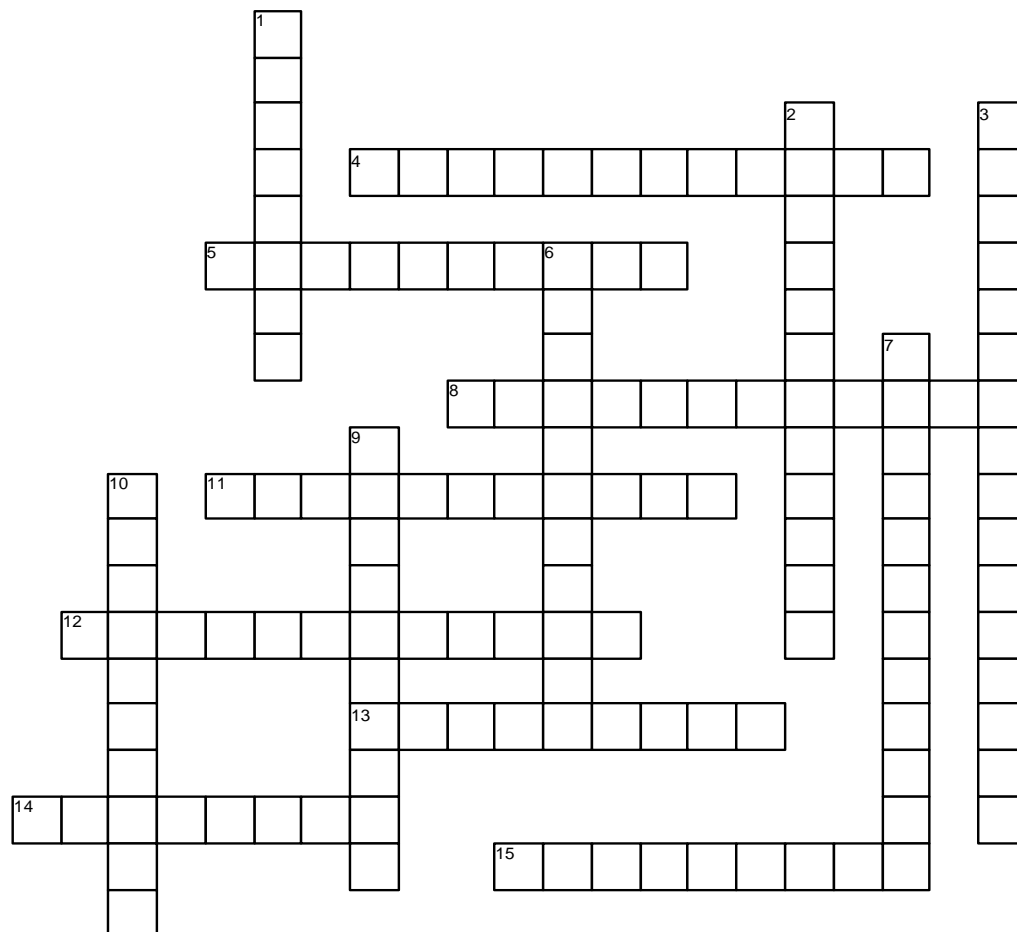


Wide-Band Oxygen Sensors

Chapter 25



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ACROSS

- 4 Fast heating is called _____-_____.
- 5 Another name for a conventional oxygen sensor is a _____.
- 8 A conventional oxygen sensor can be constructed using a _____ instead of the thimble-type design.
- 11 The _____ electrode is exposed to the outside air.
- 12 The typical single cell wide-band oxygen sensor, usually called an ____-_____ sensor, can be made using the cup or planar design.
- 13 Another name for the thimble design oxygen sensor is the _____.
- 14 A _____ planar-type wide-band oxygen sensor is made like a conventional planar O₂S.
- 15 The _____ chamber is exposed to the exhaust gases.

DOWN

- 1 Above the Nemst cell is another zirconia layer with two electrodes, which is called the _____.
- 2 The _____ chamber is exposed to ambient air.
- 3 In a conventional zirconia oxygen sensor, a bias or _____ can be applied to the two platinum electrodes, and then oxygen ions can be forced (pumped) from the ambient reference air side to the exhaust side of the sensor.
- 6 The _____ electrode is exposed to the exhaust stream.
- 7 A typical zirconia oxygen sensor has the sensing element in the shape of a thimble and is often referred to as a _____.
- 9 A typical _____ wide-band oxygen sensor looks similar to a conventional four-wire zirconia oxygen sensor.
- 10 Another name for the ambient side electrode is the _____ electrode.