CHEMISTRY

Helping Hydrogen

DOT PATTERN: Vials of colloidal cadmium selenide fluoresce under ultraviolet light as part of a project by chemistry graduate students Zhiji Han and Fen Qiu, who worked in collaboration with Richard Eisenberg, the Tracy H. Harris Professor of Chemistry, and chemistry professors Todd Krauss and Patrick Holland. The team, which reported results last fall in the journal *Science*, is exploring the use of nanocrystals—also known as quantum dots—to increase the output and lower the cost of current light-based systems used to produce hydrogen, an effort that could affect the cost and viability of using sunlight to provide clean, carbon-free energy. The particle sizes increase from green (about 2.5 nm in diameter) to red (about 6 nm). **PHOTOGRAPH BY ADAM FENSTER**