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IDENTIFICATION OF A TRIGLYCERIDE (GLYCERYL-1,2-DIOLEATE-3-PALMITATE) AS A BROOD PHEROMONE OF THE HONEY BEE (*APIS MELLIFERA* L.)

Identifizierung eines Tri-Glycerids (Glyceryl-1, 2-dioleat-3-palmitat) als Brutpheromon der Honigbiene (*Apis mellifera* L.)

Identification d'un triglycéride (glyceryl-1, 2-dioléate-3-palmitate) comme phéromone de couvain de l'abeille (*Apis mellifica* L.)

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Honey bees care for their brood in a very complete way. At low ambient temperatures they incubate the pupae and regulate the temperature at 35 °C. The question how bees recognize the brood is still unsolved. When two semi-artificial queencells consisting out of natural silk cocoons were offered to a group of 500 hive bees they regularily make a choice and intergrate only one of the two cells into their cluster.

The biological active fraction was extracted from drone pupae with diethylether, purified by HPLC and analyzed by masspectrometry, ^{1}H-NMR and IR-spectroscopy. Based on these results Glyceryl-1, 2-dioleate-3-palmitate was identified as the main component of this fraction. Synthesized substance (7 µg) offered on a test cocoon released the clustering of the bees around it. Experiments on other substances and a more detailed discussion will be published elsewhere.