

Materials List for:

# Methods for Comparing Nutrients in Beebread Made by Africanized and European Honey Bees and the Effects on Hemolymph Protein Titters

Gloria Degrandi-Hoffman<sup>1</sup>, Bruce Eckholm<sup>2</sup>, Ming Huang<sup>3</sup>

<sup>1</sup>Carl Hayden Bee Research Center, USDA-ARS

<sup>2</sup>Coupeville, WA, USA

<sup>3</sup>Ecotoxicology Division, Eurofins Agroscience Services, Inc.

Correspondence to: Gloria Degrandi-Hoffman at [gloria.hoffman@ars.usda.gov](mailto:gloria.hoffman@ars.usda.gov)

URL: <https://www.jove.com/video/52448>

DOI: [doi:10.3791/52448](https://doi.org/10.3791/52448)

## Materials

Name	Company	Catalog Number	Comments
waterproof double junction pH spear	Thermo Fisher		
Coffee Grinder	Mr. Coffee	model 1DS77	
Dulbecco's phosphate buffer solution	Emd-millipore	BSS-1005-B	
EIA/RIA polystyrene plate	Sigma-Aldrich-Corning	CLS3590-100EA	
microcapillary pipets	Kimble Glass Inc.		
Quick Start Bradford Protein Assay Kit 2	Bio-Rad	#500-0202	
Spectrophotometer	Biotek Synergy HT		
Mass Selective Detector	Agilent	5973N	
HLB cartridge			
gas chromatograph	Agilent	6930	
gas chromatography column	A J&W Scientific	DB-1701	
d <sub>4</sub> -alanine	Sigma-Aldrich	488917	
d <sub>23</sub> -lauric acid	Sigma-Aldrich	451401	
<sup>13</sup> C <sub>6</sub> -glucose	Sigma-Aldrich	389374	
Pyridine	Sigma-Aldrich	270970	
N,O-Bis (trimethylsilyl)trifluoroacetamide +			
Trimethylchlorosilane (BSTFA + TMCS)	Sigma-Aldrich	33148	
Perfluorotributylamine (PFTBA)	Sigma-Aldrich	442747-U	
<sup>d39</sup> -arachidic acid	Cambridge Isotope		