

## MALDI imaging data uploaded to Metaspaces and ProteomeExchange platforms

All samples specimens were collected in the field. Matrix was applied with a spray robot.

**Metaspaces** (<http://52.19.27.255/>)

Filename	Organism	Polarity	Analyzer	Detector resolving power	MALDI matrix	Sample stabilisation
BAz_FTICR.imzML	Mussel	Positive	FTICR	1000000	CHCA	Fresh frozen
BAz3_100x320_10um_E20_1000ms_500-1000.imzML	Mussel	Positive	Orbitrap	140000	2,5-dihydroxybenzoic acid (DHB)	Fresh frozen
BECKSexportfromdisk.imzML	Ciliate	Positive	FTICR	1000000	CHCA	Fresh frozen
CB48_DHB_pos_50-550_70um_392x170_A20.imzML	Plantseed	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Fresh frozen
Imperial_Regenwurm_Clistellum_centroid.imzML	Earthworm	Positive	FTICR	1000000	CHCA	Fresh frozen
Regenwurm_18Feb2014_pos_2_centroid.imzML	Earthworm	Positive	FTICR	1000000	CHCA	Fresh frozen
Regenwurm_tail_centroid.imzML	Earthworm	Positive	FTICR	1000000	CHCA	Fresh frozen
section2_DHB_100_1000_pos_250x250_A30_8um.imzML	Earthworm	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Fresh frozen
section2.3_DHB_100_1000_pos_250x250_A30_8um.imzML	Earthworm	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Fresh frozen
14_04_29_Regenwurm_pos_centroid.imzML	Earthworm	Positive	FTICR	1000000	CHCA	Fresh frozen
14_04_30_Regenwurm_neg_centroid.imzML	Earthworm	Negative	FTICR	1000000	CHCA	Fresh frozen
MPI_005_DHB_TM_100_1000_OA.imzML	Worm	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Formalin fixed, paraffin embedded
MPI_006_DHB_pos_100-1000_PSa.imzML	Worm	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Formalin fixed, paraffin embedded
MPI_010_20160404_DHB_pos_100-1000_BP.imzML	Mussel	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Fresh frozen
MPI_006_QE_OA.imzML	Worm	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Formalin fixed, paraffin embedded
MPI_007_QE_PS.imzML	Worm	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Formalin fixed, paraffin embedded
MPI_008_QE_BPS.imzML	Mussel	Positive	Orbitrap	280000	2,5-dihydroxybenzoic acid (DHB)	Formalin fixed, paraffin embedded

**Proteome exchange** (<http://ProteomeExchange.org/>)

The following data were deposited under the accession number PXD004399.

Filename	Organism	Polarity	Analyzer	Detector resolving power	MALDI matrix	Sample stabilisation
150429_EW_section1_pos	Earthworm	Positive	MALDI-TOF	70000	CHCA	Fresh frozen
150429_EW_section2_pos	Earthworm	Positive	MALDI-TOF	70000	CHCA	Fresh frozen
150505_EW_section3_pos	Earthworm	Positive	MALDI-TOF	70000	CHCA	Fresh frozen
150417_EW_section4_pos	Earthworm	Positive	MALDI-TOF	70000	CHCA	Fresh frozen