



Turkish professor invents smart molecules performing math

Engin Umut Akkaya, a professor at Ankara's Bilkent University, has invented smart molecules that are able to perform mathematical operations. Speaking to the Anatolia news agency on Thursday, Akkaya, affiliated with the university's department of chemistry, said many researchers have been carrying out studies involving molecules and electrical circuits around the world. He noted that following many years of research he managed to develop molecules that are able to

perform some basic mathematical processes.

"We developed these smart molecules after designing molecules. We used zinc and cadmium ions to make the smart molecules. We believe the design of the molecules is very good and that it has made a tremendous impact around the world. In fact, the Journal of the American Chemical Society devoted its cover page to our study," Akkaya said.

Noting that only seven articles on studies carried out in Turkey have been reported on in

the magazine, which has been around for 132 years, Akkaya said five of the seven articles were on studies conducted by his team.

The Scientific and Technological Research Council of Turkey (TÜBİTAK) awarded Akkaya its Science Award in 2009, the highest honor given by TÜBİTAK every year.

Stating that smart molecules are currently only able to perform addition and subtraction, Akkaya said they will further develop these mol-

ecules to tackle various complex mathematical operations in the years to come.

Akkaya's contribution to the world of technology has brought building small-sized molecular computers one step closer to reality. Speaking on the future of smart molecules, Akkaya said: "It was hard to believe that it was possible to carry out research with regards to molecules. However, it is obvious that it is possible now that researchers and scientists have synthesized smart molecules." **Istanbul Today's Zaman**