Photos of the Day: Accelerator on a Chip

Nanofabricated chips of fused silica just 3 millimeters long were used to accelerate electrons at a rate 10 times higher than conventional particle accelerator technology. (Credit: Brad Plummer/SLAC)

The key to the accelerator chips is tiny, precisely spaced ridges, which cause the iridescence seen in this close-up photo. (Credit: Brad Plummer/SLAC)

The nanoscale patterns of SLAC and Stanford's accelerator on a chip gleam in rainbow colors prior to being assembled and cut into their final forms. (Credit: Matt Beardsley/SLAC)

Many of the SLAC and Stanford researchers who helped create the accelerator on a chip are pictured in SLAC's NLCTA lab where the experiments took place. Left to right: Robert Byer, Ken Soong, Dieter Walz, Ken Leedle, Ziran Wu, Edgar Peralta, Jim Spencer, and Joel England. (Credit: Matt Beardsley/SLAC)

This animation explains how the accelerator on a chip uses infrared laser light to accelerate electrons to increasingly higher energies. (Credit: Greg Stewart/SLAC)

SLAC's Joel England explains how the same fabrication techniques used for silicon computer microchips allowed their team to create the new laser-driven particle accelerator chips. (Credit: SLAC)

Click here to read the complete story. [1]

Links:
[1] http://www.mdtmag.com/news/2013/10/researchers-demonstrate-accelerator-chip