

MICROSCOPE IMAGES IN YOUR WORLD



The head of a mosquito



The stinger of a mosquito

Microscopes are most commonly associated with magnifying some or other biological samples. Infact about 60% of microscope work is done on some type of biological specimen.

With Scanning Electron Microscopes the technique allows us to see the surface of the sample at very high magnifications, good resolution and even in three dimensions. So many samples such as some kind of bug, insect or small animal, is well suited for viewing in a SEM.

An example of this is the research into solving the massive problem of Malaria. South Africa has always been plagued by malaria. Research on this infection has been ongoing for many a year now with only limited success as most medication is too expensive for local rural communities.

As malaria is biological in nature, it continues to change form regularly. So the best method of combating it, is to look at ways of reducing the numbers of mosquitoes in the country.

This requires a very good understanding of the morphology of the mosquito. One method of studying it's morphology is by preparing a dead mosquito in a special way, coating it with a thin layer of gold, to protect it from the electron beam, and then placing it in the SEM to look at it up close.

Once researchers fully understand the mosquito, it this then a matter of developing the right chemicals to exterminate it without killing off all sorts of other insects in the area.



This information is brought to you by the Microscopy Society of Southern Africa in the interest of furthering research, awareness and development of microscopy in the region.

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