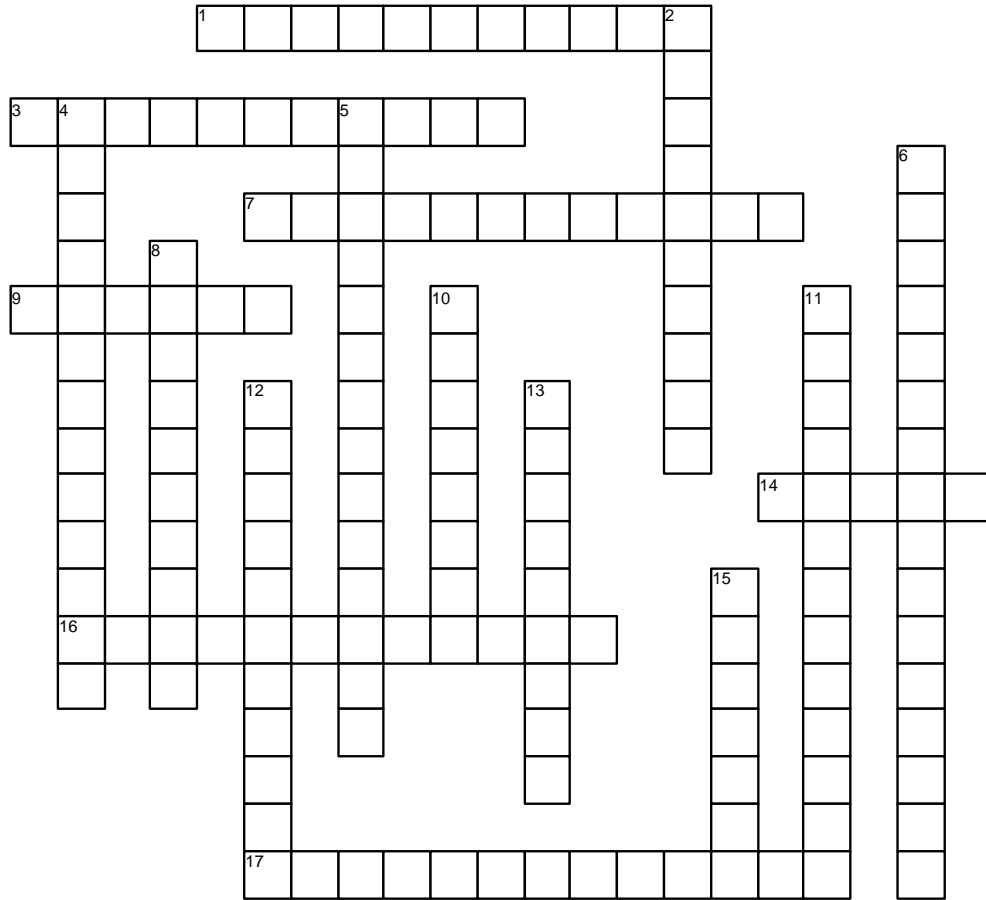


# Hybrid High-Voltage Batteries

## Chapter 92



<http://jameshalderman.com>

### ACROSS

- 1 The \_\_\_\_\_ type battery has the active materials made in long ribbons and arranged in a spiral fashion inside a steel case.
- 3 An \_\_\_\_\_ will carry an electrical charge.
- 7 NiMH uses a positive electrode made of nickel hydroxide and potassium hydroxide electrolyte. The negative electrode is unique, however, in that it is a hydrogen-absorbing alloy, also known as a \_\_\_\_\_.
- 9 \_\_\_-\_\_\_ is short for lithium-polymer.
- 14 The \_\_\_\_ battery was invented in 1985 by the Zeolite Battery Research Africa project.
- 16 Another lithium-ion cathode design is a \_\_\_\_\_ oxide design.
- 17 The HV battery pack controller monitors the \_\_\_\_-\_\_-\_\_\_\_\_.

### DOWN

- 2 A battery design that shows a great deal of promise for EVs and HEVs applications is \_\_\_\_\_-\_\_\_ technology.

- 4 The positive electrode in a conventional lithium-ion battery has \_\_\_\_\_ oxide as its main ingredient.
- 5 \_\_\_\_\_-\_\_\_\_\_ battery design came out of the development of solid-state electrolytes in the 1970s.
- 6 Always refer to the service manual for approved \_\_\_\_\_ when handling the HV battery pack.
- 8 Since lithium-polymer batteries use solid electrolytes, they are known as \_\_\_\_\_-\_\_\_\_\_ batteries.
- 10 The nickel-cadmium design is known as an \_\_\_\_\_ battery, because of the alkaline nature of its electrolyte.
- 11 Cylindrical cells are most often incorporated into modules with a group of six cells connected in series. This creates a single \_\_\_\_\_.
- 12 \_\_\_\_\_ are mounted in various locations in the battery pack housing to send data to the module responsible for controlling battery temperature.
- 13 The \_\_\_\_\_ type battery is a rectangular box-like design with the active materials formed into flat plates, much like a lead-acid battery.
- 15 The \_\_\_\_\_ battery design is a mechanically rechargeable battery.