

Insects Amazing Source of Biomimetics and Bioinspiration

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Biomimetics and bioinspiration, is the mimicry or inspiration of living things and natural phenomena to design and build devices and planning of processes that can reduce or delete the damages and hazards that humans may cause to nature due to the use of certain technologies and industrial phenomena. Among animals, insects as a large group with a widespread distribution throughout the world is the most important models for scientists because of their body structure characteristics and amazing behaviors. Successful mimicry of these unique microstructures' models helps solving many problems. There is a huge amount of information in these small biological models. Insect modeling is generally summarized based on seven basic biomimetics areas :(1) Material science and technology, (2) Surfaces science, (3) Science of adhesives, (4) Optics, (5) Photonics, (6) Sensorics and (7) Robotics for different applications. However, mimicry and inspiration for these phenomena of creation are not limited and new knowledge shall discover every day. This article reviews sources of biomimetics and bioinspiration from insects.

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