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SCiLS™ Lab Bibliography

● 2019 - 2020

SCiLS™ Lab Bibliography

The peer-reviewed and in-peer-reviewing communications listed below is a non-exhaustive list from the work empowered by SCiLS™ Lab in the years 2019-2020 and many more are to come.

SCiLS™ Lab is the world-leading software for analysis of mass spectrometry imaging data from all major mass spectrometry vendors, including Bruker's timsTOF fleX, timsTOF MALDI-2, MRMS and axial TOF instrument series.

SCiLS Lab Publications 2020

1. Andersen MK, Krossa S, Høiem TS, Buchholz R, Claes BS, Balluff B, et al.
Simultaneous detection of zinc and its pathway metabolites using MALDI MS imaging of prostate tissue. Analytical Chemistry. 2020.
<https://doi.org/10.1021/acs.analchem.9b04903>
2. Andrews WT, Donahue D, Holmes A, Balsara R, Castellino FJ, Hummon AB.
In situ metabolite and lipid analysis of GluN2D-/- and wild-type mice after ischemic stroke using MALDI MSI. Analytical and Bioanalytical Chemistry. 2020;1-11.
<https://doi.org/10.1007/s00216-020-02477-z>
3. Arnaud B, Durand S, Fanuel M, Guillon F, Méchin V, Rogniaux H.
An imaging study by mass spectrometry of the spatial variation of cellulose and hemicellulose structures in corn stalks. Journal of Agricultural and Food Chemistry. 2020.
<https://doi.org/10.1021/acs.jafc.9b07579>
4. Buchberger AR, Vu NQ, Johnson J, DeLaney K, Li L.
A Simple and Effective Sample Preparation Strategy for MALDI-MS Imaging of Neuropeptide Changes in the Crustacean Brain due to Hypoxia and Hypercapnia Stress. Journal of the American Society for Mass Spectrometry. 2020.
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Spatial metabolomics of in situ host–microbe interactions at the micrometre scale. Nature Microbiology. 2020;5(3):498-510.
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Simultaneous mass spectrometry imaging of multiple neuropeptides in the brain and alterations induced by experimental parkinsonism and L-DOPA therapy. Neurobiology of Disease. 2020;104738.
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Mass spectrometry imaging reveals lipid upregulation and bile acid changes indicating amitriptyline induced steatosis in a rat model. Toxicology letters. 2020.
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8. Komprda T, Sládek Z, Švehlová V, Lacková Z, Guráň R, Do T, et al.
The effect of different fatty acid sources on wound healing in rats assessed by matrix-assisted-laser-desorption-ionization mass-spectroscopy-imaging. Acta Veterinaria Brno. 2020;88(4):443-9.
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Hepatotoxic effects of inhalation exposure to polycyclic aromatic hydrocarbons on lipid metabolism of C57BL/6 mice. Environment international. 2020;134:105000.
<https://doi.org/10.1016/j.envint.2019.105000>
10. Marsilio S, Newman SJ, Estep JS, Giaretta PR, Lidbury JA, Warry E, et al.
Differentiation of lymphocytic-plasmacytic enteropathy and small cell lymphoma in cats using histology-guided mass spectrometry. Journal of Veterinary Internal Medicine. 2020.
<https://doi.org/10.1111/jvim.15742>
11. Nikitina A, Huang D, Li L, Peterman N, Cleavenger SE, Fernandez FM, et al.
A Co-registration Pipeline for Multi-modal MALDI and Confocal Imaging Analysis of Stem Cell Colonies. Journal of the American Society for Mass Spectrometry. 2020.
<https://doi.org/10.1021/jasms.9b00094>
12. Randall EC, Lopez BG, Peng S, Regan MS, Abdelmoula WM, Basu SS, et al.
Localized metabolomic gradients in patient-derived xenograft models of glioblastoma. Cancer Research. 2020;80(6):1258-67.
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Detecting Proteomic Indicators to Distinguish Diabetic Nephropathy from Hypertensive Nephrosclerosis by Integrating Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging with High-Mass Accuracy Mass Spectrometry. Kidney and Blood Pressure Research. 2020;45(2):233-48.
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Development of a high-coverage matrix-assisted laser desorption/ionization mass spectrometry imaging method for visualizing the spatial dynamics of functional metabolites in *Salvia miltiorrhiza* Bge. Journal of Chromatography A. 2020;1614:460704.
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19. Tian F, Liu R, Fan C, Sun Y, Huang X, Nie Z, et al.
Effects of Thymoquinone on Small-Molecule Metabolites in a Rat Model of Cerebral Ischemia Reperfusion Injury Assessed using MALDI-MSI. Metabolites. 2020;10(1):27.
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Evaluation of the splenic injury following exposure of mice to bisphenol S: A mass spectrometry-based lipidomics and imaging analysis. Environment international. 2020;135:105378.
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1. Angel PM, Bruner E, Bethard J, Clift CL, Ball L, Drake RR, et al.
Extracellular Matrix Alterations in Low Grade Lung Adenocarcinoma Compared to Normal Lung Tissue by Imaging Mass Spectrometry. Journal of Mass Spectrometry. 2019.
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Extracellular Matrix Imaging of Breast Tissue Pathologies by MALDI–Imaging Mass Spectrometry. PROTEOMICS–Clinical Applications. 2019;13(1):1700152.
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Metal Oxide Laser Ionization Mass Spectrometry Imaging (MOLI MSI) Using Cerium (IV) Oxide. Analytical chemistry. 2019;91(10):6800-7.
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Rapid MALDI mass spectrometry imaging for surgical pathology. NPJ precision oncology. 2019;3(1):1-5.
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MALDI Mass Spectrometry Imaging of Early- and Late-Stage Serous Ovarian Cancer Tissue Reveals Stage-Specific N-Glycans. Proteomics. 2019;19(21-22):1800482.
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Assessing the effect of nitisinone induced hypertyrosinaemia on monoamine neurotransmitters in brain tissue from a murine model of alkaptonuria using mass spectrometry imaging. Metabolomics. 2019;15(5):68.
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