



The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book

Peter Forbes

Download now

Click here if your download doesn"t start automatically

The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book

Peter Forbes

The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book Peter Forbes

A cutting-edge science book in the style of 'Fermat's Last Theorem' and 'Chaos' from an exciting and accessible voice in popular science writing.

Bio-inspiration is a form of engineering but not in the conventional sense. Extending beyond our established and preconceived notions, scientists, architects and engineers are looking at imitating nature by manufacturing 'wet' materials such as spider silk or the surface of the gecko's foot.

The amazing power of the gecko's foot has long been known – it can climb a vertical glass wall and even walk upside down on the ceiling – but no ideas could be harnessed from it because its mechanism could not be seen with the power of optical microscopes. Recently however the secret was solved by a team of scientists in Oregon who established that the mechanism really is dry, and that it does not involve suction, capillary action or anything else the lay person might imagine. Each foot has half a million bristles and each bristle ramifies into hundreds of finer spatula-shaped projections. The fine scale of the gecko's foot is beyond the capacity of conventional microengineering, but a team of nanotechnologists have already made a good initial approximation.

The gecko's foot is just one of many examples of this new 'smart' science. We also discover, amongst other things, how George de Mestral's brush with the spiny fruits of the cocklebur inspired him to invent Velcro; how the shape of leaves opening from a bud has inspired the design of solar-powered satellites; and the parallels between cantilever bridges and the spines of large mammals such as the bison.

The new 'smart' science of Bio-inspiration is going to produce a plethora of products over the next decades that will transform our lives, and force us to look at the world in a completely new way. It is science we will be reading about in our papers very soon; it is the science of tomorrow's world.



Read Online The Gecko's Foot: How Scientists are Taking a Le ...pdf

Download and Read Free Online The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book Peter Forbes

From reader reviews:

Michael Rodiguez:

This The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book usually are reliable for you who want to be described as a successful person, why. The reason of this The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book can be one of the great books you must have is usually giving you more than just simple studying food but feed an individual with information that might be will shock your before knowledge. This book is handy, you can bring it all over the place and whenever your conditions at e-book and printed kinds. Beside that this The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book giving you an enormous of experience like rich vocabulary, giving you tryout of critical thinking that we realize it useful in your day task. So, let's have it and enjoy reading.

Camille Wolfe:

Reading can called mind hangout, why? Because when you find yourself reading a book especially book entitled The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book the mind will drift away trough every dimension, wandering in every single aspect that maybe unknown for but surely will become your mind friends. Imaging each and every word written in a book then become one contact form conclusion and explanation in which maybe you never get ahead of. The The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book giving you another experience more than blown away the mind but also giving you useful information for your better life on this era. So now let us demonstrate the relaxing pattern is your body and mind will be pleased when you are finished examining it, like winning an activity. Do you want to try this extraordinary shelling out spare time activity?

Mary Kasten:

Beside this kind of The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book in your phone, it can give you a way to get closer to the new knowledge or data. The information and the knowledge you will got here is fresh through the oven so don't become worry if you feel like an outdated people live in narrow small town. It is good thing to have The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book because this book offers to you readable information. Do you oftentimes have book but you do not get what it's about. Oh come on, that will not end up to happen if you have this with your hand. The Enjoyable set up here cannot be questionable, such as treasuring beautiful island. Techniques you still want to miss that? Find this book and also read it from right now!

Dennis Bales:

As we know that book is important thing to add our know-how for everything. By a reserve we can know everything we want. A book is a range of written, printed, illustrated or perhaps blank sheet. Every year had been exactly added. This publication The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book was filled concerning science. Spend your free time to add your knowledge about your science

competence. Some people has distinct feel when they reading a book. If you know how big benefit from a book, you can sense enjoy to read a guide. In the modern era like today, many ways to get book that you simply wanted.

Download and Read Online The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book Peter Forbes #R1EXPN32T8Z

Read The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes for online ebook

The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes books to read online.

Online The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes ebook PDF download

The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes Doc

The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes Mobipocket

The Gecko's Foot: How Scientists are Taking a Leaf from Nature's Book by Peter Forbes EPub