**Supplementary Materials:**

**Table S1.** Biased correlation analysis of tailings containing Setaria viridis（* p<0.05 ** p<0.01）.

| Parameter Type | Relevance | RLRD | RLRV | RDRL | RDRV | RVRL | RVRD |
|---|---|---|---|---|---|---|---|
| Weight capacity | Correlation coefficient | 0.998 ** | −0.965 * | −0.489 | −0.467 | 0.955 * | 0.988 * |
| | value of p | 0.002 | 0.035 | 0.072 | 0.067 | 0.045 | 0.012 |
| Water content | Correlation coefficient | 0.791 | −0.970 * | −0.864 | −0.920 | 0.963 * | 0.864 |
| | value of p | 0.209 | 0.030 | 0.136 | 0.080 | 0.037 | 0.154 |
| Porosity | Correlation coefficient | 0.955 * | −0.918 | −0.957 * | −0.844 | 0.947 | 0.966 * |
| | value of p | 0.045 | 0.082 | 0.043 | 0.156 | 0.053 | 0.034 |

**Table S2.** Biased correlation analysis of tailings containing Cynodon dactylon (L.) （* p<0.05 ** p<0.01）.

| Parameter Type | Relevance | RLRD | RLRV | RDRL | RDRV | RVRL | RVRD |
|---|---|---|---|---|---|---|---|
| Weight capacity | Correlation coefficient | 0.951 * | −0.998 ** | −0.975 * | −0.991 ** | 0.997 ** | 0.971 * |
| | value of p | 0.049 | 0.002 | 0.025 | 0.009 | 0.003 | 0.029 |
| Water content | Correlation coefficient | 0.901 | −0.975 * | −0.923 | −0.955 * | 0.969 * | 0.930 |
| | value of p | 0.099 | 0.025 | 0.077 | 0.045 | 0.031 | 0.070 |
| Porosity | Correlation coefficient | 0.989 * | −0.955 * | −0.989* | −0.975 * | 0.957 * | 0.976 * |
| | value of p | 0.011 | 0.045 | 0.011 | 0.025 | 0.043 | 0.024 |