

Super Glue Invented



A type of dry glue based on the sticky limbs of geckos has been developed, far exceeding the capabilities of the gravity-defying lizards,

according to a study published Thursday.

The new adhesive is three times more powerful than previous gecko-inspired glues, and ten times more powerful than the geckos themselves, said researchers.

Scientists have long been intrigued by the incredible abilities of geckos, the small lizards that can scurry up walls and cling to ceilings by their toes, and have sought to unravel their secrets. It was discovered the lizards owe their amazing stickiness to microscopic elastic hairs in their toes, allowing them to support surprisingly heavy loads.

Researchers from four American laboratories worked on the puzzle, including the Air Force Research Laboratory near Dayton, Ohio, and found they could reproduce nature's Spiderman-like abilities with specially aligned carbon nanotubes that mimic the tiny hairs.

Soyuz Spacecraft Lifts Off



U.S. video game magnate Richard Garriott and an astronaut blasted off into space aboard a Russian Soyuz TMA-13 spacecraft from the Baikonur Cosmodrome on

the Kazakh steppes just after 13:00 (10:01 Greek time) on Sunday. Mr Garriott paid US\$35 million to fly into space alongside U.S. astronaut Michael Fincke and Russian cosmonaut Yury Lonchakov and will spend 10 days in space.

Health

Music Increases Physical Endurance

Brunel University's School of Sport and Education has revealed that carefully selected music can significantly increase a person's physical endurance and make the experience of cardiovascular exercise far more positive. This is the outcome of a study carried out by Dr Costas Karageorghis.

The study, which is to be published in the American magazine *Journal of Sport and Exercise Psychology*, refers to the considerable benefits associated with exercising in time to music: something that some elite athletes, such as marathon world record holder Haile Gebrselassie, have been doing for years. The findings show that when carefully selected according to scientific principles, music can enhance endurance by 15% and improve the 'feeling states' of exercisers, helping them to derive much greater pleasure from the task. One significant new finding is that music can help exercisers to feel more positive even when they are working out at a very high intensity – close to physical exhaustion.

The scientific principles that guided this piece of research are about to be put into action through an ambitious and exciting sporting event due to take place on 5th October in Greenwich, London. The Sony Ericsson Run To The Beat half-marathon will be the first to provide scientifically-selected live musical accompaniment along the entire length of the course. Dr Karageorghis has selected and coordinated the music that will be played at 17 live music stations to accompany 12,500 runners.



New online tool helps separated parents work out care for kids

Child Support Agency (CSA) customers are making good use of a new online tool that helps them calculate the percentage of time that they provide care for their children.

General Manager of the CSA, Matt Miller, said this is the first time the CSA has made a tool like this available to separated parents and service providers.

"Separated parents are logging into the estimator at the rate of around 220 per day," Mr Miller said.

"Under the new child support scheme the cost of parents meeting the care of children is taken into account in child support assessments.

"The Care Estimator helps anyone working out parenting plans for separated parents including lawyers,

counsellors and community service providers.

"Combined with the CSA's online Child Support Estimator and Family Tax Benefit Estimator, it can help parents see the impact that changes in care arrangements can have on their child support payments."

Parents simply select the nights that they have care of their child in the online calendar and the care estimator calculates the care percentage for the following twelve month period.

Customers can access the CSA's estimator tools at www.csa.gov.au by clicking on the link in the box on the home page or searching for 'care estimator', 'child support estimator' or 'Family Tax Benefit estimator'.

The ISES-AP-08 Conference will offer a wide range of the best international solar and renewable energy researchers, industry personnel and funding bodies. This will create an excellent forum for formal discussion of new research and developments at oral and poster sessions and also an informal networking environment for exchange of ideas and fostering of collaborations

We would like to invite you to attend the Asia Pacific Regional International Solar Energy Society Conference 2008.

This is one conference you cannot afford to miss!

PLENARY KEYNOTE SPEAKERS:

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|---|--|---|
|  | Professor Martin Green,
University of New South Wales |  |
| | Mr Greg Bourne,
WWF Australia | |
|  | Professor Ma Shenghong,
Chinese Academy of Sciences |  |
| | Professor Phillip Jones,
Cardiff University | |
|  | Dr Hubert Fechner,
Arsenal Research |  |
| | Dr Stephen Schuck,
BioEnergy Australia | |
|  | Professor Andeas Athenities,
Concordia University |  |
| | Professor Deo Prasad,
Chair of Conference | |
|  | Professor David Mills, Chairman of Ausra | |

OPENING SESSION SPEAKER:

- | | | |
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|  | Senator Christine Milne,
The Australian Greens |  |
| | Associate Professor Monica
Oliphant, ISES President | |
| | Professor Surendra Shrestha, UNEP |  |
| | Mr Artur Zawadski,
ANZSES National Chair | |

THE CONFERENCE TOPICS WILL INCLUDE:

- Photovoltaics
- Solar thermal sustainable buildings and design
- Financial risks and opportunities in the renewable energy sector
- Grid connection and integration
- Emerging renewable energies
- Wind
- Biomass
- Energy efficiency
- Developing countries
- Policy issues including local government initiatives

