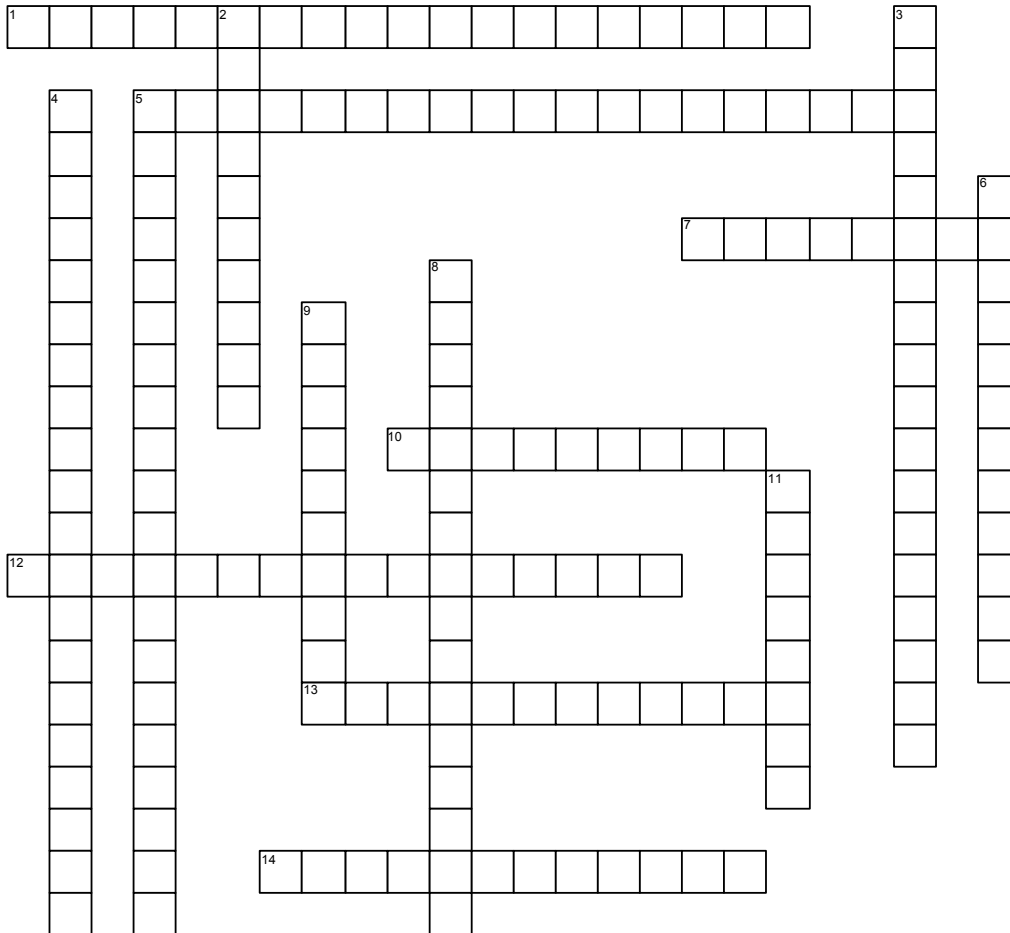


Wide-Band Oxygen Sensors

Chapter 20



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ACROSS

- 1 Another name for the ambient side electrode is the _____.
- 5 The _____ is exposed to ambient air.
- 7 Above the Nernst cell is another zirconia layer with two electrodes, which is called the _____.
- 10 Another name for the thimble design oxygen sensor is the _____.
- 12 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.
- 13 Fast heating is called _____.
- 14 A typical zirconia oxygen sensor has the sensing element in the shape of a thimble and is often referred to as a _____.

DOWN

- 2 Another name for a conventional oxygen sensor is a _____.
- 3 The typical single cell wide-band oxygen sensor, usually called an _____, can be made using the cup or planar design.
- 4 The _____ is exposed to the exhaust stream.
- 5 The _____ is exposed to the outside air.
- 6 A conventional oxygen sensor can be constructed using a _____ instead of the thimble-type design.
- 8 The _____ is exposed to the exhaust gases.
- 9 A typical _____ wide-band oxygen sensor looks similar to a conventional four-wire zirconia oxygen sensor.
- 11 A _____ planar-type wide-band oxygen sensor is made like a conventional planar O₂S.