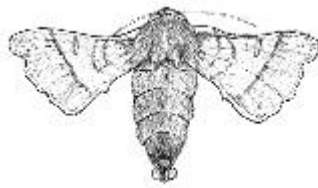


Emitters and Receptors

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The chemical which the female silkmoth (*Bombyx*) produces to attract male silkmoths was identified in 1960. This chemical is called bombycol. A small amount of bombycol was taken from a group of female silkmoths and the following experiment was carried out.



A female silkmoth was placed in a transparent, air-tight box. The box was placed on a table. On the same table was placed a dish containing a piece of filter paper. The filter paper had been soaked in bombycol.

When a male silkmoth was released into the room he ignored the female silkmoth and attempted to mate with the filter paper!

Answer the following questions

(a) Explain why the male silkmoth ignored the female silkmoth.

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<p>(b) Which of the senses are not used by the male silkmoth to find the female silkmoth? Give reasons for your answer, using the results of the experiment.</p>	
<p>(c) Why was the male silkmoth more attracted to the filter paper?</p>	
<p>(d) Which parts of the male silkmoth are receptive to bombycol?</p>	