How Does a Cube of Protein Store Info?

When a protein cube absorbs green light (A), it begins the *photocycle* process, in which the protein molecule changes its structure by moving a proton. When red light is then focused on individual molecules (B), a detector picks up a pattern of dark and light indicating binary states 0 and 1, forming the basis for writing and reading information. Protein has shown promise in high-density 3-D memory.

A

Laser arrays

Detector

Protein memory cube

B

Binary state 1

Detector

Binary state 0

Source: Robert R. Birge.