**Table 2. Speciation results of biochar sorption of Cd from solution.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Cd speciation distribution (%) |  |
| Biochar rate (%) | Treatment time (d) | OM/Biochar | Cd sulfate | Cd thiol | Mineral Bound | R-factor\* |
| 5 | 0.04 | 69 | 16 | 15 |  | 0.0021 |
| 15 | 66 | 18 | 16 |  | 0.0021 |
| 5 | 1 | 65 | 19 | 16 |  | 0.0032 |
| 15 | 62 | 20 | 18 |  | 0.0029 |
| 5 | 14 | 65 | 21 | 14 |  | 0.0019 |
| 15 | 66 | 20 | 14 |  | 0.0029 |
| 5 | 120 | 67 | 21 | 12 |  | 0.0078 |
| 15 | 68 | 20 | 12 |  | 0.0014 |

\* A measure of mean square sum of the misfit at each data point.

**Table 3. Speciation results of biochar sorption of Cd from contaminated soil.**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Cd speciation distribution (%) |  |
| Biochar rate (%) | Treatment time (d) | OM/Biochar | Cd sulfate | Cd thiol | Mineral Bound | R-factor\* |
| 0 | 0.04 | 37 | 21 | 18 | 24 | 0.0031 |
| 5 | 39 | 30 | 14 | 18 | 0.0022 |
| 15 | 38 | 29 | 19 | 15 | 0.0019 |
| 0 | 1 | 40 | 15 | 19 | 26 | 0.0011 |
| 5 | 46 | 20 | 13 | 22 | 0.0013 |
| 15 | 47 | 22 | 12 | 20 | 0.0017 |
| 0 | 14 | 37 | 16 | 20 | 27 | 0.0019 |
| 5 | 45 | 19 | 14 | 23 | 0.0023 |
| 15 | 50 | 17 | 11 | 23 | 0.0025 |
| 0 | 120 | 35 | 15 | 23 | 28 | 0.0015 |
| 5 | 48 | 15 | 13 | 25 | 0.0023 |
| 15 | 55 | 14 | 11 | 20 | 0.0037 |

\* A measure of mean square sum of the misfit at each data point.