

ionSeen使用说明

网址：<http://58.87.96.81:3838/ionSeen/>

准备输入文件

1. 测离子计算后的输出结果文件（.csv格式）

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|----|------------|------------|-------------|-------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
| | Li.7..ppb. | B.11..ppb. | Na.23..ppb. | Mg.25..ppb. | P.31..ppb. | S.34..ppb. | K.39..ppb. | Ca.43..ppb. | Mn.55..ppb. | Fe.57..ppb. | Co.59..ppb. | Ni.60..ppb. |
| 1 | 17.3498957 | 981.731081 | 837.726659 | 2715.2067 | 7931.08031 | 9088.74313 | 28935.8236 | 28491.141 | 37.1396881 | 122.628786 | 11.6285965 | 9.31402464 |
| 2 | 13.9865251 | 799.028907 | 625.390129 | 3302.95752 | 8344.03384 | 13225.8898 | 22810.3311 | 34882.0368 | 42.6019274 | 126.023376 | 10.9779024 | 9.86836047 |
| 3 | 14.2204819 | 766.72638 | 673.14999 | 2780.61521 | 9191.25864 | 10779.7316 | 26541.4376 | 30888.2626 | 43.5687892 | 106.318591 | 13.9369739 | 5.73025657 |
| 4 | 14.3253963 | 1082.3782 | 585.494965 | 2595.66497 | 8762.96075 | 10794.5521 | 24645.199 | 28434.746 | 43.5702827 | 150.655013 | 16.4142497 | 6.51539349 |
| 5 | 14.5803109 | 700.991759 | 694.358888 | 3317.68436 | 8744.75311 | 11452.478 | 26467.5586 | 34296.84 | 43.0270998 | 113.746655 | 10.8654025 | 4.56651298 |
| 6 | 7.98463788 | 613.119315 | 538.438424 | 1851.09181 | 4826.14503 | 3498.46063 | 13103.8667 | 18693.9238 | 37.6798921 | 1667.56582 | 8.09835531 | 3.82390307 |
| 7 | 14.0120066 | 771.934098 | 691.231477 | 2937.0211 | 6921.34452 | 8578.83063 | 23560.0564 | 29221.5297 | 37.3954934 | 141.206468 | 15.7716342 | 8.48316234 |
| 8 | 17.3104271 | 1301.19873 | 926.323488 | 3250.71765 | 6923.22589 | 10531.5114 | 26916.721 | 32350.4156 | 35.1412941 | 104.398626 | 14.3673906 | 5.00389029 |
| 9 | 16.0483674 | 1332.84434 | 658.282547 | 2617.4929 | 7889.22591 | 10930.7226 | 34809.3074 | 30044.8555 | 40.6322361 | 90.5313061 | 13.3630765 | 5.62376156 |
| 10 | 12.1782788 | 889.356101 | 740.249924 | 2999.83019 | 8346.43203 | 12020.1538 | 31413.0444 | 26710.1094 | 33.9633873 | 95.9721396 | 13.6088519 | 1.92650741 |
| 11 | 14.4763861 | 958.509537 | 653.448173 | 3081.76329 | 7246.65613 | 11024.0021 | 24900.6907 | 33742.7154 | 36.2526822 | 241.489945 | 11.7274537 | 4.85159334 |
| 12 | 16.6839599 | 1021.27981 | 534.31063 | 3744.55946 | 7026.5326 | 8634.92297 | 22337.6297 | 40255.9378 | 42.4014374 | 88.7545472 | 12.2790466 | 2.05427905 |
| 13 | 17.2151699 | 598.147072 | 591.08482 | 3253.27795 | 7423.28826 | 6331.59305 | 26512.9186 | 32066.9687 | 38.1146074 | 102.917726 | 17.7309452 | 2.74311031 |
| 14 | 17.9761211 | 1376.70128 | 868.874701 | 3276.62088 | 8856.2738 | 6483.33063 | 26606.527 | 27931.9508 | 38.6018908 | 115.544131 | 15.2295917 | 3.83831567 |
| 15 | 14.6296407 | 706.447202 | 816.945584 | 3419.6059 | 8508.80821 | 4647.13841 | 28289.4637 | 27931.9399 | 35.9497004 | 111.589862 | 14.7042826 | 22.5007929 |

2.

| | A | B |
|----|----|----------|
| 1 | NO | Sample |
| 2 | | 1 Col-0 |
| 3 | | 2 Col-0 |
| 4 | | 3 Col-0 |
| 5 | | 4 Col-0 |
| 6 | | 5 Col-0 |
| 7 | | 6 Col-0 |
| 8 | | 7 Col-0 |
| 9 | | 8 Col-0 |
| 10 | | 9 Col-0 |
| 11 | | 10 Col-0 |
| 12 | | 11 Col-0 |
| 13 | | 12 Col-0 |
| 14 | | 13 13419 |
| 15 | | 14 13419 |
| 16 | | 15 13419 |
| 17 | | 16 13419 |
| 18 | | 17 13419 |
| 19 | | 18 13419 |

样品编号，与测离子输出文件要顺序一致（.csv格式）

使用

Input

上传数据，如果上传后正常会在右侧显示一部分数据。

InputDiscoveryBarplot

Upload Ion Result

Browse...No file selected

Upload Sample Table

Browse...No file selected

General View

Heatmap

PCA

选择测离子结果

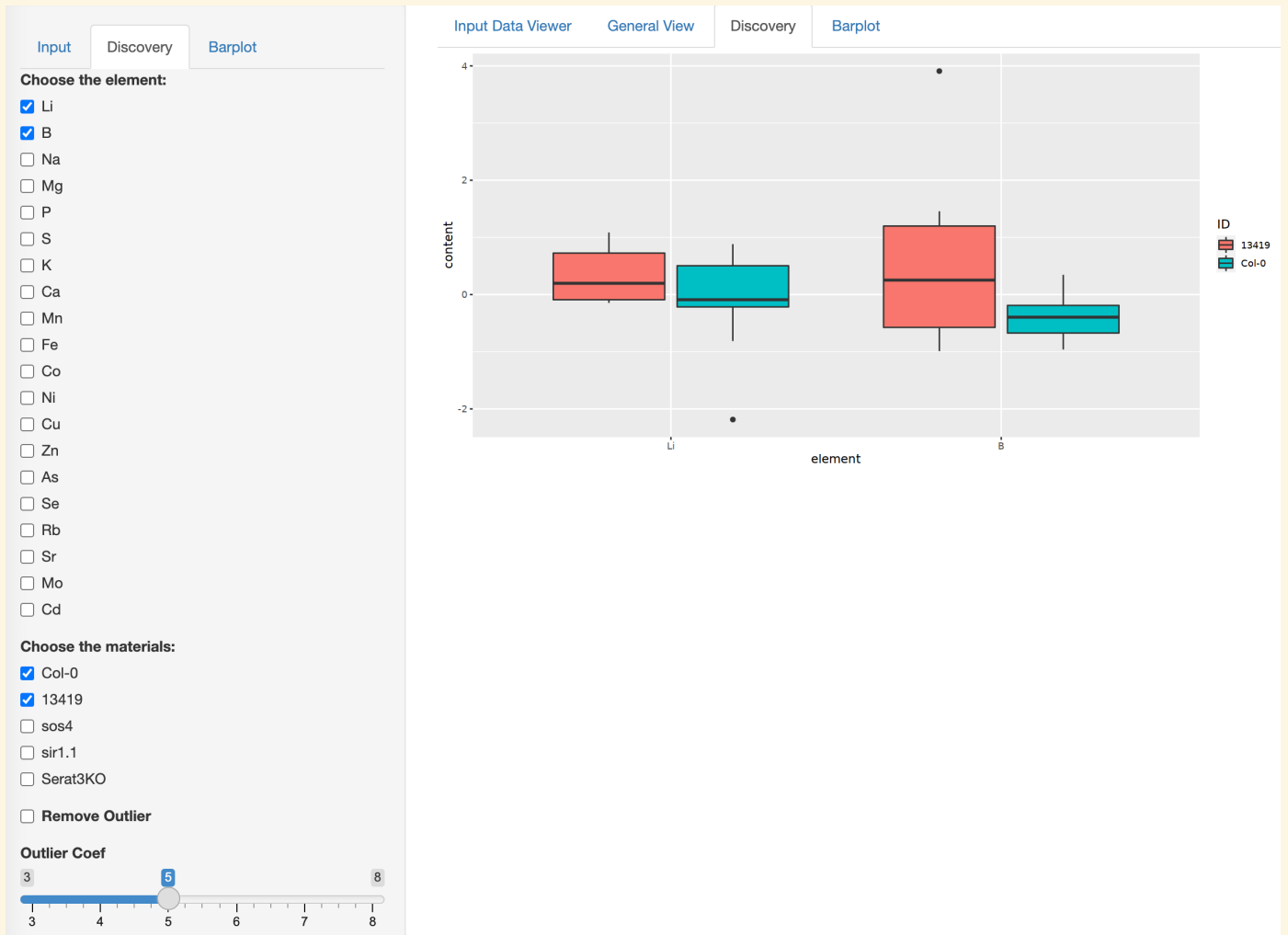
选择样品列表

在右侧general view中展示热图与PCA图

Input Data ViewerGeneral ViewDiscoveryBarplot

Discovery

选中左侧与右侧Discovery后，可以选择要观察的样本与离子，右侧展示绘图



Barplot

左侧与右侧都选择**Barplot**即可进行单元素绘图。选中一种元素，选择多个样品。如果选择两个材料，使用Welch t.test计算显著性；如果选择三个及以上材料，进行单因素方差分析，并用LSD法进行多重比较【注：如果ANOVA下面显示insignificant则上方标记字母结果无意义】。

