

Re: MICROMIRRORS CORRECT OPTICAL ERRORS

Source: <http://sci.tech-archive.net/Archive/sci.optics/2004-08/0032.html>

From: Joe Rongen (joe_at_alpha.to)

Date: 08/02/04

Date: Sun, 1 Aug 2004 23:14:04 -0400

"West Coast Engineering" <westcoastengineering@westcoastengineering.com>
wrote in message news:o59rg09fef0fiqs3m2odinka5bn54v9ria@4ax.com...

> "Joe Rongen" <joe@alpha.to> wrote:

>

>>

>> *MICROMIRRORS CORRECT OPTICAL ERRORS, July 31*

>> *Before undergoing laser eye surgery, patients are given a glimpse*

>> *of their future vision through an array of movable miniature mirrors.*

>> *The technique originated in astronomy, where secondary mirrors*

>> *in terres-trial telescopes correct distortions caused by the Earth's*

>> *atmosphere. Full story at <http://www.physorg.com/news603.html>*

>>

>>

>>

>>

>>---

>> *Outgoing mail is certified Virus Free.*

>> *Checked by AVG anti-virus system (<http://www.grisoft.com>).*

>> *Version: 6.0.732 / Virus Database: 486 - Release Date: 7/29/04*

>>

>

> *Total BULLSHIT.*

Jim, that would be an interesting point but only if you could justify it at least by a glimpse of a rational argument.

Quoted from the above link:

"... the problem is caused by optical defects in the cornea, lens or vitreous body of the eye. Researchers at the Fraunhofer Institute for Photonic Microsystems IPMS in Dresden have developed a microchip comprising so many tiny mirrors that it perfectly allows to correct such eye aberrations. "Patients can be given a foretaste of how their vision will be improved after laser surgery or being fitted with a new pair of spectacles," says Andreas Gehner of the IPMS.

sci.optics: Re: MICROMIRRORS CORRECT OPTICAL ERRORS

"A Shack–Hartmann sensor measures the light reflected back by the retina and calculates all refractive optical errors. The obtained data are used to drive the mirror chip." Nearly 50,000 square mirrors are integrated on an area of a thumbnail. Each element measures just 40 micrometers across – roughly half the diameter of a human hair. An underlying address circuitry allows each mirror to be individually lowered to the desired level.

The system is currently undergoing tests at the company 20/10 PERFECT VISION in Heidelberg, a partner of the IPMS. The technique is expected to become commercially available in one or two years. The high–resolution optical correction system is not only interesting to opticians. It could also prove useful in microscopy, helping to compensate for errors when researchers look through biological cell tissue. Or it could even be used to sharpen laser beams. Source: Fraunhofer–Gesellschaft"

=====

The Roman Rule The one who says it cannot be done should never interrupt the one who is doing it.

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (<http://www.grisoft.com>).
Version: 6.0.732 / Virus Database: 486 - Release Date: 7/29/04