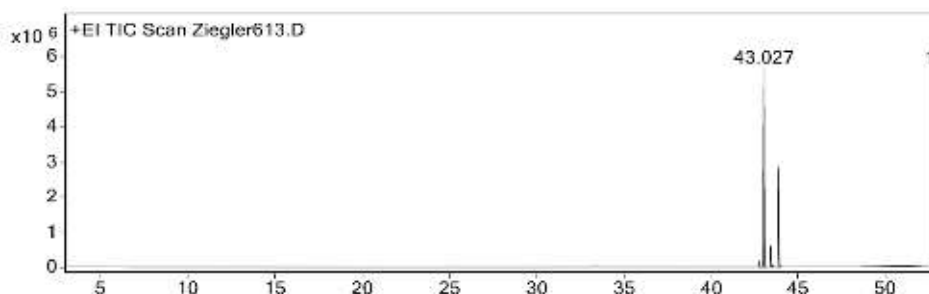




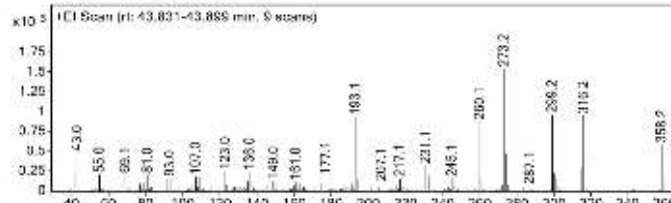
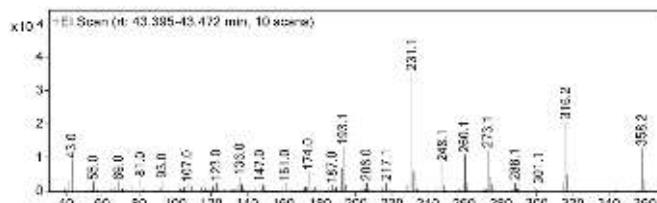
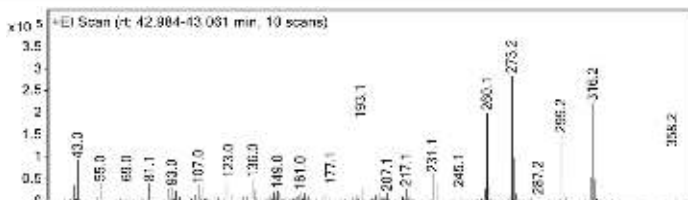
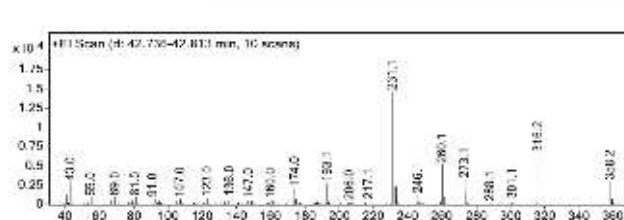
CERTIFICATE OF ANALYSIS

SAMPLE ORIGIN: Sample from Kannastar, Pruszkow, Poland
IDENTITY: C₂₃H₃₄O₃, HHC Acetate, MW 358.52 g/mol
IUPAC NAME: Major isomer: (6aR,9R/S,10aR)-6,6,9-Trimethyl-3-pentyl-6a,7,8,9,10,10a-hexahydro-6H-benzo[c]chromen-1-yl acetate (HHC Acetate, no CAS number available)
 Minor isomer: Cis/trans-5-isopropyl-2-methyl-9-pentyl-3,4,5,6-tetrahydro-2H-2,6-methanobenzo[b]oxocin-7-yl acetate (iso-HHC Acetate, no CAS number available)
APPEARANCE: 1 g of viscous, clear, pale yellow oil / mixture of isomers and diastereomers
ANALYSIS: According to GC/MS and GC-FID analysis the analyzed material consists of the following constituents:
Total HHC Acetate >99.5%
Major Isomer 63.0% (9R)-HHC Acetate Minor Isomer 6.0% trans-iso-HHC Acetate
 29.3% (9S)-HHC Acetate 1.5% cis-iso-HHC Acetate



Integration Peak List

Peak	Start	RT	End	Height	Area	AreaSumPercent
1	42.713	42.771	42.847	160705.45	443560.74	1.56
2	42.936	43.027	43.189	5666246.41	17891289.05	63.07
3	43.36	43.429	43.523	601719.33	1699810.33	5.99
4	43.788	43.865	44.01	2844196.33	8334094.64	29.38



HEAVY METALS (acc. DIN 13432 and EC 1881/2006):
 the sample meets the concentration limits (ppm) for the following metals: Zn (150), Cu (50), Ni (25), Cd (<0,2), Pb (<0.8), Hg (0,5), Cr (50), Mo (1,0), Se (0,75), As (5). No Pd could be detected

Tuebingen, June 7, 2022

Thomas Ziegler