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# GC-MS analysis of petroleum ether extract of *Alysicarpus monilifer*-whole plant

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**ABSTRACT**

*Alysicarpus monilifer L. (DC.) belonging to the family of Fabacea, which is a turf forming legume and native to Africa and Asia. In India it is distributed throughout the plains- Madras, Jammu, Bombay, Punjab, Gujarat- except Kutch and Bulsar, Madhya Pradesh and Uttar Pradesh. Alysicarpus monilifer considered to be as an significant folklore medicine for the various ailments. A very less scientific studies have been conducted on its medicinal, pharmacological and ethano botanical aspects of this plants. The current study was carried out to analyze the active phytoconstituents present in the petroleum ether extract of whole plant of Alysicarpus monilifer. Totally eighty four constituents was identified in the gas chromatography with mass spectroscopic analysis of petroleum ether extract of whole plant of Alysicarpus monilifer.*

**Keywords:** *Alysicarpus monilifer;* Petroleum ether; Gas chromatography; Phytol; Tetracycline, Stearic acid.

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## INTRODUCTION

**Botanical Description**
Scientific Name: *Alysicarpus monilifer* (L.) DC.
Synonyms: Hedysarum moniliferum L.
Family: Fabaceae
Sub family: Faboideae
Tribe: Desmodieae
Sub tribe: Desmodiinae

*Alysicarpus monilifer* is a low growing much branched annual or perennial herb, 5-15 (-50) cm tall. Leaves simple; ovate, elliptical or lanceolate, cordate at the base, 2.5-7.5 cm long, prominently nerved, glabrous or sparsely pubescent beneath. Racemes spicate, axillary and terminal, 1-15 cm long; flowers lax in dense along racemes. Pods distinctly moniliform, 3-5 jointed, 1-2 cm long, calyx not longer than first joint; glabrous or sparsely pubescent; articles 2.5-3 mm long and 2-3 mm wide, with a smooth to reticulate surface sculpture[1].

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*Alysicarpus monilifer* L. (DC.) (Fabacea), commonly known as Samervo (Gujarati) or Juhi ghas (Hindi), is a turf forming legume and native to Africa and Asia. In India it is distributed throughout the plains- Madras, Jammu, Bombay, Punjab, Gujarat- except Kutch and Bulsar, Madhya Pradesh and Uttar Pradesh. It is a prostrate, procumbent or decumbent perennial herb; stem of which is around 12- 60cm long, woody at the base. It is a branched; branches are terete clothed with covering trichomes. The herb is up to 50cm in length and hairy when young.

This plant is used traditionally in anti-inflammatory and in stomach ache. An antidote to snake bite. It is also used in skin diseases and as a diuretic. The leaves are used in fever and jaundice[2]. This is an attempt to determine the

phytochemical compounds present in the Petroleum ether extract of *Alysicarpus monilifer* by Gas Chromatography and Mass Spectroscopy (GC-MS) technique.

## MATERIALS AND METHODS

### (i) Collection and Identification of plant material

The aerial parts of Alysicarpus monilifer were collected from authentic dealers from Tirunelveli, Tamilnadu. The identification of the plant materials was confirmed by consulting the Research officer- Botany (Scientiest-C), Central Council for Research in Ayurveda & Siddha, Govt. Of India (Retired), Tirunelveli, Tamilnadu. The whole plant of Alysicarpus monilifer were dried under shade, segregated, pulverized by a mechanical grinder and passed through a 40 mesh sieve.

### (ii) Preparation of extract

The collected plant material was dried (30±2ºC) for 14 days, ground and sieved to get fine powder from which the extracts were prepared by subjecting to the successive extraction, by using a hot continuous percolation method in Soxhlet apparatus[3] with petroleum ether (60-80$^{o}$C). The powdered whole plant was extracted with petroleum ether (1L). After complete extraction (18 hrs), the solvent was removed by distillation under reduced pressure. The resulting extract was dried using a water bath to get semisolid.

### (iii) Gas Chromatography (GC-MS) analysis

The GC-MS was performed by using Thermo GC- Trace Ultra Ver: 5.0, Thermo MS DSQ II. ZB 5- MS capillary standard Non-Polar column was used. Dimension 30Mts, ID: 0.25mm, Film: 0.25 µm. Carrier gas: He, Flow: 1.0 ML/Min. Temp Prog: Oven temp 70 C raised to 260 C AT 6 C/MIN. Injection volume: 1 micro liter.

### (iv) Identification of compounds

Interpretation mass spectrum of GC-MS was conducted using the database of National Institute Standard and Techniques (NIST) which consist of more than 62,000 patterns. The relative percentage amount of each component was calculated by comparing its average peak area to the total areas. The spectrum of the unknown component was compared with the spectrum of the known component inherent in the NIST library. The name, molecular weight and structure of the components of the test materials were ascertained.

## RESULTS AND DISCUSSION

GC-MS chromatogram of the petroleum ether extract of whole plant of *Alysicarpus monilifer* (Fig.1) clearly showed the presence of 21 compounds. GC-MS chromatogram of the petroleum ether extract of whole plant of *Alysicarpus monilifer* (**Fig.1**) clearly shows 21 peaks indicating the presence of 21 phytochemical compounds. The identification of the phytochemical compounds was based on the peak area, retention time and molecular formula. The table 1 shows the compound name with its probality, molecular weight, molecular formula, run time and % area. The results reveal the presence of 1-Methoxy-3-pentene, 5-Nonanone, 3-Methylbut-3-en-2-ol, 2-Propenoic acid, 6-chlorohex-2-en-1-ol, 1,3-Propanediamine N,N-dimethyl-, 2,6-Dideutero-pyridine, 1S-(-)-N-(Cyclohex-2-en-1-yl)hydroxylamine, benzene-1,3,5-D3, (Z)-2-Cyano-2-butene, 4-d1-3-Cyclohexen-1-ol, 2-Vinylpent-3-en-1-ol, Fenchone, 1-Phenylethyl N,N-diisopropylcarbamate, 3-Pentanone, 2-methyl-4-phenyl, benzene, (1,2,2-trimethyl-3-butenyl)-, 5-[R-1-Phenethylsulfanylmethylene]-2,2-dimethyl-1,3-dioxane-4,6-dione, N-BZ-2aminocinnamate, 1-(à-Methylbenzyl)-2-(methoxymethyl)-aziridine, 4-Cyclopropylcarbonyloxytridecane, 2,2,3,3-Tetraethyloxirane, Butane, 1,2-dichloro-2-methyl-, Dodecane, 1-chloro-, dimethyldiphenyltethylidyl pyrrolidine, 1,3,5-Triazine-2,4(1H,3H)-dione, 6-(methylamino)-, Benzeneacetic acid, 4-tetradecyl ester, Octadecane, 1-chloro-, Hexadecane, Acetic acid, 1=(1'-methylallenyl)-2-ethenylcyclohexane, à-ylangene, à-Guaiene, 2,7-dimethyl-3,6-dimethylene-1,7-octadiene, undecane, 7,7-dichlorobicyclo[3.2.0]hept-2-en-6-one, 10,12-Tricosadiynoic acid, methyl ester, 2-[9-(But-3-enyl)-1,4-dioxaspiro[4.5]dec-7-yl]acetaldehyde, N-Carbethoxy-7-azabicyclo[3.2.1]nonan-9-ol, 1-(4-Hydroxybutyl)-5-(ethoxyethoxymethyl)uracil, S-Methyl-3-(2-naphthyl)thiacyclobutenium Trifluoromethanesulfonate, 2-Methyl-5-nitrobiphenyl, Octadecane, 3,7,11,15-Tetramethyl-2-hexadecen-1-ol, Neophytadiene, Phytol, acetate, Hexadecanoic acid, methyl ester, Octadecanoic acid, methyl ester, Ethyl linoleate, 11,14-Eicosadienoic acid, methyl ester, Heptadecanoic acid, 15-methyl-, ethyl ester, Neophytadiene, Phytol, Isophytol, acetate, Methyl sandaracopimarate, 4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, Ethyl 6,9,12,15,18-heneicosapentaenoate, Kaur-16-en-18-oic acid, methyl ester, (4a), Docosane, 9-octyl, 3-Methyltricosane, Tetracosane, Heptacosane, Nonacosane, Pentacosane, Tricosane, Octacosane, Pentatriacontane, STEVIOL METHYL ESTER, 23-Hydroxy-2,16-dehydroretuline, 1-hydroxy-3-methoxy-2-(6'-methyl-tetrahy dropyran-2'-yl) anthraquinone, Variecolol, Taxamairin B, Docosanoic acid, methyl ester, Tetracycline, 1H-Benzo[3,4]cyclobuta[1,2-b]pyrrole, Stearic acid, 4',7-Dimethoxyflavone, 2-Hexene, 2,5-dimethyl, N'-Cyano-N,N-dimethyl-guanidine, 1 -ethyl-2-pyrrolidone, Ergosta-5,7,22-trien-27-ol, 3-methoxymethoxy, 6-(3-Methoxymethoxy-10,13-dimethyl-2,3,4,9,10,11,12,13,14,15,16,17-dodecahydro-1H-cyclopenta(a) phenanthren -17-yl)-(6-hydroxy-1,4,5-trimethylhex-2-enyl-1)-, 1,8,15,22-Tetraaza-

2,7,16,21-cyclooctacosanetetrone, Anthiaergosta-5,7,9-trien-3-one, Cholest-5-en-3-ol. The phytochemical compounds recognized through GC-MS analysis showed many biological activities are listed in **Table 1.**

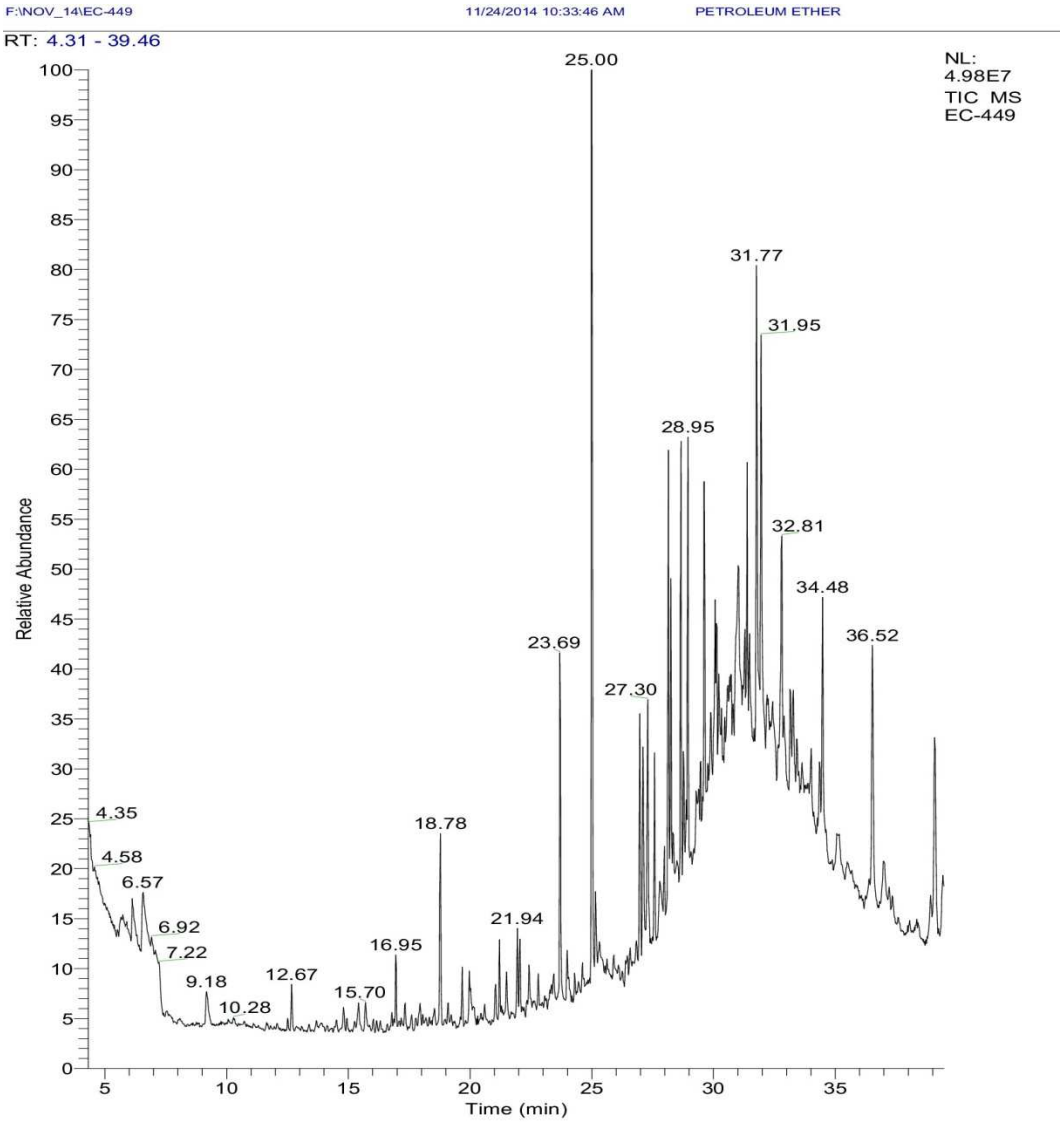


**Fig.1: The GC-MS chromatogram of petroleum ether extract of *Alysicarpus monilifer***

**Table 1. Phytochemical compounds identified in petroleum ether extract of *Alysicarpus monilifer***

| S.No | Compound Name | Biological Activity | Probability | Molecular formula | Molecular weight | Percentage area | Run time |
|---|---|---|---|---|---|---|---|
| 1 | 1-Methoxy-3-pentene | No activity reported | 47.43 | $C_6H_{12}O$ | 100 | 0.14 | 3.32 |
| 2 | 5-Nonanone | No activity reported | 8.89 | $C_9H_{18}O$ | 142 | 0.14 | 3.32 |
| 3 | 3-Methylbut-3-en-2-ol | No activity reported | 8.54 | $C_6H_{12}O$ | 100 | 0.14 | 3.32 |
| 4 | 2-Propenoic acid | Antioxidant activity[4], reducing the risk of stomach cancer[5] | 7.55 | $C_4H_6O_2$ | 86 | 0.14 | 3.32 |
| 5 | 6-chlorohex-2-en-1-ol | Antiseptic and Antibacterial activity[6] | 5.63 | $C_6H_{11}ClO$ | 134 | 0.14 | 3.32 |
| 6 | 1,3-Propanediamine, N,N-dimethyl- | Anticancer and Antibacterial activity[7] | 5.19 | $C_5H_{14}N_2$ | 102 | 0.14 | 3.32 |
| 7 | 2,6-Dideutero-pyridine | No acitivity reported | 49.50 | $C_5H_3D_2N$ | 79 | 97.22 | 3.80 |
| 8 | 1S-(-)-N-(Cyclohex-2-en-1-yl)hydroxylamine | No activity reported | 9.88 | $C_6H_{11}NO$ | 113 | 97.22 | 3.80 |
| 9 | BENZENE-1,3,5-D3 | Insecticide, Larvicide, Pesticide. | 9.88 | $C_6H_3D_3$ | 78 | 97.22 | 3.80 |
| 10 | (Z)-2-Cyano-2-butene | No activity reported | 6.18 | $C_5H_7N$ | 81 | 97.22 | 3.80 |
| 11 | 4-d1-3-Cyclohexen-1-ol | Antimicrobial and Antiseptic activities[8] | 4.24 | $C_6H_9DO$ | 98 | 97.22 | 3.80 |
| 12 | 2-Vinylpent-3-en-1-ol | No activity reported | 2.55 | $C_7H_{12}O$ | 112 | 97.22 | 3.80 |
| 13 | Fenchone | Anti alzheimeran, Anti-cholinesterase, Counterirritant, Secretolytic[9]. | 2.45 | $C_{10}H_{16}O$ | 152 | 97.22 | 3.80 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14 | 1-Phenylethyl N,N-diisopropylcarbamate | No activity reported | 6.26 | $C_{15}H_{23}NO_2$ | 249 | 0.02 | 5.74 |
| 15 | 3-Pentanone, 2-methyl-4-phenyl | No acitivity reported | 4.16 | $C_{12}H_{16}O$ | 176 | 0.02 | 5.74 |
| 16 | Benzene, (1,2,2-trimethyl-3-butenyl)- | No acitivity reported | 3.36 | $C_{13}H_{18}$ | 174 | 0.02 | 5.74 |
| 17 | 5-[R-1-Phenethylsulfanylmethylene]-2,2-dimethyl-1,3-dioxane-4,6-dione | No activity reported | 2.83 | $C_{15}H_{16}O_4S$ | 292 | 0.02 | 5.74 |
| 18 | N-BZ-2aminocinnamate | No activity reported | 2.72 | $C_{17}H_{17}NO_2$ | 267 | 0.02 | 5.74 |
| 19 | 1-(à-Methylbenzyl)-2-(methoxymethyl)-aziridine | No activity reported | 2.62 | $C_{12}H_{17}NO$ | 191 | 0.02 | 5.74 |
| 20 | 4-Cyclopropylcarbonyloxytridecane | No activity reported | 11.69 | $C_{17}H_{32}O_2$ | 268 | 0.13 | 6.59 |
| 21 | 2,2,3,3-Tetraethyloxirane | No activity reported | 9.88 | $C_{10}H_{20}O$ | 156 | 0.13 | 6.59 |
| 22 | Butane, 1,2-dichloro-2-methyl- | No activity reported | 7.17 | $C_5H_{10}Cl_2$ | 140 | 0.13 | 6.59 |
| 23 | Dodecane, 1-chloro- | No activity reported | 5.63 | $C_{12}H_{25}Cl$ | 204 | 0.13 | 6.59 |
| 24 | Dimethyldiphenyltethylidylpyrrolidine | No activity reported | 5.20 | $C_{20}H_{23}N$ | 277 | 0.13 | 6.59 |
| 25 | 1,3,5-Triazine-2,4(1H,3H)-dione, 6-(methylamino)- | No activity reported | 3.98 | $C_4H_6N_4O_2$ | 142 | 0.13 | 6.59 |
| 26 | Benzeneacetic acid, 4-tetradecyl ester | No activity reported | 3.52 | $C_{22}H_{36}O_2$ | 332 | 0.13 | 6.59 |
| 27 | Octadecane, 1-chloro- | No activity reported | 3.52 | $C_{18}H_{37}Cl$ | 288 | 0.13 | 6.59 |
| 28 | Hexadecane | No activity reported | 42.27 | $C_{16}H_{34}$ | 226 | 0.03 | 16.95 |
| 29 | Acetic acid | Acidulant, Antibacterial, Antiotitic, Antisalmonella, Antivaginitic, Expectorant, Fungicide, keratitigenic, Mucolytic, Osteolytic, Pesticide, Protisticide, Spermicide, Ulcerogenic, Verrucolytic[27] | 6.57 | $C_{16}H_{26}O_2$ | 250 | 0.05 | 18.78 |
| 30 | 1=(1'-methylallenyl)-2-ethenylcyclohexane | No activity reported | 5.80 | $C_{12}H_{18}$ | 162 | 0.05 | 18.78 |
| 31 | à-ylangene | No activity reported | 4.56 | $C_{15}H_{24}$ | 204 | 0.05 | 18.78 |
| 32 | à-Guaiene | No activity reported | 4.21 | $C_{15}H_{24}$ | 204 | 0.05 | 18.78 |
| 33 | 2,7-Dimethyl-3,6-dimethylene-1,7-octadiene | No activity reported | 3.88 | $C_{12}H_{18}$ | 162 | 0.05 | 18.78 |
| 34 | Undecane | No activity reported | 3.73 | $C_{15}H_{24}O$ | 220 | 0.05 | 18.78 |
| 35 | 7,7-dichlorobicyclo[3.2.0]hept-2-en-6-one | No activity reported | 3.29 | $C_{15}H_{24}O$ | 220 | 0.05 | 18.78 |
| 36 | 10,12-Tricosadiynoic acid, methyl ester | No activity reported | 2.52 | $C_{24}H_{40}O_2$ | 360 | 0.05 | 18.78 |
| 37 | 2-[9-(But-3-enyl)-1,4-dioxaspiro[4.5]dec-7-yl]acetaldehyde | No activity reported | 47.14 | $C_{14}H_{22}O_3$ | 238 | 0.02 | 20.01 |
| 38 | N-Carbethoxy-7-azabicyclo[3.2.1]nonan-9-ol | No activity reported | 10.22 | $C_{11}H_{19}NO_3$ | 213 | 0.02 | 20.01 |
| 39 | 1-(4-Hydroxybutyl)-5-(ethoxyethoxymethyl)uracil | No activity reported | 9.03 | $C_{13}H_{22}N_2O_5$ | 286 | 0.02 | 20.01 |
| 40 | S-Methyl-3-(2-naphthyl)thiacyclobutenium Trifluoromethanesulfonate | No activity reported | 6.55 | $C_{15}H_{13}F_3O_3S_2$ | 362 | 0.02 | 20.01 |
| 41 | 2-Methyl-5-nitrobiphenyl | No activity reported | 4.36 | $C_{13}H_{11}NO_2$ | 213 | 0.02 | 20.01 |
| 42 | Octadecane | No activity reported | 19.12 | $C_{18}H_{38}$ | 254 | 0.03 | 21.21 |
| 43 | 3,7,11,15-Tetramethyl-2-hexadecen-1-ol | No activity reported | 17.45 | $C_{20}H_{40}O$ | 296 | 0.03 | 21.96 |
| 44 | Neophytadiene | antipyretic, analgesic, and anti-inflammatory, antimicrobial, antioxidant[10] | 9.52 | $C_{20}H_{38}$ | 278 | 0.03 | 21.96 |
| 45 | Phytol, acetate | Cancer preventive, Antinociceptive and antioxidant activity[11], Anticolvulcent effect[12] | 2.31 | $C_{22}H_{42}O_2$ | 338 | 0.03 | 21.96 |
| 46 | Hexadecanoic acid, methyl ester | anti inflammatory properties[13], Antioxidant, Hypocholesterolemic, Nematicide, Pesticide, Lubricant, Antiandrogenic, Flavor, Hemolytic[30] | 86.09 | $C_{18}H_{36}O_2$ | 284 | 0.22 | 23.69 |
| 47 | Octadecanoic acid, methyl ester | Anticholesterol[14] | 79.52 | $C_{19}H_{38}O_2$ | 298 | 0.03 | 27.58 |
| 48 | Ethyl linoleate | No activity reported | 5.44 | $C_{20}H_{36}O_2$ | 308 | 0.18 | 28.17 |
| 49 | 11,14-Eicosadienoic acid, methyl ester | No activity reported | 5.23 | $C_{21}H_{38}O_2$ | 322 | 0.18 | 28.17 |
| 50 | Heptadecanoic acid, 15-methyl-, ethyl ester | Antioxidant[25] | 9.24 | $C_{20}H_{40}O_2$ | 312 | 0.09 | 28.67 |
| 51 | Neophytadiene | antipyretic, analgesic, and anti-inflammatory, antimicrobial, antioxidant[22] | 10.83 | $C_{20}H_{38}$ | 278 | 0.09 | 28.95 |
| 52 | Phytol | Antimicrobial, Anticancer, Cancer preventive, Diuretic Antiinflammatory[30] | 14.51 | $C_{20}H_{40}O$ | 296 | 0.09 | 28.95 |
| 53 | Isophytol, acetate | Ran Tao, Cheng-Zhang Wang and Zhen-Wu Kong[23] | 1.49 | $C_{22}H_{42}O_2$ | 338 | 0.09 | 28.95 |
| 54 | Methyl sandaracopimarate | No activity reported | 78.69 | $C_{21}H_{32}O_2$ | 316 | 0.08 | 29.62 |
| 55 | 4,7,10,13,16,19-Docosahexaenoic acid, methyl ester | Inhibit growth of human colon carcinoma cells[26] | 4.32 | $C_{23}H_{34}O_2$ | 342 | 0.10 | 30.09 |
| 56 | Ethyl 6,9,12,15,18-heneicosapentaenoate | No activity reported | 3.81 | $C_{23}H_{36}O_2$ | 344 | 0.10 | 30.09 |
| 57 | Kaur-16-en-18-oic acid, methyl ester, (4a) | No activity reported | 5.95 | $C_{21}H_{32}O_2$ | 316 | 0.10 | 30.09 |
| 58 | Docosane, 9-octyl | No activity reported | 31.37 | $C_{30}H_{62}$ | 422 | 0.19 | 31.01 |
| 59 | 3-Methyltricosane | No activity reported | 8.45 | $C_{24}H_{50}$ | 338 | 0.19 | 31.01 |
| 60 | Tetracosane | Cytotoxic activity[28] | 12.13 | $C_{24}H_{50}$ | 338 | 0.12 | 31.39 |
| 61 | Heptacosane | Antibacterial[29] | 7.59 | $C_{27}H_{56}$ | 380 | 0.12 | 31.39 |
| 62 | Nonacosane | Antibacterial[29] | 7.00 | $C_{29}H_{60}$ | 408 | 0.12 | 31.39 |
| 63 | Pentacosane | Antibacterial[29] | 6.46 | $C_{25}H_{52}$ | 352 | 0.12 | 31.39 |
| 64 | Tricosane | Antibacterial[29] | 6.21 | $C_{23}H_{48}$ | 324 | 0.12 | 31.39 |
| 65 | Octacosane | Anti-inflammatory,anti-bacterial, anti-ulcergenic[21] | 6.21 | $C_{28}H_{58}$ | 394 | 0.12 | 31.39 |
| 66 | Pentatriacontane | Herbistat[20] | 5.49 | $C_{35}H_{72}$ | 492 | 0.12 | 31.39 |
| 67 | Steviol methyl ester | Sweetener[18], Treatment of polycystic kidney disease[19] | 4.96 | $C_{21}H_{32}O_3$ | 332 | 0.30 | 31.77 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 68 | 23-Hydroxy-2,16-dehydroretuline | No activity reported | 26.27 | $C_{21}H_{24}N_2O_3$ | 352 | 0.10 | 32.79 |
| 69 | 1-Hydroxy-3-methoxy-2-(6'-methyl-tetrahy dropyran-2'-yl) anthraquinone | Digester additive in paper maker[17] | 13.60 | $C_{21}H_{20}O_5$ | 352 | 0.10 | 32.79 |
| 70 | Variecolol | No activity reported | 8.78 | $C_{25}H_{38}O_2$ | 370 | 0.10 | 32.79 |
| 71 | Taxamairin B | No activity reported | 7.79 | $C_{22}H_{24}O_4$ | 352 | 0.10 | 32.79 |
| 72 | Docosanoic acid, methyl ester | No activity reported | 54.19 | $C_{23}H_{46}O2$ | 354 | 0.06 | 33.26 |
| 73 | Tetracycline | Antibiotic[16] | 9.86 | $C_{22}H_{24}N_2O_8$ | 444 | 0.04 | 33.99 |
| 74 | 1H-Benzo[3,4]cyclobuta[1,2-b]pyrrole | No activity reported | 4.99 | $C_{14}H_{13}Cl_4N$ | 335 | 0.04 | 33.99 |
| 75 | Stearic acid | Lowering plasma cholesterol levels[24] | 4.60 | $C_{39}H_{78}O_3$ | 594 | 0.04 | 33.99 |
| 76 | 4',7-Dimethoxyflavone | No activity reported | 10.48 | $C_{17}H_{14}O_4$ | 282 | 0.03 | 35.12 |
| 77 | 2-Hexene, 2,5-dimethyl | No activity reported | 8.85 | $C_8H_{16}$ | 112 | 0.03 | 35.12 |
| 78 | N'-Cyano-N,N-dimethyl-guanidine | No activity reported | 4.30 | $C_4H_8N_4$ | 112 | 0.03 | 35.12 |
| 79 | 1 -ethyl-2-pyrrolidone | No activity reported | 3.63 | $C_{15}H_{18}Cl_2N_2O_4$ | 360 | 0.03 | 35.12 |
| 80 | Ergosta-5,7,22-trien-27-ol, 3-methoxymethoxy | No activity reported | 9.79 | $C_{30}H_{48}O_3$ | 456 | 0.05 | 37.01 |
| 81 | 6-(3-Methoxymethoxy-10,13-dimethyl-2,3,4,9,10,11,12,13,14,15,16,17-dodecahydro-1H-cyclopenta(a) phenanthren -17-yl)-(6-hydroxy-1,4,5-trimethylhex-2-enyl-1)- | No activity reported | 9.41 | $C_{30}H_{48}O_3$ | 456 | 0.05 | 37.01 |
| 82 | 1,8,15,22-Tetraaza-2,7,16,21-cyclooctacosanetetrone | No activity reported | 6.45 | $C_{24}H_{44}N_4O_4$ | 452 | 0.05 | 37.01 |
| 83 | Anthiaergosta-5,7,9-trien-3-one | No activity reported | 5.07 | $C_{28}H_{42}O$ | 394 | 0.05 | 37.01 |
| 84 | Cholest-5-en-3-ol | It serves as a precursor for the biosynthesis of steroid hormones, bile acids, and vitamin D[15] | 39.07 | $C_{27}H_{46}O$ | 386 | 0.08 | 39.57 |

## CONCLUSION

In the present study, Eighty four phytochemical compounds have been identified from the petroleum ether extract of whole plant of *Alysicarpus monilifer* by Gas Chromatography- Mass Spectrometry (GC-MS) analysis. Isolation of individual phytochemical constituents and subjecting it to biological activities are being undertaken.

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