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APPENDIX

APPENDIX

The release of essential oil from essential oil-encapsulated nanospheres in fabric softener

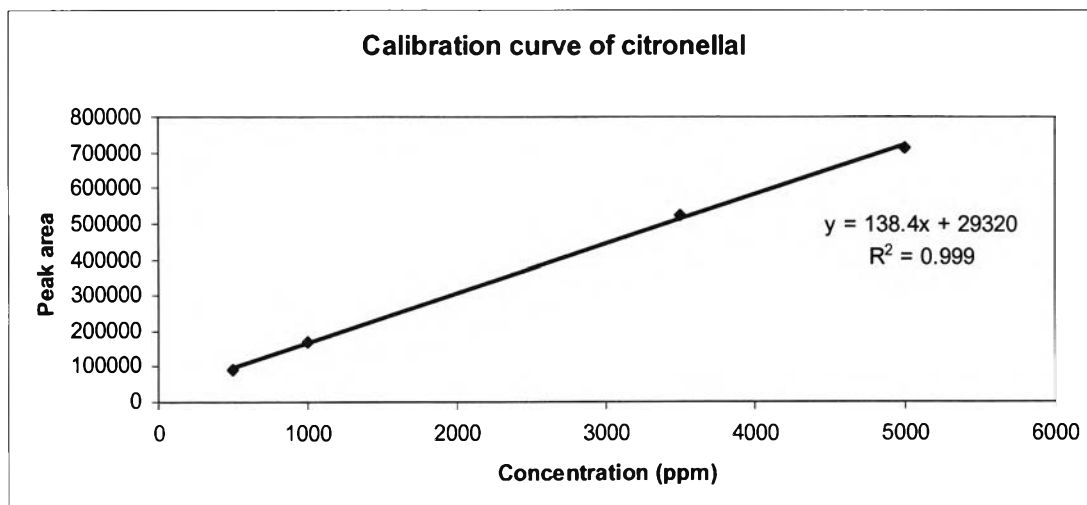


Figure A1 Calibration curve of Citronellal

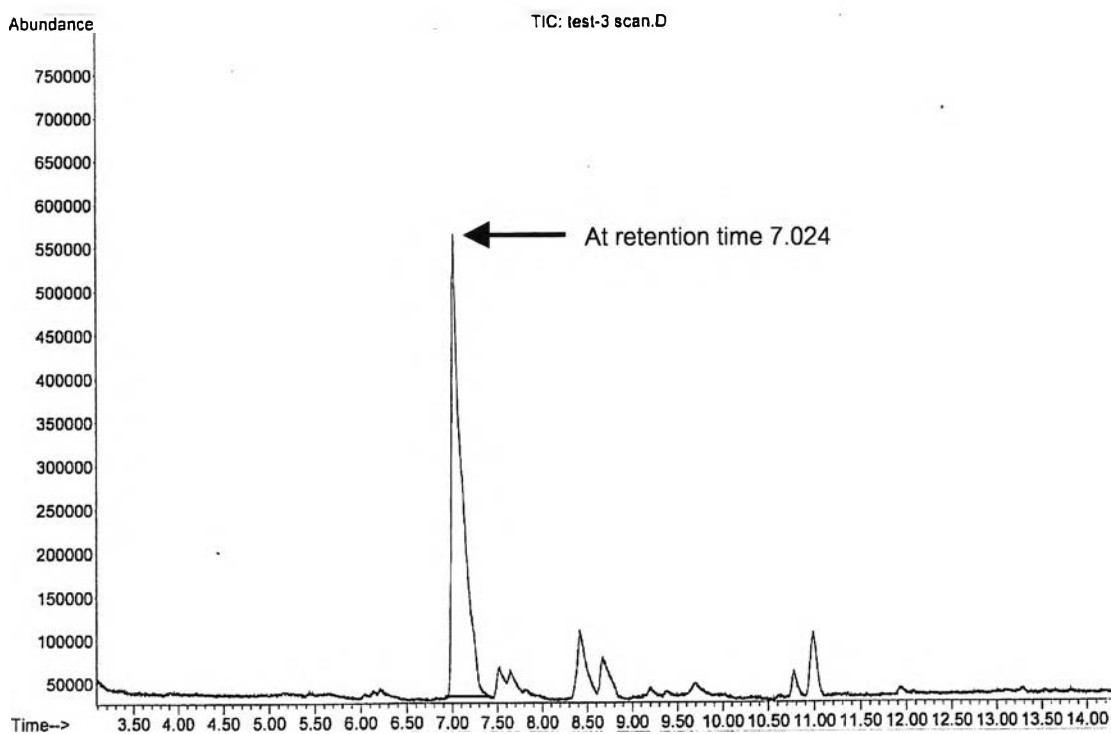


Figure A2 Retention time and area of citronellal was loaded in cut cotton.

From the equation of calibration curve;

$$Y = 138.4X + 29320, R^2 = 0.999 \text{ -----(1)}$$

The amount of citronellal was loaded in cut cotton calculated by equation (1);

$$181111 = 138.4X + 29320$$

$$X = 1096.8$$

ppm \longrightarrow mg/ 1000 ml \therefore 1096.8 ppm = 1096.8 mg/ 1000 ml

Product volumetric 1 ml gave content of citronellal 1.0968 mg

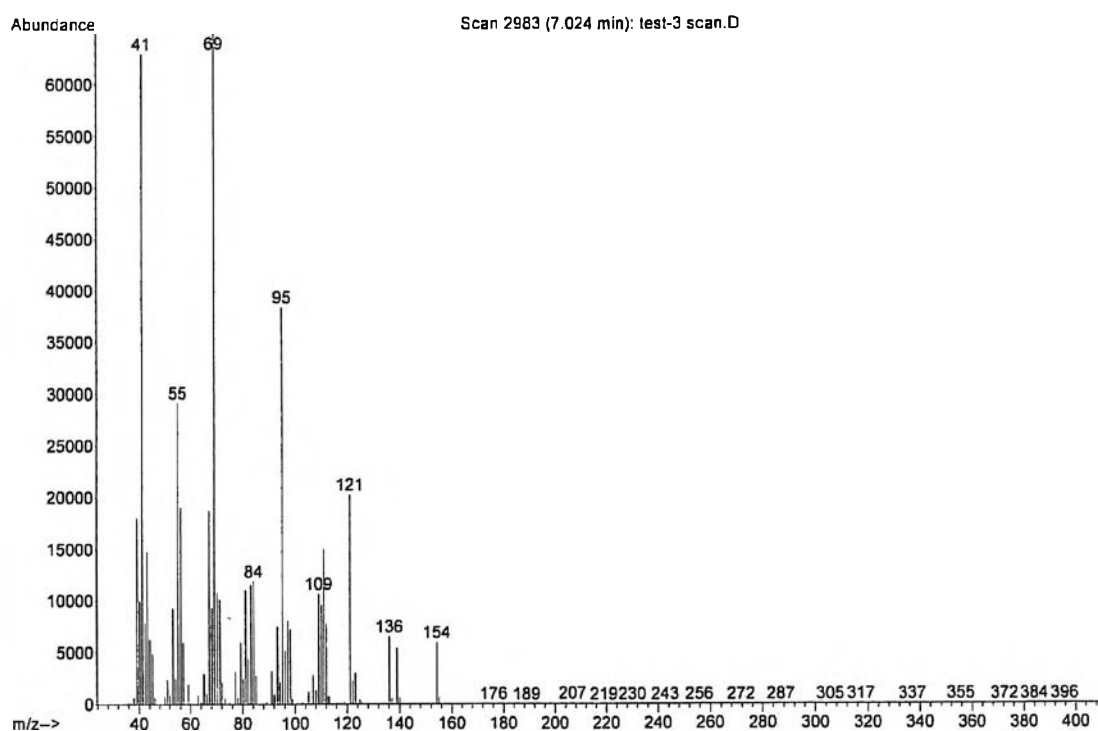


Figure A3: Mass spectrum of citronellal

VITA

Ms. Orapan Tatipanitthep was born on July 27, 1983 in Bangkok, Thailand. She obtained a Bachelor's Degree of Science (Chemistry) from Srinakarinwirot University in 2005. After that, Miss Tatipanitthep has worked as a Lab analyst with IDS Manufacturing Company Limited. At the same time she also started her master study in the Program of Petrochemistry and Polymer Science at Chulalongkorn University. During her study Miss Orapan contributed academically to the second National Conference on Science and Technology (NCST 2009) via a research presentation entitled "Compatibility between essential oil nanoencapsules and various surfactants"

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