

Resource Summary Report

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Madison Metabolomics Consortium Database

RRID:SCR_007803

Type: Tool

Proper Citation

Madison Metabolomics Consortium Database (RRID:SCR_007803)

Resource Information

URL: <http://mmcd.nmrfa.wisc.edu/>

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Description: A database which supports high-throughput NMR and MS approaches to the identification and quantification of metabolites present in biological samples. MMCD serves as a hub for information on small molecules of biological interest gathered from electronic databases and the scientific literature. Each metabolite entry in the MMCD is supported by information in separate data fields, which provide the chemical formula, names and synonyms, structure, physical and chemical properties, NMR and MS data on pure compounds under defined conditions where available, NMR chemical shifts determined by empirical and/or theoretical approaches, calculated isotopomer masses, information on the presence of the metabolite in different biological species, and links to images, references, and other public databases. The MMCD search engine supports versatile data mining and allows users to make individual or bulk queries on the basis of experimental NMR and/or MS data plus other criteria.

Abbreviations: MMCD

Synonyms: Madison Metabolomics Consortium Database (MMCD)

Resource Type: data or information resource, database, resource

Defining Citation: [PMID:18259166](#)

Keywords: database, metabolomics, metabolite, consortium, nmr, mas spectroscopy, FASEB list

Funding: NIDDK R21 DK070297;
NCRR P41 RR02301

Availability: Public

Resource Name: Madison Metabolomics Consortium Database

Resource ID: SCR_007803

Alternate IDs: nif-0000-03148

Record Creation Time: 20220129T080243+0000

Record Last Update: 20260829T182256+0000

Ratings and Alerts

No rating or validation information has been found for Madison Metabolomics Consortium Database .

No alerts have been found for Madison Metabolomics Consortium Database .

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 63 mentions in open access literature.

Listed below are recent publications. The full list is available at [dkNET](#) .

Liu WY, et al. (2024) Total cucurbitacins from *Herpetospermum pedunculosum* pericarp do better than Hu-lu-su-pian (HLSP) in its safety and hepatoprotective efficacy. *Frontiers in pharmacology*, 15, 1344983.

Gao Y, et al. (2024) Development and applications of metabolic models in plant multi-omics research. *Frontiers in plant science*, 15, 1361183.

Xu X, et al. (2024) The structural characterization and UV-protective properties of an exopolysaccharide from a *Paenibacillus* isolate. *Frontiers in pharmacology*, 15, 1434136.

Yan R, et al. (2024) Evaluation of the Efficacy of a Lactobacilli-Based Teat Detergents for the Microbiota of Cows Teats Using an Untargeted Metabolomics Approach. *Journal of microbiology and biotechnology*, 34(1), 103.

Sengupta A, et al. (2023) Early Perturbations in Red Blood Cells in Response to Murine Malarial Parasite Infection: Proof-of-Concept 1H NMR Metabolomic Study. *Life (Basel, Switzerland)*, 13(8).

Li Y, et al. (2023) Effect of PLA2G6 and SMPD1 Variants on the Lipid Metabolism in the Cerebrospinal Fluid of Patients with Parkinson's Disease: A Non-targeted Lipidomics Study. *Neurology and therapy*, 12(6), 2021.

Abuhijleh RK, et al. (2023) Chemomodulatory Effect of the Marine-Derived Metabolite "Terrein" on the Anticancer Properties of Gemcitabine in Colorectal Cancer Cells. *Marine drugs*, 21(5).

Ruan L, et al. (2022) NMR-based metabolomics approach to evaluate the toxicological risks of Tibetan medicine 'Ershiwuwei Shanhu' pill in rats. *Journal of ethnopharmacology*, 282, 114629.

Guo M, et al. (2022) [Lipid metabolomic analysis in exosomes of osteonecrosis of the femoral head based on ultra performance liquid chromatography-tandem mass spectrometry]. *Se pu = Chinese journal of chromatography*, 40(2), 123.

Bartolacci C, et al. (2022) Targeting de novo lipogenesis and the Lands cycle induces ferroptosis in KRAS-mutant lung cancer. *Nature communications*, 13(1), 4327.

Ruan L, et al. (2021) Hepatotoxicity or hepatoprotection of emodin? Two sides of the same coin by ¹H-NMR metabolomics profiling. *Toxicology and applied pharmacology*, 431, 115734.

Wu DL, et al. (2021) NMR-based metabolomics approach to study the effects of Wu-Zi-Yan-Zong-Wan on triptolide-induced oligospermia in rats. *Journal of ethnopharmacology*, 265, 113192.

Ruan L, et al. (2021) Activation of Adenosine A1 Receptor in Ischemic Stroke: Neuroprotection by Tetrahydroxy Stilbene Glycoside as an Agonist. *Antioxidants (Basel, Switzerland)*, 10(7).

Liu ZC, et al. (2021) Acute hepatotoxicity and nephrotoxicity risk assessment of the Tibetan medicine 25 flavors of the turquoise pill based on ¹H-NMR metabonomics. *Journal of ethnopharmacology*, 279, 113916.

Ma A, et al. (2021) Mining plant metabolomes: Methods, applications, and perspectives. *Plant communications*, 2(5), 100238.

Liu L, et al. (2021) Differentiation of gestational diabetes mellitus by nuclear magnetic resonance-based metabolic plasma analysis. *Journal of biomedical research*, 35(5), 351.

Luo HZ, et al. (2020) Growth inhibition and metabolomic analysis of *Xanthomonas oryzae* pv. *oryzae* treated with resveratrol. *BMC microbiology*, 20(1), 117.

Azizan A, et al. (2020) Potentially Bioactive Metabolites from Pineapple Waste Extracts and Their Antioxidant and α -Glucosidase Inhibitory Activities by ¹H NMR. *Foods (Basel, Switzerland)*, 9(2).

Pereiro X, et al. (2020) Comparative lipidomic analysis of mammalian retinal ganglion cells and Müller glia in situ and in vitro using High-Resolution Imaging Mass Spectrometry. *Scientific reports*, 10(1), 20053.

Wang Z, et al. (2020) Anti-inflammatory activity of 3-cinnamoyltribuloside and its metabolomic analysis in LPS-activated RAW 264.7 cells. *BMC complementary medicine and therapies*, 20(1), 329.