

Nano-glasses can see body fluids

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The Nation

CRIME INVESTIGATORS will be spending a lot less time at crime scenes thanks to glasses developed by scientists at the National Science and Technology Development Agency (NSTDA) and King Mongkut's Institute of Technology Ladkrabang (KMITL).

The unique nano-crystal spectacles will make near invisible traces of body fluids very visible.

Jiti Nukaew, director of KMITL's Nanotechnology Research Centre and leader of the project, said yesterday nano-crystallised indium oxynitride applied to the lenses made them capable of filtering varying wavelengths of light.

"Nano-crystal glasses work as a filter to keep out blue, green and red light as well as ultraviolet rays including UV-A, UV-B and UV-C," Jiti explained.



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PRESENTERS yesterday show eyeglasses that can see 'invisible' body fluids.

of body fluid in one go.

Normally, they project UV rays onto the crime scene to make the proteins in the fluid react with the rays. Then, they wear customised eyeglasses that oper-

The team has applied for US patents on the material used - indium oxynitride - and the method - Reactive Gas-Timing Sputtering for Menthol Oxynitride.

With the glasses, investigators can detect more than one type

ate under yellow, orange and red lights. Each colour then works to block out the light with a different wavelength.

The project was funded by Bt5 million from the National Electronics and Computer Technology Centre, Nanotechnology Centre and NSTDA. Between 10 and 20 pairs will be delivered to the Central Institute of Forensic Science's Crime Scene Unit.

Somchai Chalernsooksant, chief of the unit, said the eyeglasses had already been used for several months in real investigations and he is satisfied with the results.

The eyeglasses can be developed for administering UV rays in medical or cosmetic treatment, laser surgery, protection for welders and sorting out black tiger prawns. Research is being planned to expand the technology to the medical and agricultural sectors and trial usage in other industries should begin early next year.

เอกสารนี้เป็นเอกสารที่สงวนไว้สำหรับการใช้งานเพื่อการศึกษาเท่านั้น ไม่อนุญาตให้นำไปใช้ประโยชน์ด้านการค้า
ไม่ว่ากรณีใดๆ ทั้งสิ้น อีกทั้งห้ามมิให้ดัดแปลงเนื้อหา และต้องอ้างอิงถึงเจ้าของเอกสารทุกครั้งที่มีการนำไปใช้