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Appendices

HIMEDIA, Nutrient Broth Base (NB) M002

Composition**

Ingredients	gram/litre
HM peptone B	1.5
Yeast extract	1.5
Peptone	5
Sodium chloride	5
pH at 25°C	7.4±0.2

** formula adjusted, standardized to suit performance parameters

HIMEDIA, Muller Hinton Agar (MHA) M173

Composition**

Ingredients	gram/litre
HM infusion B	300
Acicase	17.5
Starch	1.5
Agar	17
pH at 25°C	7.3±0.1

** formula adjusted, standardized to suit performance parameters

HIMEDIA, Muller Hinton Broth Base (MHB) LQ182V

Composition**

Ingredients	gram/litre
HM infusion B	300
Acicase	17.5
Starch	1.5
pH at 25°C	7.2±0.1

** formula adjusted, standardized to suit performance parameters

HIMEDIA, Luria Bertani Broth, Miller (Miller Luria Bertani Broth) M1245

Composition**

Ingredients	gram/litre
Tryptone	10
Yeast extract	5
Sodium chloride	10
pH at 25°C	7.5±0.2

** formula adjusted, standardized to suit performance parameters

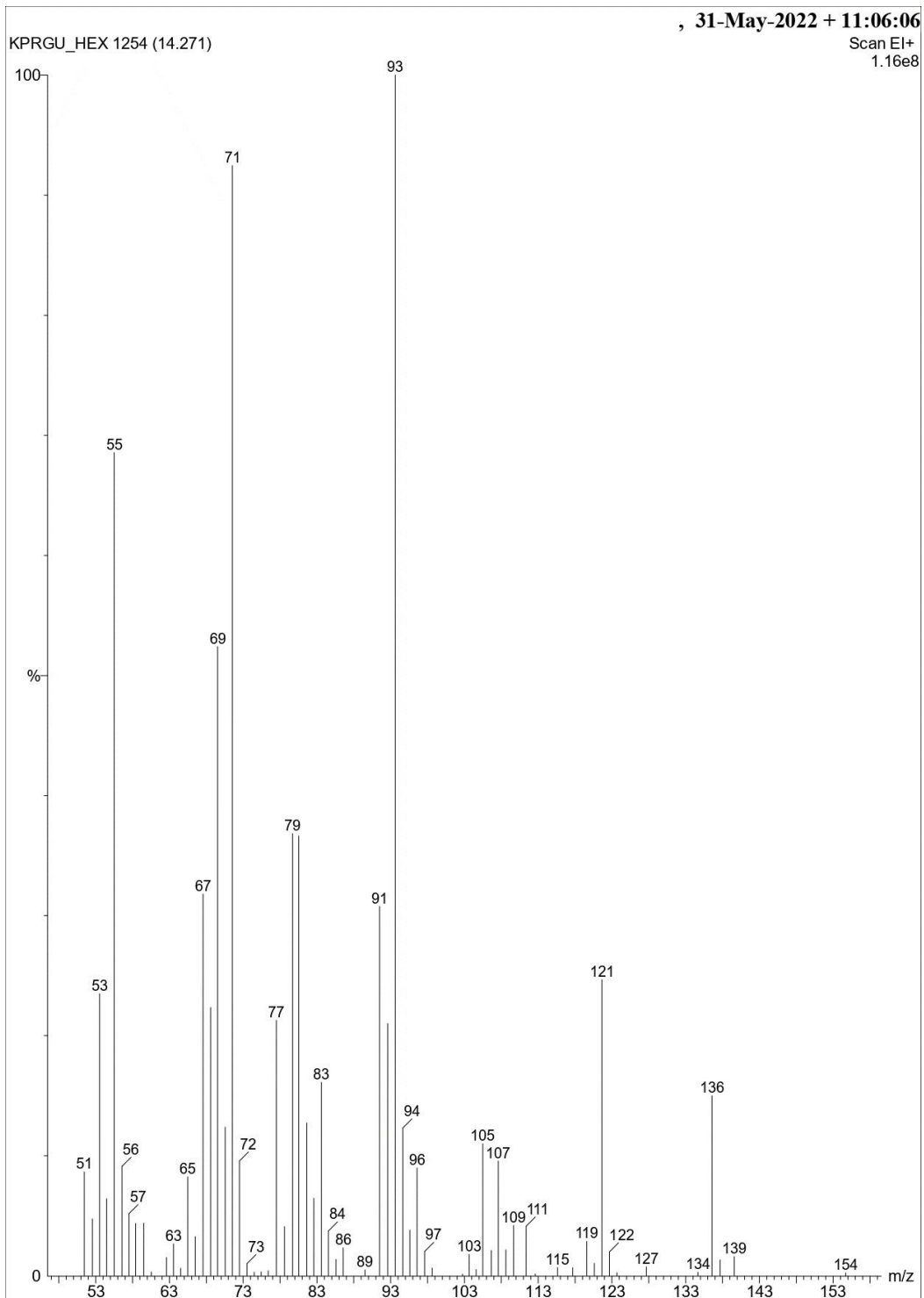
Phosphate Buffer Saline (PBS)

Composition**

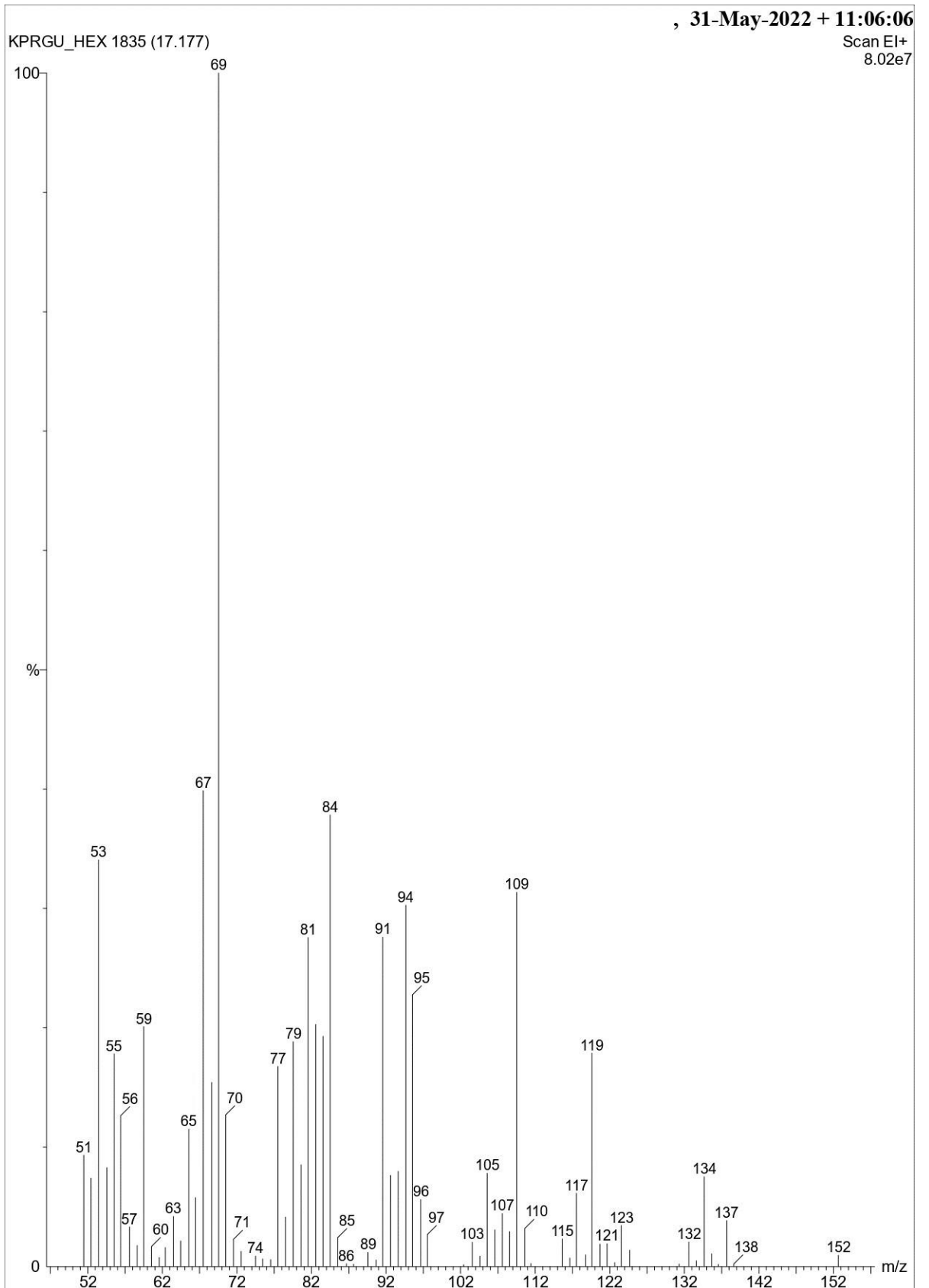
Ingredients	gram/litre
Sodium chloride	8
Potassium chloride	0.2
Sodium Phosphate Dibasic	1.44
Potassium phosphate monobasic	0.24
pH	7.4

** formula adjusted, standardized to suit performance parameters

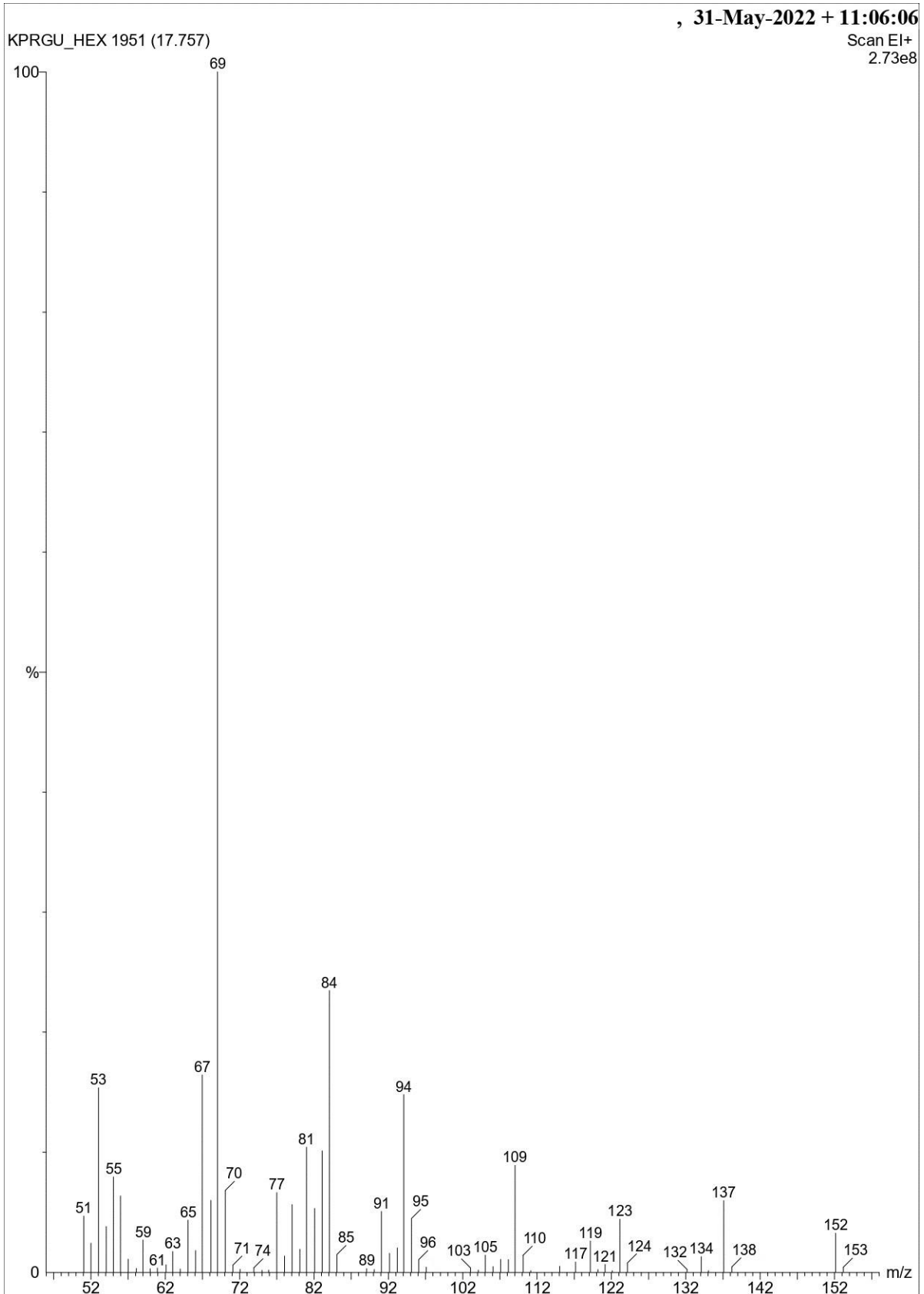
Mass spectra of the eluted peaks are as follows:



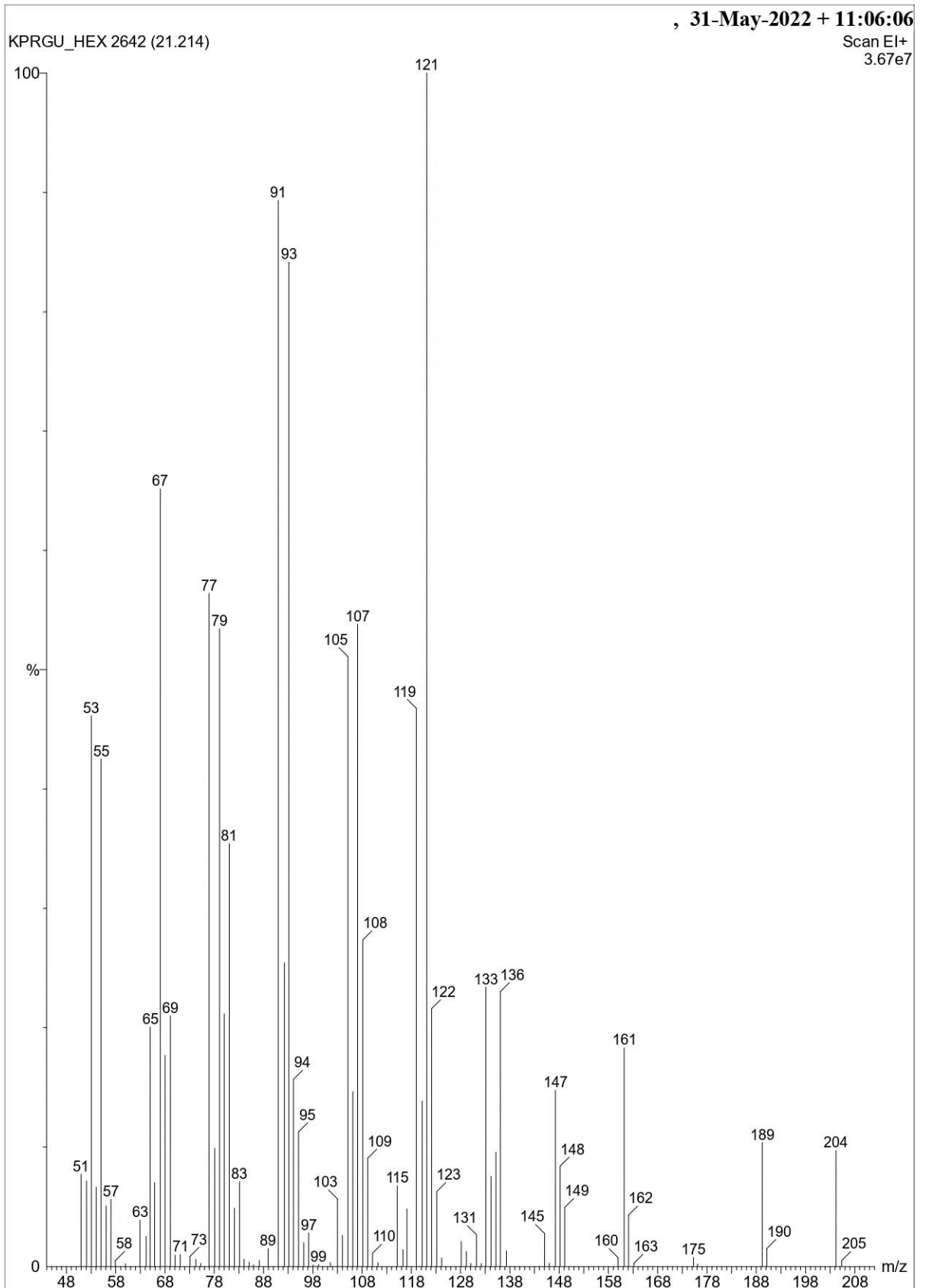
MS eluted peaks of *K. galanga* L at retention time 14.27



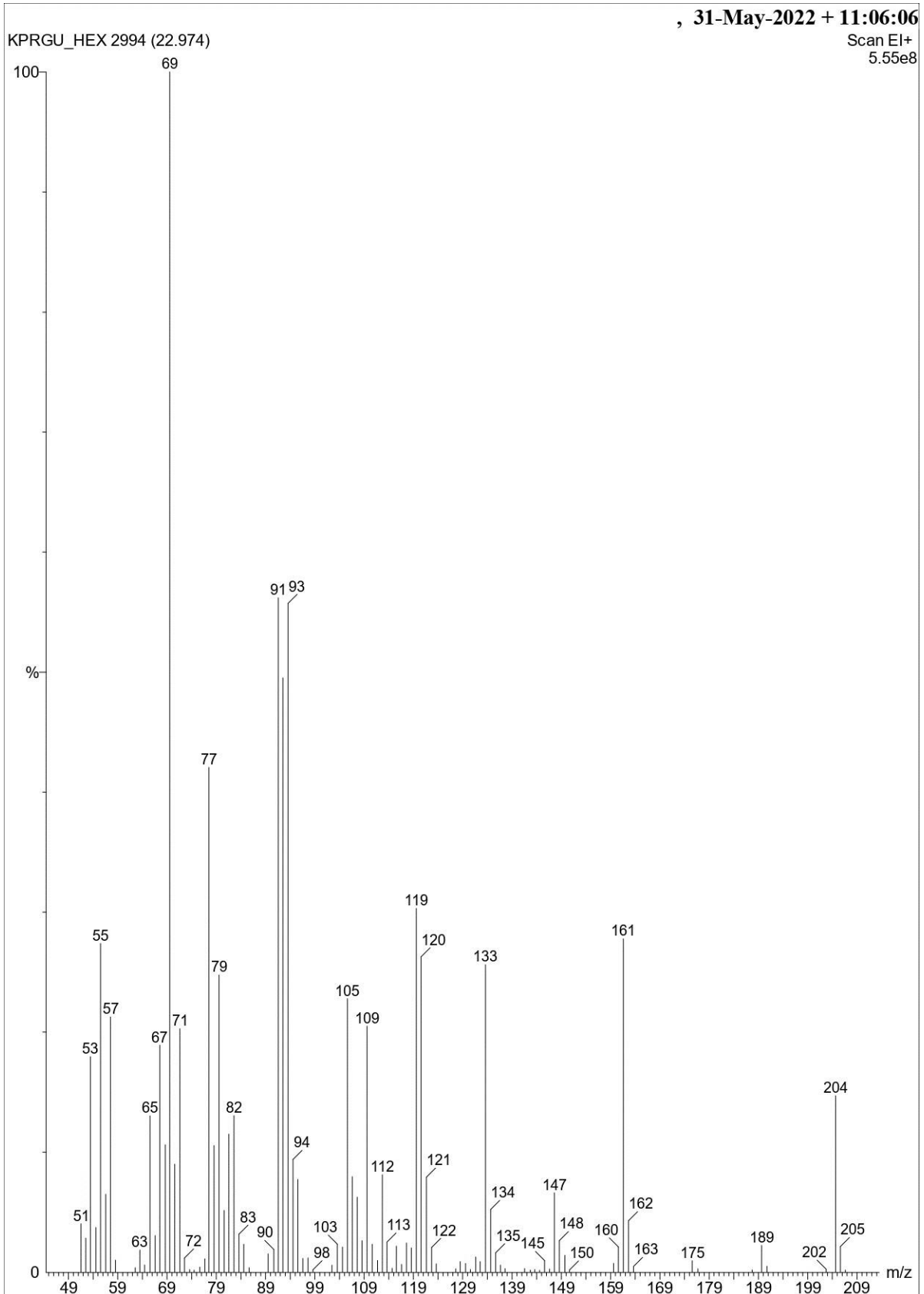
MS eluted peaks of *K. galanga* L at retention time 17.18



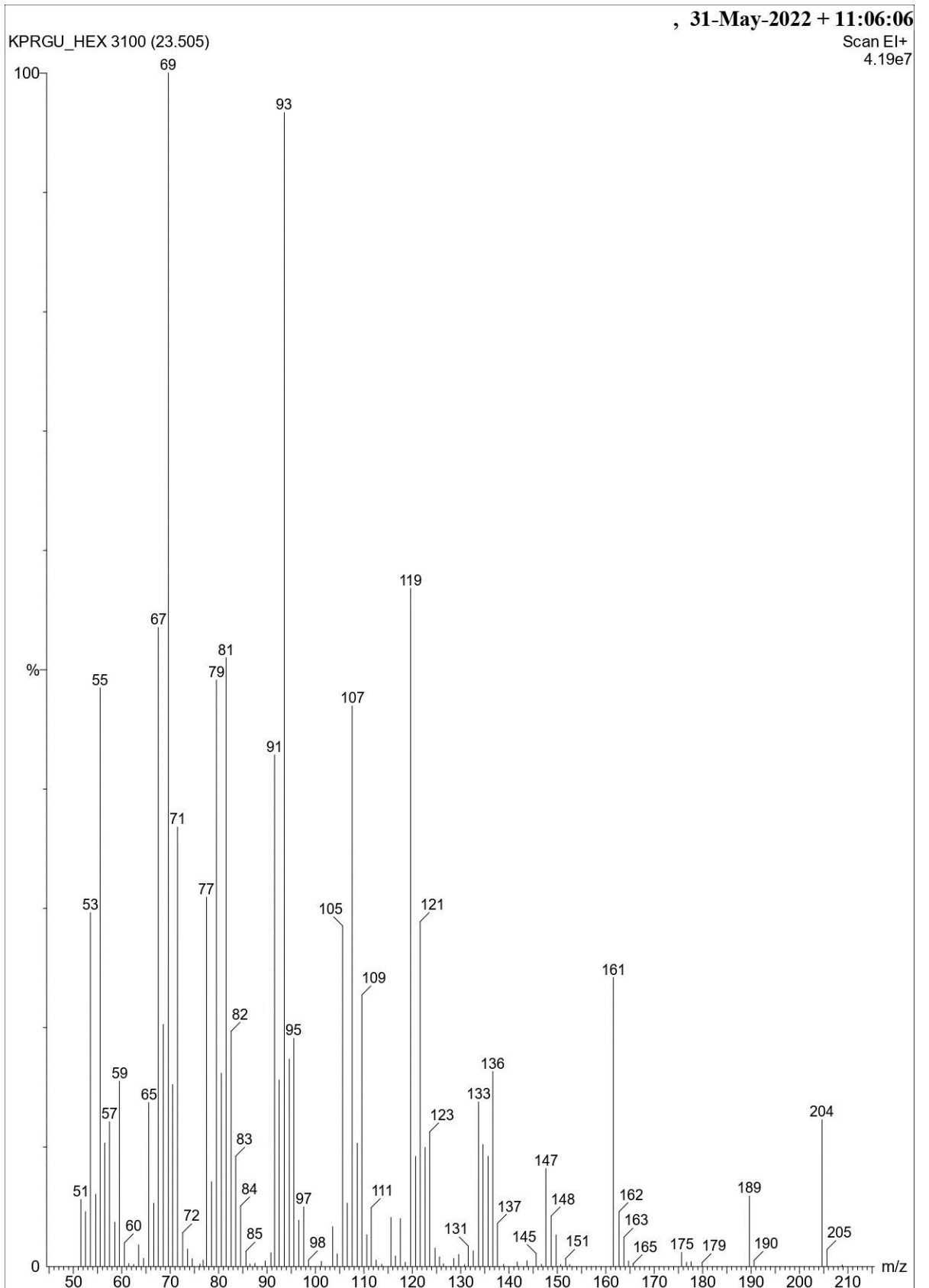
MS eluted peaks of *K. galanga* L at retention time 17.76



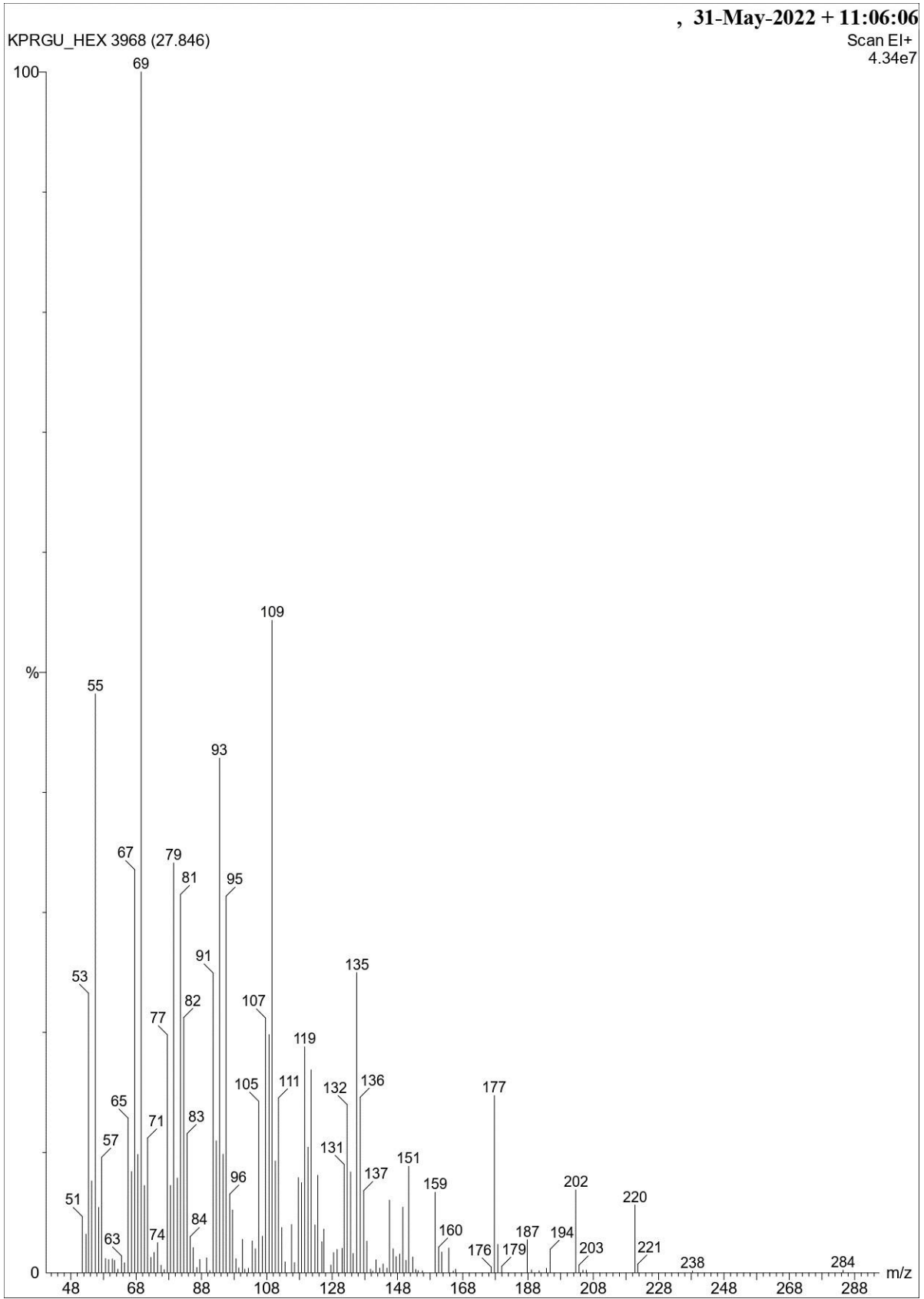
MS eluted peaks of *K. galanga* L at retention time 21.21



MS eluted peaks of *K. galanga* L at retention time 22.97



MS eluted peaks of *K. galanga* L at retention time 23.50



MS eluted peaks of *K. galanga* L at retention time 27.85

List of Publications

Journals

1. V. Sharma, B. Gogoi, S.N. Gogoi, A. Ghosh, A. Mazumdar and R.D. Kalita (2024), *In-silico* molecular docking and molecular dynamic simulation of γ -elemene and caryophyllene identified from the essential oil of *Kaempferia galanga* L. against biofilm forming proteins, CrtM and SarA of *Staphylococcus aureus* *Journal of Biomolecular Structure and Dynamics*, 1-13. <https://doi.org/10.1080/07391102.2024.2310773>. IF- 4.4
2. V. Sharma and Ranjan Dutta Kalita (2023), Antibacterial Activity of Medicinal Plants against Methicillin-Resistant *Staphylococcus aureus* and Their Mechanisms of Action against the Resistance, *Anti-Infective Agents*, Bentham Science (Scopus and Web of Science Indexed) (IF- 2.214) (Under Review).

Book Chapter

1. N. Singh, V. Sharma and R.D. Kalita (2023), Interaction between plants and endophytes: evolutionary significance and its role in plants development, *Plant Endophytes and Secondary Metabolites*, Elsevier.
2. Vanshika Sharma, Yutika Nath and Ranjan Dutta Kalita (2023), Plants as neuroprotective agents: Role of plant based natural products as potential brain health boosters, in *Plant Based foods and their Implications in Brain Health*, Editors: Saumya Mukherjee, Ramakrishna Akula, Atanu Bhattacharjee, Taylor and Francis, USA (Accepted and in press).

Patents

1. Vanshika Sharma, Bipul Nath, Dipankar Saha and Ranjan Dutta Kalita “Essential Oil Based Topical Ointment Formulation for Wound Healing” (Patent Filed for Grant)

Vanshika Sharma, Bipul Nath, Dipankar Saha and Ranjan Dutta Kalita “Wound Healing Topical Ointment Formulation Based on Essential Oil Obtained from *Kaempferia galanga* L.”

Application No.202331083484 A

The Patent Office Journal No. 50/2023

Conferences/Seminars

1. Vanshika Sharma and Dr. Ranjan Dutta Kalita, A comparative study on the nutritional value of *Prunus nepalensis*, *Pasiflora edulis*, *Psidium guajava* L. and *Corylus avellana* L. of Meghalaya, presented in International Conference-NAMASTE 2020, Novel Aspects in Medicines, Allied Sciences and Technologies for New Developing Era, DNA labs- A Centre for Applied Sciences, Dehradun, India, 10-12th September 2020.
2. Vanshika Sharma and Dr. Ranjan Dutta Kalita, Investigation into the phytochemical, antioxidant and nutritional components of *Rhus chinensis*, a traditional medicinal plant of North East, India poster presentation in the National Seminar on “Advances in Basic and Translational Research in Biology (ABTRiB)” organized by Department of Molecular Biology and Biotechnology, Tezpur University, 11 -12th March 2022.
3. Vanshika Sharma and Dr. Ranjan Dutta Kalita, Essential oil from *Kaempferia galanga* L. as an inhibitor of *Staphylococcus aureus* PBP2a protein: An *in-silico* study, National Conference on Drug Discovery and In-silico Drug Design, Royal School of Pharmacy, The Assam Royal Global University, Guwahati, Assam, 18th November 2022.
4. Vanshika Sharma and Ranjan Dutta Kalita, Essential oil from *Kaempferia galanga* L. as potential anti-biofilm agents: An *in-silico* validation using molecular docking and molecular simulation studies, “Bioeconomy 2023”, A two-day hybrid Conference, IIT Guwahati, 11-12 October, 2023.

Manuscript under preparation

1. Vanshika Sharma, Bipul Nath, Dipankar Saha, Sunaynana Barua and Ranjan Dutta Kalita, Wound healing study of topical formulation from *Kaempferia galanga* L. essential oil.