

**SCIENCE**

## NUS High scores big at Intel fair

TWO students from NUS High School of Mathematics and Science have come away with accolades in the Intel International Science and Engineering Fair, also known unofficially as the Olympics of science fairs.

This is the first year that NUS High has students competing in the fair.

On 16 May, Zhao Ye, 19, and Zhai Weichao, 19, won the team a First Award in physical sciences and a placing among the top 2 per cent of the more than 100 competing teams.

First Award winners, on top of

getting \$4,000, also get their names submitted to MIT Lincoln Lab for asteroids (or minor planets) to be named after them.

Zhao Ye and Weichao's project was about using sunlight to change the chemical structure of a very small particles of matter, known as nano-materials.

"We are in the school's Astronomy Club and wanted to combine the telescope system with our project," Zhao Ye said.

They previously used laser light to induce changes in these small particles until they hit on a brainwave to use a

telescope to focus sunlight on them.

They found that they could change the structure of the tiny materials more effectively using sunlight.

Their project has applications for solar cells and gas sensors.

For example, sensitive gas sensors could be developed from these nano-materials.

The pair also won the Sigma Xi special award – a cash prize of \$400 – for their creative inter-disciplinary use of engineering and chemistry.

◆ *Zhai Weichao  
(below, left)  
with teammate  
Zhao Ye.*

Picture:  
NUS HIGH SCHOOL

