

Supplementary material

Discrimination of Diptera order insects based on their saturated cuticular hydrocarbon content using a new microextraction procedure and chromatographic analysis

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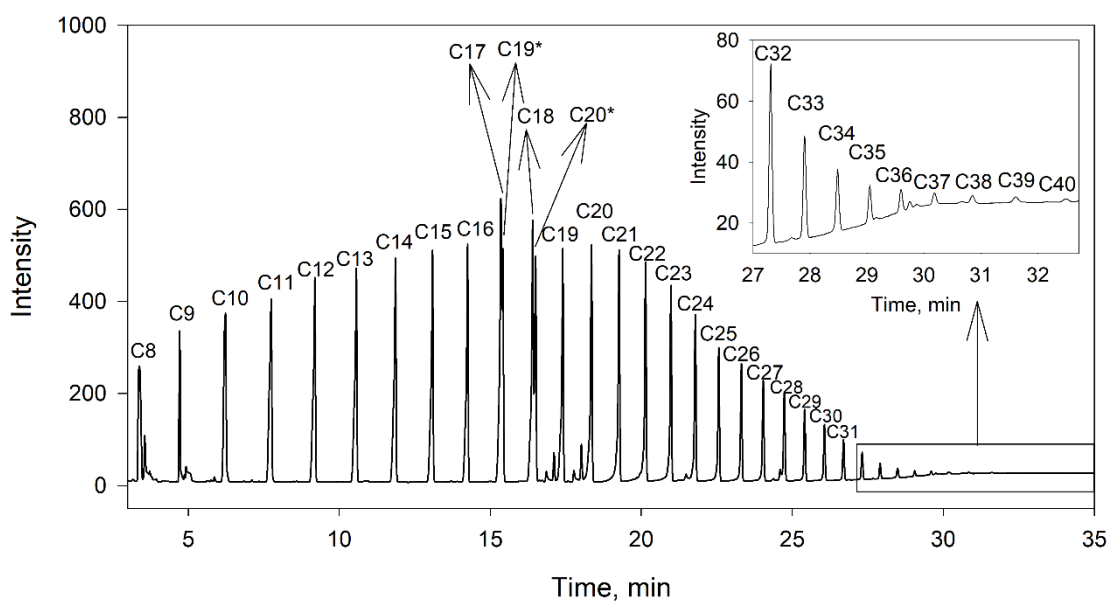


Fig. S1 Chromatogram obtained by DLLME with GC-FID for a standard solution at $1 \mu\text{g mL}^{-1}$.

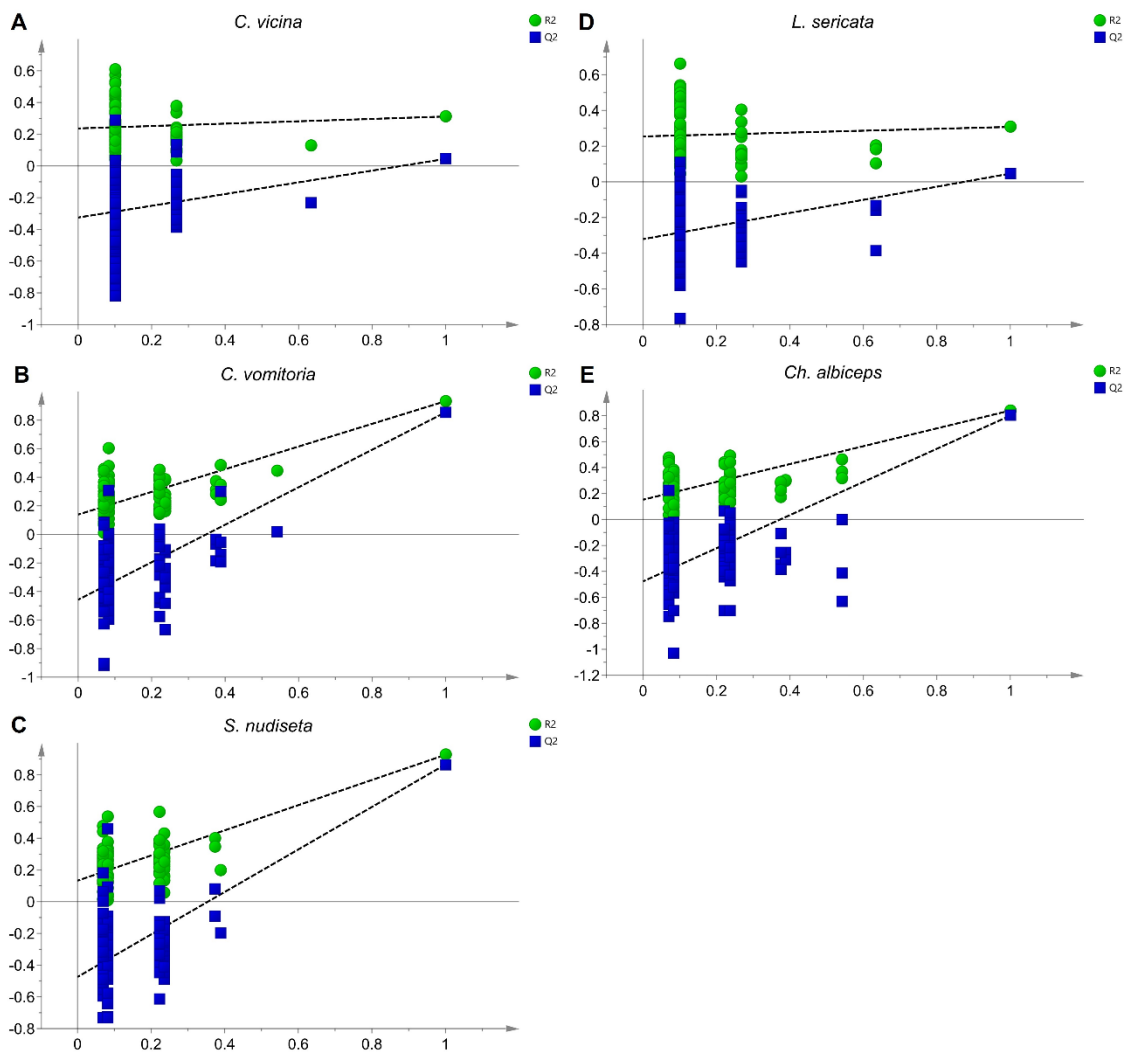


Fig. S2 Permutation plot for the optimal OPLS-DA model using 100 random permutations.

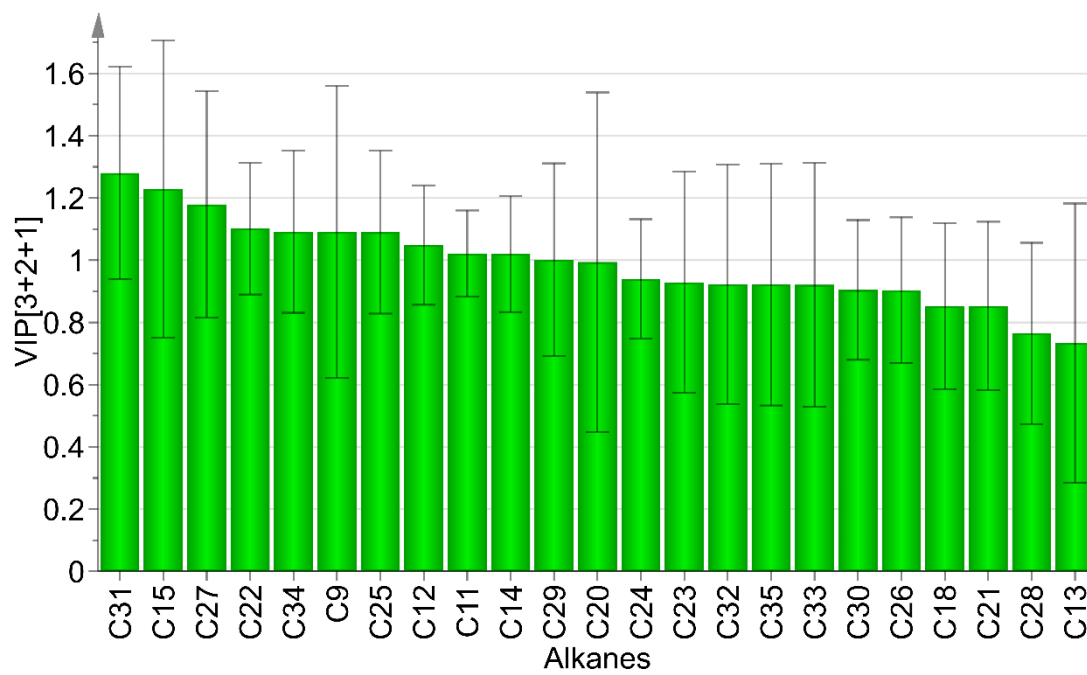


Fig. S3 The VIP score plot of the OPLS-DA model.

Table S1 Validation parameters for DLLME with GC-FID analysis of the n-alkanes

Analyte	Linearity, ng mL ⁻¹	RSD ^a , %			Analyte	Linearity, ng mL ⁻¹	RSD ^a , %		
		300 ng mL ⁻¹	800 ng mL ⁻¹	1200 ng mL ⁻¹			300 ng mL ⁻¹	800 ng mL ⁻¹	1200 ng mL ⁻¹
C8	2-2500	4.1	3.8	3.9	C24	2-2500	2.8	2.0	2.4
C9	2-2500	3.3	3.1	3.0	C25	2-2500	2.6	2.2	2.1
C10	1.5-2500	2.6	1.9	1.1	C26	2.5-2500	3.7	3.4	3.5
C11	1.5-2500	1.6	1.5	1.2	C27	2.5-2500	2.1	2.3	2.6
C12	1.5-2500	2.3	2.0	1.9	C28	5-2500	2.5	2.6	2.4
C13	1.5-2500	2.6	2.1	2.0	C29	5-2500	2.8	2.5	2.5
C14	1.5-2500	3.5	2.1	2.9	C30	10-2500	2.2	2.1	2.0
C15	1.5-2500	2.8	1.9	2.0	C31	10-2500	2.0	2.4	2.5
C16	1.5-2500	1.9	1.9	2.1	C32	20-2500	4.8	4.6	5.1
C17	1-2500	3.9	3.1	2.9	C33	20-2500	5.7	6.0	5.5
C19*	2-2500	4.9	5.3	5.0	C34	50-2500	8.6	8.3	8.8
C18	1.5-2500	2.2	2.3	2.5	C35	50-1500	8.3	9.1	9.5
C20*	2-2500	3.1	3.8	3.5	C36	100-1500	9.6	9.8	9.9
C19	1.5-2500	1.9	1.8	2.2	C37	100-1500	10.0	10.2	10.6
C20	1.5-2500	1.8	2.0	1.5	C38	150-1500	10.9	11.5	11.7
C21	1.5-2500	2.2	1.7	1.9	C39	150-1500	11.3	11.0	11.5
C22	1.5-2500	2.0	1.8	1.8	C40	250-1500	12.9	13.5	13.4
C23	2-2500	2.0	2.0	2.6					

^an = 12. *Branched.