

Fast-charging batteries out within 2 years

Nanyang Technological University (NTU) scientists have developed a battery that can be charged up to 70 per cent in just two minutes.

Laboratory tests showed the advanced lithium-ion battery can also be re-charged 10,000 times, which means it can last more than 20 years, compared to conventional rechargeable batteries that last two to three years.

Associate Professor Chen Xiaodong from NTU's School of Materials Science and Engineering said the new battery impacts a wide range of industries, particularly in the field of electric vehicles.

"Electric cars will be able to increase their range dramatically, with just five minutes of charging, which is on a par with the time needed to pump petrol," he said, adding that the fast-charging batteries should hit the market within two years.

The scientists have licensed the technology to a multinational company for eventual production.

The battery replaces the traditional graphite used in one component with a new gel made from titanium dioxide. The dioxide material is found in soil and is commonly used as a food additive and in sunscreen lotions to absorb ultra-violet rays.