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Pure Silicon Laser Debuts

"Researchers from the University of California at Los Angeles have made a prototype laser from the stuff of computer chips – silicon. The laser is tunable, meaning it can lase in a range of wavelengths, or colors, and it works at room temperature."

"The silicon laser could be used to provide optical wireless communications at a wavelength that is optimal for transmission through air and even fog, to detect chemicals and biological molecules, and to provide an infrared countermeasure capable of jamming heat-seeking missiles, according to researchers."

"The device promises to be compatible with today's manufacturing process because it amplifies light using the natural vibrations of silicon rather than a mix of materials or a particular nanoscale physical structure. This makes silicon lasers potentially inexpensive."

"A practical silicon Raman laser could be ready in two years. The work appeared in the October 18, 2004 issue of Optics Express."