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Research article

Catalytic Non-Thermal Plasma Reactor for the Decomposition of *p*-Xylene Over MnO_x and CoO_x Supported on Anodized Aluminum Oxide

M.S.P. Sudhakaran[a], J. Karuppiah[a], E. Linga Reddy[b], M. Sanjeeva Gandhi[a], Quang Hung Trinh[a], Young Sun Mok[a,*]

[a]*Department of Chemical and Biological Engineering, Jeju National University, Jeju 690-756, South Korea*

[b]*Department of Chemical Engineering, Kyungpook National University, Daegu 702-701, South Korea*

**Corresponding author: Dr. Young Sun Mok, Department of Chemical and Biological Engineering, Jeju National University, Jeju 690-756, South Korea, Fax: +82-64-7553670; Tel: +82-64-7543682; Email: smokie@jejunu.ac.kr*

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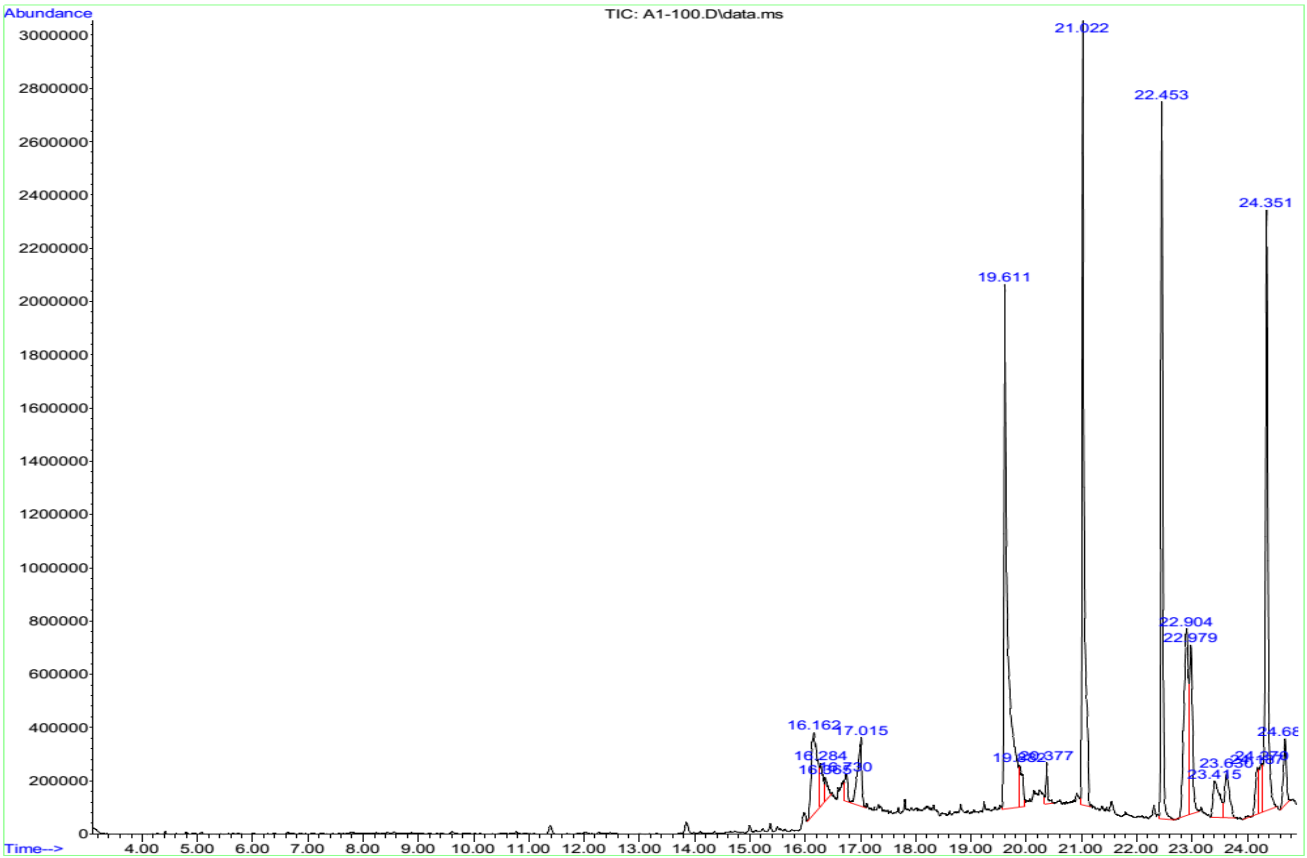


Chromatogram

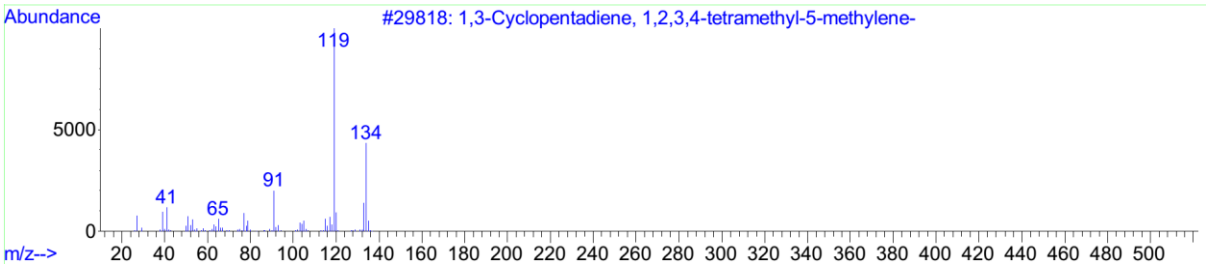
Table S1

RT	Compound name	NIST library match Probability (%)
16.728	1,3-Cyclopentadiene	90
16.728	1,4-diethylBenzene	55
16.728	1,2,3,5-tetramethylBenzene	55
17.014	4-methyl benzoic acid	96
19.354	9-Octadecenoic acid	99
19.858	Octadecanoic acid	99
20.09	bis-4,4'-(1-methylethylidene) Phenol	95
20.379	2,3-dimethyl-4-nitrophenol	87
20.379	2,5-dimethyl-4-nirtrophenol	80
20.379	1-nitro-4-methoxy-2-methyl-Benzene	74
22.902	n-hexadecanoic acid	98
22.902	Tetradecanoic acid	97

The chromatogram and mass spectrums of GC/MS analysis for the identification of p-xylene partial oxidized organic products are given in the supporting information. The Wiley 7N library database is used to identify all the compounds. The compounds were fitted with database values higher than 55-99 % the probability (Table S1).

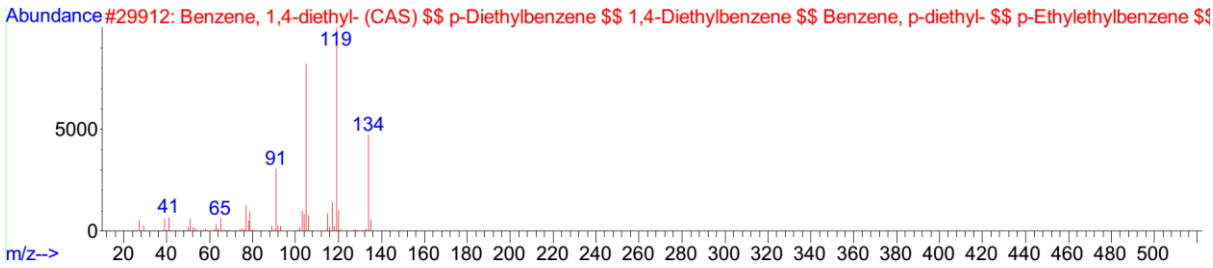
Mass Spectrum

Peak RT-16.728 Ref no: 29818



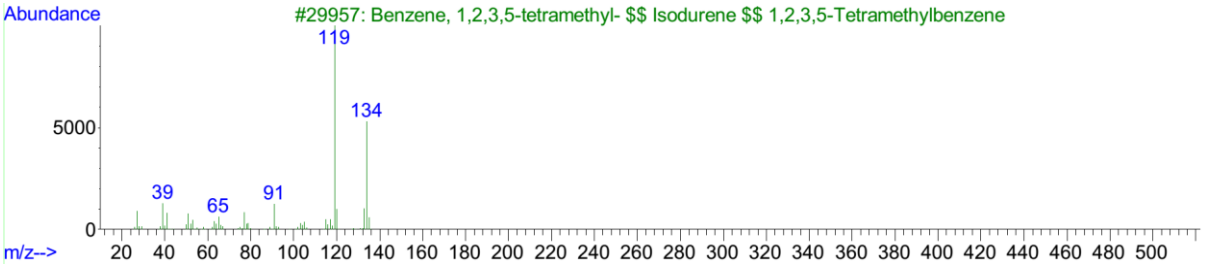
1,3-Cyclopentadiene

Peak RT-16.728 Ref no: 29912



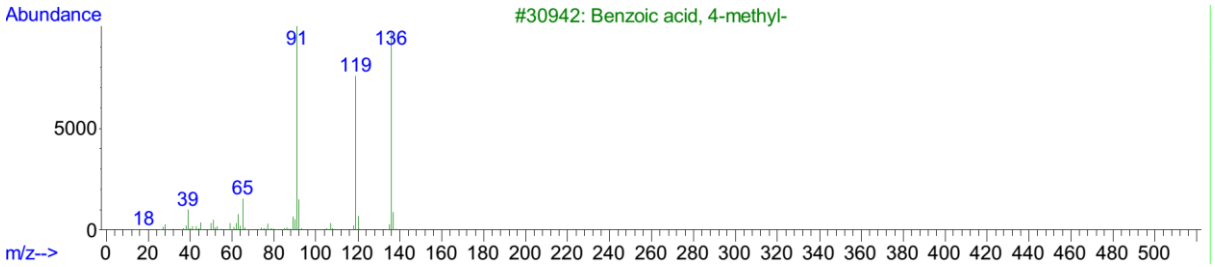
1,4-diethylBenzene

Peak RT-16.728 Ref no: 29957



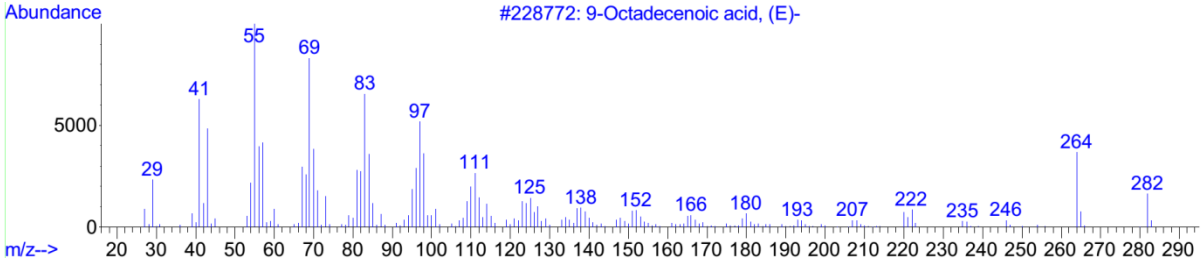
1,2,3,5-tetramethylBenzene

Peak RT-17.014 Ref No.30942



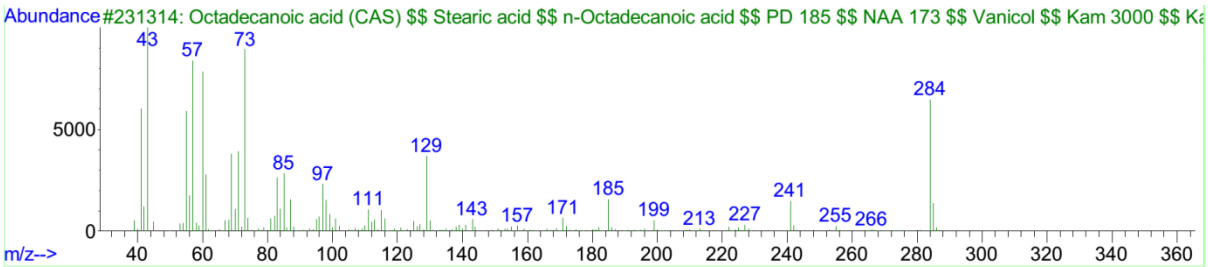
4-methyl benzoic acid

Peak RT-19.354 Ref no. 228772



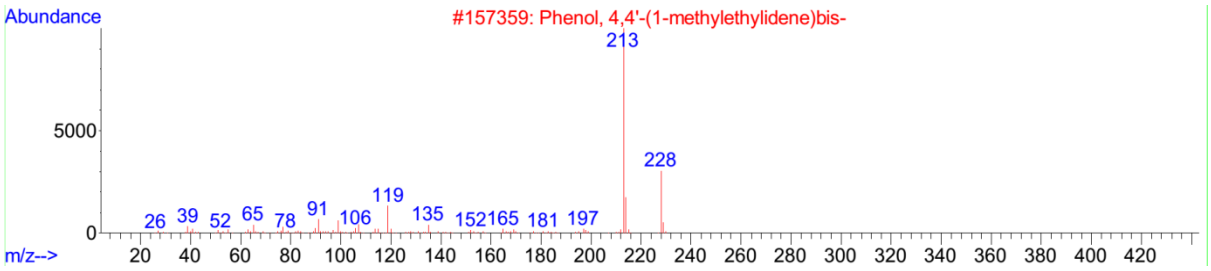
9-Octadecenoic acid

Peak RT-19.858 Ref no. 231314



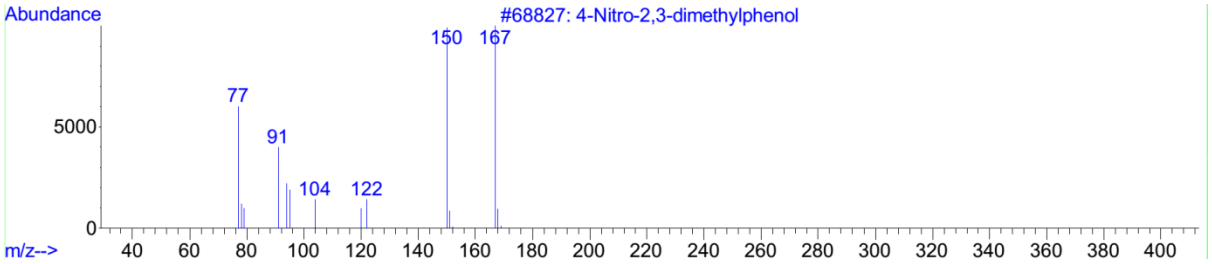
Octadecenoic acid

Peak RT-20.098 Ref no. 157359



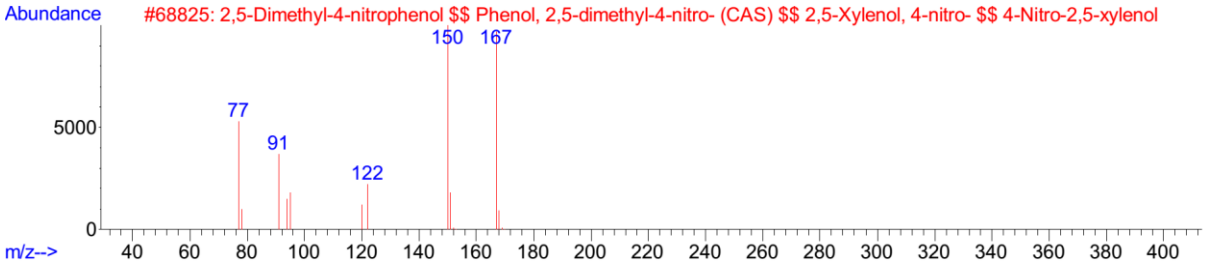
bis-4,4'-(1-methylethylidene) Phenol

Peak RT-20.379 Ref no. 68827



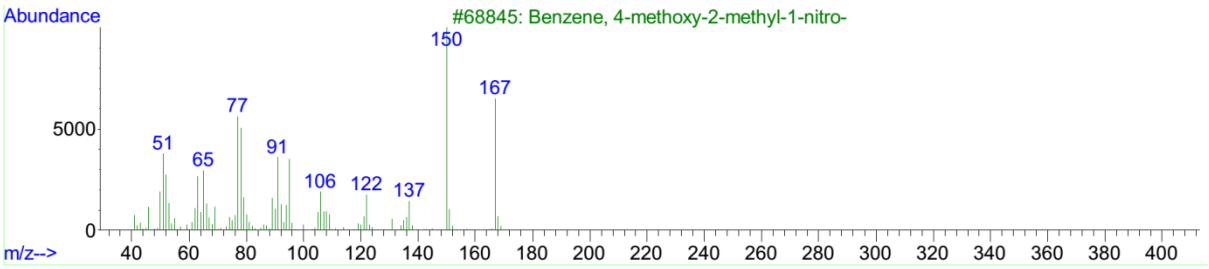
2,3-dimethyl-4-nitrophenol

Peak RT-20.379 Ref no. 68825



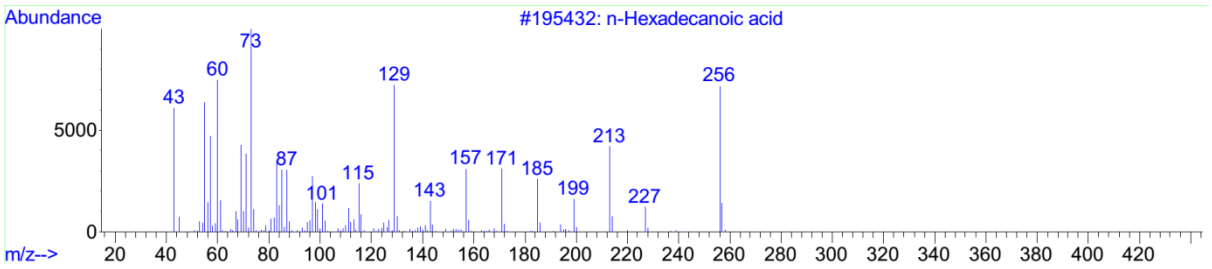
2,5-dimethyl-4-nirtrophenol

Peak RT-20.379 Ref no. 68845

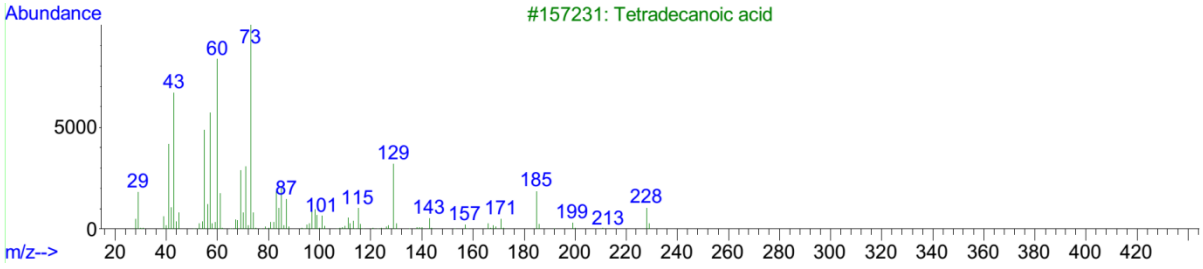


1-nitro-4-methoxy-2-methyl-Benzene

Peak RT-22.902 Ref no.195432 and 157231



n-hexadecanoic acid



Tetradecanoic acid