

CREATION MOMENTS

Proclaiming Evidence for Truth

THIS WEEK'S CREATION MOMENT

Gecko Physics



Read Hebrews 3:4

For 75 years, scientists have been trying to figure out how the gecko can walk across a ceiling. Scientists ruled out suction or glue. Then it was thought that perhaps the tiny hairs on its feet were able to grasp microscopic imperfections in the surface on which it walks. However, the gecko can not only walk across a polished glass ceiling, it can even hang by just one toe.

Geckos have tiny hairs on their feet called setae. From these tiny hairs grow even tinier hairs called spatulae. These spatulae are so tiny that there are about a billion of them on each foot. Researchers have found that these tiniest hairs are so small that they contact the molecules of a surface so closely that they actually use the very forces that hold the molecules together! Scientists have tested the strength of these forces, called van der Waals forces, for the first time. They found that these forces are much more powerful than first thought.

As the gecko walks across a surface, it unrolls its toes, bringing the spatulae into contact with the surface. Then it gives a tiny tug that aligns the spatulae parallel to the surface, increasing their hold by 10 times. As the gecko lifts its foot for the next step, it levers the spatulae off the surface, breaking the bond. Based on this research on the gecko's trick, scientists are working to develop glues based on the same principle.

While geckos and chance evolution know nothing about van der Waals bonds, the Creator Who made the gecko and the van der Waals bonds has left His signature in this unique and elegant design.

Prayer: Lord, help me to bear witness to Your wisdom and love. Amen.

Notes: Ref: *Science News*, 7/15/00, p. 47, "Gecko toes tap intermolecular bonds."

© 2012, Creation Moments. Churches and parents may freely copy these bulletin inserts.

CREATION MOMENTS, INC.

P. O. Box 839 • Foley, MN 56329 • 800-422-4253

To receive our free Today's Creation Moment e-mail, visit www.creationmoments.com.

CREATION MOMENTS

Proclaiming Evidence for Truth

THIS WEEK'S CREATION MOMENT

Gecko Physics



Read Hebrews 3:4

For 75 years, scientists have been trying to figure out how the gecko can walk across a ceiling. Scientists ruled out suction or glue. Then it was thought that perhaps the tiny hairs on its feet were able to grasp microscopic imperfections in the surface on which it walks. However, the gecko can not only walk across a polished glass ceiling, it can even hang by just one toe.

Geckos have tiny hairs on their feet called setae. From these tiny hairs grow even tinier hairs called spatulae. These spatulae are so tiny that there are about a billion of them on each foot. Researchers have found that these tiniest hairs are so small that they contact the molecules of a surface so closely that they actually use the very forces that hold the molecules together! Scientists have tested the strength of these forces, called van der Waals forces, for the first time. They found that these forces are much more powerful than first thought.

As the gecko walks across a surface, it unrolls its toes, bringing the spatulae into contact with the surface. Then it gives a tiny tug that aligns the spatulae parallel to the surface, increasing their hold by 10 times. As the gecko lifts its foot for the next step, it levers the spatulae off the surface, breaking the bond. Based on this research on the gecko's trick, scientists are working to develop glues based on the same principle.

While geckos and chance evolution know nothing about van der Waals bonds, the Creator Who made the gecko and the van der Waals bonds has left His signature in this unique and elegant design.

Prayer: Lord, help me to bear witness to Your wisdom and love. Amen.

Notes: Ref: *Science News*, 7/15/00, p. 47, "Gecko toes tap intermolecular bonds."

© 2012, Creation Moments. Churches and parents may freely copy these bulletin inserts.

CREATION MOMENTS, INC.

P. O. Box 839 • Foley, MN 56329 • 800-422-4253

To receive our free Today's Creation Moment e-mail, visit www.creationmoments.com.