

Fig. A.1. Schematic diagram of experimental device



Fig. A.2. Principal component analysis of Shannon, Simpson, Chao and Ace indexes of sample(A); Correlation between B environmental factors and Shannon, Simpson, Chao and Ace indexes (B)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Time (day) | T (℃) | pH | Number of holes | Pore Depth (mm) | Specific surface area (m2/m3) |
| D1 | 140 | 23.37 | 7.24 | 64 | 0.4 | 400 |
| D2 | 150 | 22.28 | 7.63 | 64 | 0.4 | 400 |
| D3 | 160 | 19.46 | 7.43 |  64 | 0.4 | 400 |
| D4 | 170 | 18.37 | 7.46 | 64 | 0.4 | 400 |
| D5 | 180 | 17.15 | 7.47 | 64 | 0.4 | 400 |
| D6 | 190 | 18.13 | 7.56 | 64 | 0.4 | 400 |
| D7 | 200 | 15.15 | 7.22 | 64 | 0.4 | 400 |
| D8 | 210 | 11.63 | 7.19 | 64 | 0.4 | 400 |
| D9 | 220 | 8.6 | 7.58 | 64 | 0.4 | 400 |
| X1 | 140 | 23.37 | 7.32 | 4 | 1.2 | 350 |
| X2 | 150 | 22.28 | 7.66 | 4 | 1.2 | 350 |
| X3 | 160 | 19.46 | 7.58 | 4 | 1.2 | 350 |
| X4 | 170 | 18.37 | 7.53 | 4 | 1.2 | 350 |
| X5 | 180 | 17.15 | 7.44 | 4 | 1.2 | 350 |
| X6 | 190 | 18.13 | 7.55 | 4 | 1.2 | 350 |
| X7 | 200 | 15.15 | 7.05 | 4 | 1.2 | 350 |
| X8 | 210 | 11.63 | 7.18 | 4 | 1.2 | 350 |
| X9 | 220 | 8.6 | 7.34 | 4 | 1.2 | 350 |

Table A.1. Environmental Factors