Electronic Supplementary Material

LR Model. LR is a classical statistical method used to establish a linear relationship the input features x and the target variable y, it is considered the most fundamental algorithmic model in the field of machine learning. The mathematical formulation of the LR model can be represented as follows:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_r x_r + e \quad (1)$$

Where β_0 is a constant term, $\beta_1, \beta_2 \ldots \beta_r$ are regression coefficients, β_1 is the effect of every unit increase of X_1 on y when X_1, $X_2 \ldots X_r$ is fixed, i.e., the partial regression coefficient of X_1 on y; similarly β_2 is the effect of every unit increase of X_2 on y when X_1, $X_2 \ldots X_r$ is fixed, i.e., the partial regression coefficient of X_2 on y.

KNN Model. KNN is a commonly used supervised learning algorithm that represents each sample by its nearest K neighbors. The basic principle: first, K objects are randomly selected, and each object selected represents the initial mean or initial group center value of a group, for each of the remaining objects, according to its distance from the initial mean of each group, they are assigned to the nearest (most similar) group, and then recalculate the new mean value of each group, and the process repeats itself until all the objects in the K-group distribution have found the nearest group to themselves. The distance measure is usually Euclidean distance, which is given by the following equation:

$$d = \sqrt{\sum_{i=1}^{n} (x_i - y_i)^2} \quad (2)$$

Where d is the Euclidean distance between data x_i and data y_i, n denotes the number of indicator variables.

SVR Model. SVR is a regression algorithm that is based on Support Vector Machines (SVM). Unlike traditional regression models, SVR does not fit the data directly, but performs regression by finding an optimal hyperplane. This hyperplane can be thought of as a function that maps the input space to the output space. The SVR model aims to find a function $f(x)$ that approximates the relationship between input features x and the corresponding target values y. The mathematical formulation of the LR model can be represented as follows:

$$f(x) = \omega x + b \quad (3)$$

Where $f(x)+\varepsilon$ and $f(x)-\varepsilon$ are the upper and lower edges of the isolation zone. The SVR model aims to find the optimal function $f(x)$ that fits the data within a margin of error ε, by formulating an optimization problem that takes into account the margin, slack variables, and regularization parameter C.

DT Model. A decision tree is a bifurcated tree structure that consists mainly of nodes and branches, including a unique root node. The decision tree trains and predicts the dataset from the root node downwards, and the non-leaf nodes at each level decide to classify the dataset according to the corresponding feature attributes of the dataset to get more sub-datasets, and then repeat the above process and pass it to the lower level nodes until the final pass to the leaf node to stop the classification of the dataset and get the final result. The evaluation of node characteristic attributes is mainly realized by criteria such as information gain, Gini index, etc. In this paper, the CART decision tree based on Gini index is used for prediction. The Gini coefficient is defined as follows:

$$Gini(D) = \sum_{k=1}^{m} \sum_{k' \neq k} p_k p_{k'} = 1 - \sum_{k=1}^{m} p_k^2 \quad (4)$$

The Gini coefficient responds to the probability that two samples are randomly selected from the data set and their categories do not coincide, so the smaller the Gini coefficient, the higher the purity of the data set, and the Gini coefficient of feature a is defined as follows:

$$Gini\_index(D,a) = \sum_{n=1}^{N} \frac{|D_n|}{|D|} Gini(D_n) \quad (5)$$

RF Model. RF is an optimized version of Bagging based on a tree model, which solves the weak generalization ability of curved trees. The same batch of data, with the same algorithm can only produce one tree, this time Bagging strategy can help us to produce different data sets. Bagging strategy from bootstrap aggregation: from the sample set (assuming that the sample set of N data points) in the re-sampling to select the Nb samples (with put back the sampling, the number of sample data points is still unchanged for N), in the all samples, build classifiers (ID3\C4.5\CART\SVM\LOGISTIC) on these n samples, repeat the above two steps m times to obtain m classifiers, and finally, according to the voting results of these m classifiers, the final result is obtained.

GBDT Model. GDBT is an algorithm that combines Decision Tree and Boosting, which is a very important branch of Boosting algorithm. Compared with the traditional Boosting algorithm, the Gradient Boosting Tree algorithm no longer uses the weight assignment, but takes the loss function as the key to the algorithm, each model is built on the gradient of the loss function of the last model established in the direction of the gradient of the decline, the accuracy of the model is completely dependent on the loss function, the smaller the loss function, the model is less prone to error, if you keep the loss function to keep declining, you can constantly optimize the model. If the loss function is kept decreasing, the model can be optimized continuously. GBDT algorithm can be viewed as an additive model consisting of M trees, whose corresponding formulas are as follows:

$$F(x,w) = \sum_{m=0}^{M} \alpha_m h_m(x,w_m) = \sum_{m=0}^{M} f_m(x,w_m) \quad (6)$$

where x is the input sample; w is the model parameters; h is the categorical regression tree; and α is the weight of each tree.

XGBoost Model. XGBoost is developed and optimized on the basis of GBDT algorithm. Compared with the GBDT algorithm, it mainly improves the loss function and regularization, and proposes the tangent point finding algorithm, sparse perception algorithm, and parallelization algorithm. The XGBoost algorithm adopts the strategies including cross-validation, parallel training, etc., in order to efficiently prevent the occurrence of overfitting, which can both improve the operation efficiency and the model accuracy. The mathematical formulation of the XGBoost model can be represented as follows:

$$\hat{y}_i^{(t)} = \sum_{k=1}^{t} f_k(x_i) = \hat{y}_i^{(t-1)} + f_t(x_i) \quad (7)$$

Where $\hat{y}_i^{(t)}$ represents the predicted output for the i-th sample at iteration t, y_i represents the true output or target value for the i-th sample, t represents the current iteration or the index of the current weak learner being added to the ensemble, x_i represents the feature vector or input for the i-th sample.

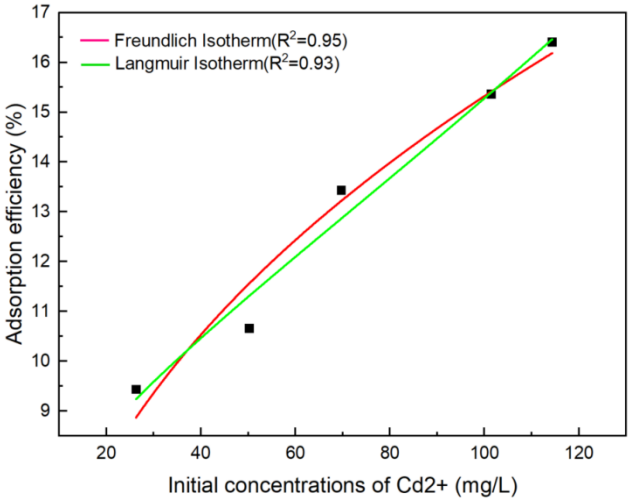

Fig. S1 Adsorption isotherm curves of the biochar for cadmium ion. The adsorption equilibrium data were both fitted well with the Freundlich Isotherm and Langmuir Isotherm, and their polynomial fitting coefficients R^2 respectively are 0.95 and 0.93.

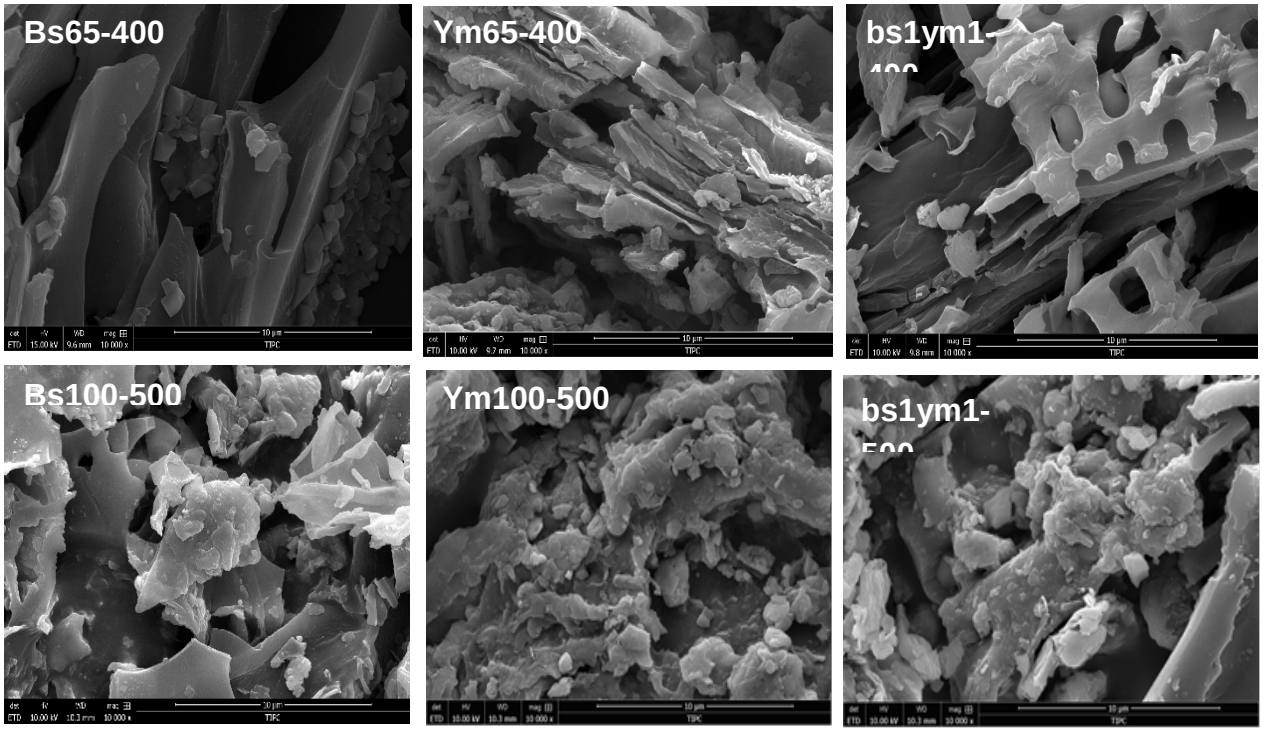

Fig. S2 SEM images of the biochars derived from the yak manure (YM), the highland barley straws (BS) and their mixtures (YM:BS = 1:1) at 400℃ and 500 ℃ respectively.

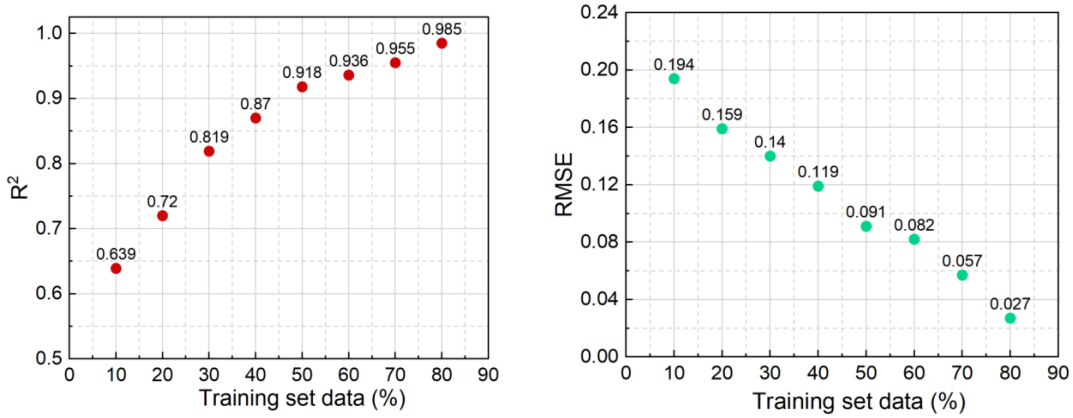

Fig. S3 Test set performance of stacking model on different training-set proportions (ranged from 10 to 80%).

Table S1 Basic physical and chemical characteristics of the YM and the BS

Basic physical and chemical properties of biomass feedstock									
Biomass feedstock	Elemental Analysis(wt.%)				Industrial Analysis(wt.%)				Data source
	C	H	O	N	OM	VOM	FC	Ash	
Barley straw	48.24	5.96	44.87	0.93	7.74	68.14	17.22	6.90	This research
Yak manure	32.67	5.26	60.55	1.52	5.00	44.81	11.39	38.80	This research

Analysis of heavy metal content in biomass feedstock								
Biomass feedstock (mg/kg)	As	Cr	Cd	Cu	Hg	Ni	Pb	Zn
Barley straw	<2.0	54.8	<2.0	12.3	<2.0	45.5	<2.0	36.9
Yak manure	<2.0	33.4	<2.0	12.1	<2.0	102.4	<2.0	40.6

Measurement and comparison of cellulose content in biomass feedstock（wt.%）

Biomass feedstock	Cellulose	Hemicellulose	Lignin	Data source
Barley straw	37.65	17.42	15.70	This research
Yak manure	5.85	15.36	20.36	This research

Quantitative XRF analysis results of biomass feedstock

Biomass feedstock (%)	Na	Mg	Al	Si	P	S	Cl	K	Ca	Ti	Fe	Zn
Yak manure	0.84	1.64	8.08	33.1	1.63	1.83	0.95	9.54	23.5	1.30	16.6	0.12
Barley straw	1.21	1.00	1.66	13.7	1.54	1.83	7.92	32.9	29.9	0.65	7.46	0.27

Table S2 The nitrogen adsorption-desorption measurement parameters of different biochar samples

Biochar samples	Surface area (m^2/g)	Total pore volume (cm^3/g)	Average pore size (nm)
ym-400	12.35	0.0379	7.63
ym3bs1-400	6.59	0.0279	8.47
ym2bs1-400	5.55	0.0259	9.33
ym1bs1-400	9.84	0.0471	5.25
ym1bs2-400	5.87	0.0357	8.37
ym1bs3-400	2.45	0.0223	8.2
bs-400	3.86	0.0376	2.55
ym-500	12.94	0.0421	6.51
ym3bs1-500	12.44	0.0247	7.95
ym2bs1-500	10.70	0.0186	6.97
ym1bs1-500	27.41	0.0515	3.75
ym1bs2-500	13.26	0.0177	5.35
ym1bs3-500	4.157	0.0090	8.86
bs-500	7.953	0.0140	6.82

Table S3 Functional groups and compounds represented by different wave peaks

Wave number(cm^{-1})	Functional groups	Compounds
3200~3700	-OH	Organic acids, methanol
2700~3000	C-H_n	Alkyl, aliphatic hydrocarbons
1700~1730	C=O	Carboxyl and carbonyl chemicals
1450~1600	C=O C=C	Ketones and carbonyls, aromatics and olefins
1420~1480	-CH	Aliphatic groups
1360~1430	-OH, -CH, O=C=O	Hydrocarbon, organic acid, phenol and alcohol
1200~1300	C-O	Ether and phenol
1000~1200	C=O, C-O-C, C-N	Ketones, ethers and phenols
700~900	C-H	Aromatic hydrogen
400~700	C-C, C-O-H	-

Table S4 Statistics and analysis of the built data sets

	pH_{H2O}	C	(O+N)/C	O/C	H/C	Ash	SA	CEC	T	pH_{sol}	C_0	HM_x
count	476	476	476	476	476	476	476	476	476	476	476	476
mean	9.705	62.971	0.183	0.162	0.441	25.122	41.333	23.18	23.855	5.348	0.519	0.213
std	1.105	18.587	0.106	0.099	0.231	20.746	65.879	31.88	2.61	1.56	0.559	0.317
min	6.78	15.92	0.034	0.021	0.025	1.25	2.46	2.53	20	2	0.003	0
25%	6.78	48.19	0.101	0.076	0.286	7.72	12.444	7.2	20	5	0.011	0.005
50%	10	68.26	0.149	0.136	0.38	23.82	23.2	17.4	25	5.5	0.238	0.089
75%	10.33	79	0.26	0.243	0.549	35.25	37.2	23.8	25	6	1	0.221
max	12.18	90.21	0.524	0.449	1.084	88.07	465	247.51	28	10	2.413	1.584

Table S5 Dataset of biochar adsorption for machine learning

Biomass_feedstock	pH_H_2O	C	(O+N)/C	O/C	H/C	Ash	SA	CEC	T	pH_sol	*C*0	Metal_type	*AE*
JWC700-1	9.43	85.3	0.079	0.076	0.225	3.3	309.29	7.85	25	3	0.08	Cu2+	0.0348
JWC700-2	9.43	85.3	0.079	0.076	0.225	3.3	309.29	7.85	25	4	0.08	Cu2+	0.0436
JWC700-3	9.43	85.3	0.079	0.076	0.225	3.3	309.29	7.85	25	5	0.08	Cu2+	0.0502
PWC700-1	7.79	79	0.145	0.142	0.456	2.2	219.35	3.17	25	3	0.08	Cu2+	0.0083
PWC700-2	7.79	79	0.145	0.142	0.456	2.2	219.35	3.17	25	4	0.08	Cu2+	0.0223
PWC700-3	7.79	79	0.145	0.142	0.456	2.2	219.35	3.17	25	5	0.08	Cu2+	0.0313
PWC700-4	7.79	79	0.145	0.142	0.456	2.2	219.35	3.17	25	3	0.08	Zn2+	0.0065
PWC700-5	7.79	79	0.145	0.142	0.456	2.2	219.35	3.17	25	4	0.08	Zn2+	0.0137
PWC700-6	7.79	79	0.145	0.142	0.456	2.2	219.35	3.17	25	5	0.08	Zn2+	0.0162
JWC700-4	9.43	85.3	0.079	0.076	0.225	3.3	309.29	7.85	25	3	0.08	Zn2+	0.0146
JWC700-5	9.43	85.3	0.079	0.076	0.225	3.3	309.29	7.85	25	4	0.08	Zn2+	0.0289
JWC700-6	9.43	85.3	0.079	0.076	0.225	3.3	309.29	7.85	25	5	0.08	Zn2+	0.0309
WS600-1	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	0.2413	Pb2+	0.2208
WS600-2	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	0.4826	Pb2+	0.3785
WS600-3	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	0.7239	Pb2+	0.3974
WS600-4	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	0.9653	Pb2+	0.4453
WS600-5	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	1.4479	Pb2+	0.5248
WS600-6	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	1.9305	Pb2+	0.5934
WS600-7	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	2.4131	Pb2+	0.6519
RH600-1	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	0.2413	Pb2+	0.135
RH600-2	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	0.4826	Pb2+	0.1773
RH600-3	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	0.7239	Pb2+	0.2175
RH600-4	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	0.9653	Pb2+	0.2318
RH600-5	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	1.4479	Pb2+	0.2643
RH600-6	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	1.9305	Pb2+	0.2863
RH600-7	10.03	50.63	0.059	0.051	0.325	43.82	198.11	6.27	25	5	2.4131	Pb2+	0.3042
BWH350-1	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0029	Pb2+	0.0029
BWH350-2	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0039	Pb2+	0.0038
BWH350-3	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0048	Pb2+	0.0048
BWH450-1	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0029	Pb2+	0.0029
BWH450-2	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0039	Pb2+	0.0038
BWH450-3	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0048	Pb2+	0.0048
BWH550-1	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0029	Pb2+	0.0029
BWH550-2	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0039	Pb2+	0.0039
BWH550-3	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0048	Pb2+	0.0048
BWH650-1	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0029	Pb2+	0.0029
BWH650-2	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0039	Pb2+	0.0039
BWH650-3	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0048	Pb2+	0.0048

CC350-1	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0029	Pb2+	0.0029
CC350-2	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0039	Pb2+	0.0038
CC350-3	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0048	Pb2+	0.0048
CC450-1	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0029	Pb2+	0.0029
CC450-2	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0039	Pb2+	0.0038
CC450-3	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0048	Pb2+	0.0048
CC550-1	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0029	Pb2+	0.0028
CC550-2	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0039	Pb2+	0.0038
CC550-3	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0048	Pb2+	0.0046
CC650-1	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0029	Pb2+	0.0029
CC650-2	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0039	Pb2+	0.0038
CC650-3	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0048	Pb2+	0.0047
MW350-1	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0029	Pb2+	0.0029
MW350-2	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0039	Pb2+	0.0038
MW350-3	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0048	Pb2+	0.0048
MW450-1	11.1	70.8	0.275	0.252	0.563	7.72	31.45	22.1	25	5.5	0.0029	Pb2+	0.0029
MW450-2	11.1	70.8	0.275	0.252	0.563	7.72	31.45	22.1	25	5.5	0.0039	Pb2+	0.0038
MW450-3	11.1	70.8	0.275	0.252	0.563	7.72	31.45	22.1	25	5.5	0.0048	Pb2+	0.0048
MW550-1	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0029	Pb2+	0.0029
MW550-2	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0039	Pb2+	0.0039
MW550-3	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0048	Pb2+	0.0048
MW650-1	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0029	Pb2+	0.0029
MW650-2	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0039	Pb2+	0.0039
MW650-3	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0048	Pb2+	0.0048
PS350-1	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0029	Pb2+	0.0029
PS350-2	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0039	Pb2+	0.0038
PS350-3	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0048	Pb2+	0.0048
PS450-1	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0029	Pb2+	0.0029
PS450-2	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0039	Pb2+	0.0038
PS450-3	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0048	Pb2+	0.0048
PS550-1	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0029	Pb2+	0.0029
PS550-2	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0039	Pb2+	0.0038
PS550-3	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0048	Pb2+	0.0048
PS650-1	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0029	Pb2+	0.0029
PS650-2	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0039	Pb2+	0.0039
PS650-3	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0048	Pb2+	0.0048
HWC600-1	8.4	84.7	0.103	0.1	0.259	1.87	256	45.7	22	5	0.1207	Pb2+	0.0472
HWC600-2	8.4	84.7	0.103	0.1	0.259	1.87	256	45.7	22	5	0.2413	Pb2+	0.0582
HWC600-3	8.4	84.7	0.103	0.1	0.259	1.87	256	45.7	22	5	0.6033	Pb2+	0.0574
BBH600/0.15-1	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	5	0.2	Pb2+	0.1456
BBH600/0.15-2	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	5	0.0667	Pb2+	0.0655

BBH600/0.15-3	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	5	0.04	Pb2+	0.0399
BBH600/0.15-4	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	5	0.02	Pb2+	0.02
BBH600/0.15-5	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	2	0.2	Pb2+	0.0532
BBH600/0.15-6	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	3	0.2	Pb2+	0.089
BBH600/0.15-7	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	4	0.2	Pb2+	0.1432
BBH600/0.15-8	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	6	0.2	Pb2+	0.1596
BBH600/0.15-9	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	7	0.2	Pb2+	0.1778
BBH600/0.15-10	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	8	0.2	Pb2+	0.1997
BBH600/0.15-11	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	9	0.2	Pb2+	0.2
BBH600/0.15-12	6.96	79.91	0.139	0.131	0.549	2.98	5.3	7.2	20	10	0.2	Pb2+	0.2
BBH600/2.0-1	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	5	0.2	Pb2+	0.0852
BBH600/2.0-2	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	5	0.0667	Pb2+	0.0597
BBH600/2.0-3	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	5	0.04	Pb2+	0.0392
BBH600/2.0-4	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	5	0.02	Pb2+	0.02
BBH600/2.0-5	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	2	0.2	Pb2+	0.0434
BBH600/2.0-6	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	3	0.2	Pb2+	0.0553
BBH600/2.0-7	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	4	0.2	Pb2+	0.0777
BBH600/2.0-8	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	6	0.2	Pb2+	0.0889
BBH600/2.0-9	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	7	0.2	Pb2+	0.1151
BBH600/2.0-10	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	8	0.2	Pb2+	0.1603
BBH600/2.0-11	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	9	0.2	Pb2+	0.1769
BBH600/2.0-12	6.78	79.91	0.139	0.131	0.549	2.98	2.46	5.62	20	10	0.2	Pb2+	0.1857
CI300-1	9.69	44.38	0.421	0.359	0.857	28.02	3.46	26.7	25	3	1.7792	Cd2+	0.2829
CI300-2	9.69	44.38	0.421	0.359	0.857	28.02	3.46	26.7	25	4	1.7792	Cd2+	0.5774
CI300-3	9.69	44.38	0.421	0.359	0.857	28.02	3.46	26.7	25	5	1.7792	Cd2+	0.6645
CI300-4	9.69	44.38	0.421	0.359	0.857	28.02	3.46	26.7	25	6	1.7792	Cd2+	0.6405
CI300-5	9.69	44.38	0.421	0.359	0.857	28.02	3.46	26.7	25	7	1.7792	Cd2+	0.6307
CI300-6	9.69	44.38	0.421	0.359	0.857	28.02	3.46	26.7	25	8	1.7792	Cd2+	0.7232
CI400-1	10.12	48.29	0.311	0.269	0.708	29.17	5.81	27.3	25	3	1.7792	Cd2+	0.3985
CI400-2	10.12	48.29	0.311	0.269	0.708	29.17	5.81	27.3	25	4	1.7792	Cd2+	0.8051

CI400-3	10.12	48.29	0.311	0.269	0.708	29.17	5.81	27.3	25	5	1.7792	Cd2+	0.8754
CI400-4	10.12	48.29	0.311	0.269	0.708	29.17	5.81	27.3	25	6	1.7792	Cd2+	0.8683
CI400-5	10.12	48.29	0.311	0.269	0.708	29.17	5.81	27.3	25	7	1.7792	Cd2+	0.8602
CI400-6	10.12	48.29	0.311	0.269	0.708	29.17	5.81	27.3	25	8	1.7792	Cd2+	0.967
CIB500-1	10.08	45.7	0.476	0.447	0.326	24.32	7.034	26.37	25	7	0.4448	Cd2+	0.44186
CIB500-2	10.08	45.7	0.476	0.447	0.326	24.32	7.034	26.37	25	7	1.3344	Cd2+	1.1191
CI500-1	10.32	51.69	0.214	0.199	0.332	32.27	7.73	34.6	25	3	1.7792	Cd2+	0.9697
CI500-2	10.32	51.69	0.214	0.199	0.332	32.27	7.73	34.6	25	4	1.7792	Cd2+	1.4723
CI500-3	10.32	51.69	0.214	0.199	0.332	32.27	7.73	34.6	25	5	1.7792	Cd2+	1.5185
CI500-4	10.32	51.69	0.214	0.199	0.332	32.27	7.73	34.6	25	6	1.7792	Cd2+	1.5105
CI500-5	10.32	51.69	0.214	0.199	0.332	32.27	7.73	34.6	25	7	1.7792	Cd2+	1.5568
CI500-6	10.32	51.69	0.214	0.199	0.332	32.27	7.73	34.6	25	8	1.7792	Cd2+	1.5835
CI600-1	10.47	52.61	0.165	0.14	0.299	34.76	10.4	38.8	25	3	1.7792	Cd2+	0.7571
CI600-2	10.47	52.61	0.165	0.14	0.299	34.76	10.4	38.8	25	4	1.7792	Cd2+	1.2961
CI600-3	10.47	52.61	0.165	0.14	0.299	34.76	10.4	38.8	25	5	1.7792	Cd2+	1.3682
CI600-4	10.47	52.61	0.165	0.14	0.299	34.76	10.4	38.8	25	6	1.7792	Cd2+	1.3442
CI600-5	10.47	52.61	0.165	0.14	0.299	34.76	10.4	38.8	25	7	1.7792	Cd2+	1.3317
CI600-6	10.47	52.61	0.165	0.14	0.299	34.76	10.4	38.8	25	8	1.7792	Cd2+	1.4243
TDB500-1	10.11	62.3	0.174	0.151	0.362	21.59	21.8	9.95	25	7	0.71168	Cd2+	0.42855
TDB500-2	10.11	62.3	0.174	0.151	0.362	21.59	21.8	9.95	25	7	0.4448	Cd2+	0.4309
TDB500-3	10.11	62.3	0.174	0.151	0.362	21.59	21.8	9.95	25	7	0.8896	Cd2+	0.5185
PAB500-1	9.15	60.12	0.168	0.134	0.427	24.58	5.901	7.41	25	7	0.1779	Cd2+	0.086476
PAB500-2	9.15	60.12	0.168	0.134	0.427	24.58	5.901	7.41	25	7	0.71168	Cd2+	0.1856
PAB500-3	9.15	60.12	0.168	0.134	0.427	24.58	5.901	7.41	25	7	1.3344	Cd2+	0.2349
PAB500-4	9.15	60.12	0.168	0.134	0.427	24.58	5.901	7.41	25	7	0.08896	Cd2+	0.04744
PAB500-5	9.15	60.12	0.168	0.134	0.427	24.58	5.901	7.41	25	7	0.4448	Cd2+	0.1538
PAB500-6	9.15	60.12	0.168	0.134	0.427	24.58	5.901	7.41	25	7	0.8896	Cd2+	0.2756
ZCB500-1	10.05	58.7	0.174	0.15	0.327	26.42	84.05	11.02	25	7	0.71168	Cd2+	0.2935
ZCB500-2	10.05	58.7	0.174	0.15	0.327	26.42	84.05	11.02	25	7	0.1779	Cd2+	0.1506
ZCB500-3	10.05	58.7	0.174	0.15	0.327	26.42	84.05	11.02	25	7	0.08896	Cd2+	0.07783
ZCB500-4	10.05	58.7	0.174	0.15	0.327	26.42	84.05	11.02	25	7	0.04448	Cd2+	0.03554
ZCB500-5	10.05	58.7	0.174	0.15	0.327	26.42	84.05	11.02	25	7	0.8896	Cd2+	0.3265
ZCB500-6	10.05	58.7	0.174	0.15	0.327	26.42	84.05	11.02	25	7	0.4448	Cd2+	0.25807
VZB500-1	9.39	75.1	0.12	0.106	0.324	11.02	48.99	9.08	25	7	0.8896	Cd2+	0.33155
VZB500-2	9.39	75.1	0.12	0.106	0.324	11.02	48.99	9.08	25	7	0.4448	Cd2+	0.13344
VZB500-3	9.39	75.1	0.12	0.106	0.324	11.02	48.99	9.08	25	7	0.1779	Cd2+	0.03922
VZB500-4	9.39	75.1	0.12	0.106	0.324	11.02	48.99	9.08	25	7	0.7117	Cd2+	0.1535

VZB500-5	9.39	75.1	0.12	0.106	0.324	11.02	48.99	9.08	25	7	0.8896	Cd2+	0.1759
PPB500-1	10.09	47.89	0.234	0.204	0.539	35.25	4.584	39.51	25	7	0.4448	Cd2+	0.44311
PPB500-2	10.09	47.89	0.234	0.204	0.539	35.25	4.584	39.51	25	7	1.3344	Cd2+	1.0613
BWH350-4	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0053	Cd2+	0.0005
BWH350-5	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0071	Cd2+	0.0006
BWH350-6	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0089	Cd2+	0.0005
BWH450-4	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0053	Cd2+	0.0053
BWH450-5	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0071	Cd2+	0.0071
BWH450-6	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0089	Cd2+	0.0089
BWH550-4	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0053	Cd2+	0.0037
BWH550-5	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0071	Cd2+	0.0025
BWH550-6	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0089	Cd2+	0.004
BWH650-4	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0053	Cd2+	0.0026
BWH650-5	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0071	Cd2+	0.003
BWH650-6	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0089	Cd2+	0.0045
CC350-4	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0053	Cd2+	0.0032
CC350-5	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0071	Cd2+	0.0022
CC350-6	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0089	Cd2+	0.0035
CC450-4	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0053	Cd2+	0.0046
CC450-5	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0071	Cd2+	0.0046
CC450-6	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0089	Cd2+	0.0053
CC550-4	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0053	Cd2+	0.004
CC550-5	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0071	Cd2+	0.0031
CC550-6	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0089	Cd2+	0.0063
CC650-4	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0053	Cd2+	0.003
CC650-5	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0071	Cd2+	0.0032
CC650-6	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0089	Cd2+	0.0043
MW350-4	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0053	Cd2+	0.0026
MW350-5	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0071	Cd2+	0.0027
MW350-6	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0089	Cd2+	0.0049
MW450-4	11.1	70.8	0.275	0.252	0.563	7.72	31.45	22.1	25	5.5	0.0053	Cd2+	0.005
MW450-5	11.1	70.8	0.275	0.252	0.563	7.72	31.45	22.1	25	5.5	0.0071	Cd2+	0.0063
MW450-6	11.1	70.8	0.275	0.252	0.563	7.72	31.45	22.1	25	5.5	0.0089	Cd2+	0.0058
MW550-4	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0053	Cd2+	0.0045
MW550-5	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0071	Cd2+	0.0058
MW550-6	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0089	Cd2+	0.0061
MW650-4	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0053	Cd2+	0.0041
MW650-5	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0071	Cd2+	0.0067
MW650-6	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0089	Cd2+	0.0076
PS350-4	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0053	Cd2+	0.0053
PS350-5	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0071	Cd2+	0.007
PS350-6	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0089	Cd2+	0.0088
PS450-4	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0053	Cd2+	0.0052

PS450-5	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0071	Cd2+	0.007
PS450-6	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0089	Cd2+	0.0087
PS550-4	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0053	Cd2+	0.0052
PS550-5	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0071	Cd2+	0.0068
PS550-6	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0089	Cd2+	0.0085
PS650-4	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0053	Cd2+	0.0052
PS650-5	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0071	Cd2+	0.0065
PS650-6	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0089	Cd2+	0.0072
RS300-1	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	2	0.8897	Cd2+	0.1279
RS300-2	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	3	0.8897	Cd2+	0.4497
RS300-3	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	4	0.8897	Cd2+	0.5235
RS300-4	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	5	0.8897	Cd2+	0.5159
RS300-5	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	0.8897	Cd2+	0.529
RS300-6	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	7	0.8897	Cd2+	0.5383
RS300-7	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	8	0.8897	Cd2+	0.5591
RS300-8	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	0.089	Cd2+	0.07
RS300-9	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	0.1779	Cd2+	0.1155
RS300-10	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	0.2669	Cd2+	0.1593
RS300-11	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	0.4448	Cd2+	0.2818
RS300-12	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	0.7117	Cd2+	0.4585
RS300-13	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	1.0676	Cd2+	0.6581
RS300-14	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	1.3345	Cd2+	0.7526
RS300-15	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	1.6014	Cd2+	0.7718
RS300-16	7.74	47.73	0.362	0.337	1.084	28.33	12.78	18.22	28	6	1.7794	Cd2+	0.7788
RS500-1	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	2	0.8897	Cd2+	0.1396
RS500-2	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	3	0.8897	Cd2+	0.5375
RS500-3	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	4	0.8897	Cd2+	0.6435
RS500-4	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	5	0.8897	Cd2+	0.6709
RS500-5	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	0.8897	Cd2+	0.6801
RS500-6	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	7	0.8897	Cd2+	0.6713
RS500-7	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	8	0.8897	Cd2+	0.6805
RS500-8	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	0.089	Cd2+	0.0683
RS500-9	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	0.1779	Cd2+	0.1278
RS500-10	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	0.2669	Cd2+	0.2135
RS500-11	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	0.4448	Cd2+	0.4113
RS500-12	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	0.7117	Cd2+	0.6038
RS500-13	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	1.0676	Cd2+	0.8033
RS500-14	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	1.3345	Cd2+	0.8926
RS500-15	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	1.6014	Cd2+	0.9311
RS500-16	10.08	46.84	0.255	0.233	0.62	37.67	24.61	18.08	28	6	1.7794	Cd2+	0.9364
RS700-1	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	2	0.8897	Cd2+	0.1099
RS700-2	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	3	0.8897	Cd2+	0.5943
RS700-3	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	4	0.8897	Cd2+	0.7468

RS700-4	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	5	0.8897	Cd2+	0.76
RS700-5	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	0.8897	Cd2+	0.7576
RS700-6	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	7	0.8897	Cd2+	0.7771
RS700-7	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	8	0.8897	Cd2+	0.7773
RS700-8	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	0.089	Cd2+	0.0823
RS700-9	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	0.1779	Cd2+	0.1453
RS700-10	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	0.2669	Cd2+	0.2485
RS700-11	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	0.4448	Cd2+	0.4288
RS700-12	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	0.7117	Cd2+	0.6668
RS700-13	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	1.0676	Cd2+	0.9416
RS700-14	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	1.3345	Cd2+	1.0869
RS700-15	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	1.6014	Cd2+	1.1184
RS700-16	10.69	43.29	0.26	0.243	0.402	42.33	41.12	17.91	28	6	1.7794	Cd2+	1.1341
WSP550-1	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	1	Ni2+	0.2385
WSP550-2	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.5	Ni2+	0.2164
WSP550-3	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.3333	Ni2+	0.1905
WSP550-4	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.25	Ni2+	0.1808
WSP550-5	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.2	Ni2+	0.1717
WSP550-6	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.1667	Ni2+	0.1592
WSP550-7	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.1429	Ni2+	0.1401
WSP550-8	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	5	0.125	Ni2+	0.1238
WSP550-9	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	2	1	Ni2+	0.0485
WSP550-10	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	3	1	Ni2+	0.1247
WSP550-11	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	4	1	Ni2+	0.2366
WSP550-12	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	6	1	Ni2+	0.2528
WSP550-13	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	7	1	Ni2+	0.249
WSP550-14	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	8	1	Ni2+	0.2673
WSP550-15	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	9	1	Ni2+	0.997
WSP550-16	9.94	68.26	0.093	0.076	0.369	21.25	26.4	7.15	20	10	1	Ni2+	0.9966
WSP700-1	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	5	1	Ni2+	0.3912
WSP700-2	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	5	0.5	Ni2+	0.3298
WSP700-3	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	5	0.3333	Ni2+	0.3312
WSP700-4	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	5	0.25	Ni2+	0.2492
WSP700-5	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	5	0.2	Ni2+	0.1997
WSP700-6	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	5	0.1667	Ni2+	0.1658
WSP700-7	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	2	1	Ni2+	0.0931
WSP700-8	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	3	1	Ni2+	0.248
WSP700-9	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	4	1	Ni2+	0.3876
WSP700-10	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	6	1	Ni2+	0.3889
WSP700-11	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	7	1	Ni2+	0.3887
WSP700-12	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	8	1	Ni2+	0.3953
WSP700-13	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	9	1	Ni2+	0.9985
WSP700-14	10.03	69.04	0.074	0.058	0.205	23.82	23.2	12.5	20	10	1	Ni2+	1

RH550-1	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	1	Ni2+	0.1242
RH550-2	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.5	Ni2+	0.1168
RH550-3	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.3333	Ni2+	0.1089
RH550-4	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.25	Ni2+	0.105
RH550-5	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.2	Ni2+	0.1016
RH550-6	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.1667	Ni2+	0.0986
RH550-7	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.1429	Ni2+	0.0964
RH550-8	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.125	Ni2+	0.094
RH550-9	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.1111	Ni2+	0.091
RH550-10	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	5	0.1	Ni2+	0.0874
RH550-11	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	2	1	Ni2+	0.0603
RH550-12	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	3	1	Ni2+	0.0805
RH550-13	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	4	1	Ni2+	0.1211
RH550-14	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	6	1	Ni2+	0.1275
RH550-15	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	7	1	Ni2+	0.129
RH550-16	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	8	1	Ni2+	0.1577
RH550-17	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	9	1	Ni2+	0.9798
RH550-18	9.71	48.69	0.056	0.038	0.306	47.93	20.1	4.22	20	10	1	Ni2+	0.9983
RH700-1	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	1	Ni2+	0.1863
RH700-2	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.5	Ni2+	0.1797
RH700-3	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.3333	Ni2+	0.1716
RH700-4	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.25	Ni2+	0.1638
RH700-5	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.2	Ni2+	0.1582
RH700-6	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.1667	Ni2+	0.1484
RH700-7	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.1429	Ni2+	0.1375
RH700-8	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.125	Ni2+	0.1238
RH700-9	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.1111	Ni2+	0.1104
RH700-10	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	5	0.1	Ni2+	0.0997
RH700-11	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	2	1	Ni2+	0.0608
RH700-12	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	3	1	Ni2+	0.1034
RH700-13	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	4	1	Ni2+	0.1835
RH700-14	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	6	1	Ni2+	0.1972
RH700-15	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	7	1	Ni2+	0.1972
RH700-16	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	8	1	Ni2+	0.2313
RH700-17	9.81	47.32	0.048	0.033	0.16	47.93	42	5.36	20	9	1	Ni2+	0.9983
BWH350-7	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.008	As3+	0.003
BWH350-8	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0107	As3+	0.0039
BWH350-9	9.23	70.1	0.272	0.261	0.76	4.02	11.4	11.2	25	5.5	0.0134	As3+	0.0039
BWH450-7	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.008	As3+	0.0029
BWH450-8	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0107	As3+	0.0035
BWH450-9	9.7	76.5	0.195	0.184	0.569	25.4	10.72	11.5	25	5.5	0.0134	As3+	0.0046
BWH550-7	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.008	As3+	0.0033
BWH550-8	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0107	As3+	0.0032

BWH550-9	10	82.8	0.131	0.121	0.399	5.8	17.02	10.1	25	5.5	0.0134	As3+	0.0047
BWH650-7	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.008	As3+	0.0028
BWH650-8	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0107	As3+	0.0034
BWH650-9	9.14	83.9	0.128	0.119	0.259	33.1	17.8	11.7	25	5.5	0.0134	As3+	0.0027
CC350-7	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.008	As3+	0.0027
CC350-8	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0107	As3+	0.0035
CC350-9	10	69.6	0.28	0.263	0.776	6.11	12.44	19.6	25	5.5	0.0134	As3+	0.0035
CC450-7	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.008	As3+	0.0027
CC450-8	10.1	76.3	0.201	0.186	0.524	8.4	14.42	11.6	25	5.5	0.0107	As3+	0.0032
CC550-7	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.008	As3+	0.0009
CC550-8	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0107	As3+	0.0008
CC550-9	10.4	81.7	0.146	0.133	0.353	8.81	37.11	23.8	25	5.5	0.0134	As3+	0.0008
CC650-7	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.008	As3+	0.0019
CC650-8	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0107	As3+	0.0024
CC650-9	10.5	82.1	0.149	0.136	0.246	13.2	47.63	25.4	25	5.5	0.0134	As3+	0.0029
MW350-7	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.008	As3+	0.0003
MW350-8	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0107	As3+	0.0004
MW350-9	10.2	67.9	0.306	0.278	0.801	7.52	16.56	23.3	25	5.5	0.0134	As3+	0.0003
MW550-7	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.008	As3+	0.0007
MW550-8	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0107	As3+	0.0008
MW550-9	10.6	77	0.202	0.183	0.376	9.82	58.03	19	25	5.5	0.0134	As3+	0.0008
MW650-7	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.008	As3+	0.0005
MW650-8	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0107	As3+	0.0003
MW650-9	10.6	80.1	0.172	0.155	0.244	9.77	24.46	21.8	25	5.5	0.0134	As3+	0.0005
PS350-7	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.008	As3+	0.0019
PS350-8	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0107	As3+	0.0025
PS350-9	10.4	64.3	0.365	0.343	0.806	7.06	14.03	26.5	25	5.5	0.0134	As3+	0.0032
PS450-7	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.008	As3+	0.0023
PS450-8	11.1	70.8	0.275	0.255	0.539	16.9	14.08	23.7	25	5.5	0.0107	As3+	0.0019
PS550-7	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.008	As3+	0.0021
PS550-8	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0107	As3+	0.0024
PS550-9	10.6	73.7	0.239	0.221	0.392	7.14	18.58	19.7	25	5.5	0.0134	As3+	0.0027
PS650-7	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.008	As3+	0.0017
PS650-8	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0107	As3+	0.0018
PS650-9	10.6	74.6	0.237	0.218	0.291	24.4	28.11	17.4	25	5.5	0.0134	As3+	0.002
NS600-1	8.63	88.2	0.07	0.066	0.286	1.57	465	8.44	25	6.5	0.089	Cd2+	0.0498
NS600-2	8.63	88.2	0.07	0.066	0.286	1.57	465	8.44	25	5	0.0635	Pb2+	0.0633
WS600-8	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	0.1779	Cd2+	0.1754
WS600-9	10.28	65.13	0.095	0.08	0.313	24.5	14.37	14.6	25	5	0.4826	Pb2+	0.4826
GS600-1	10	70.2	0.151	0.133	0.291	14.15	72	40.2	25	5	0.2542	Cd2+	0.2524
GS600-2	10	70.2	0.151	0.133	0.291	14.15	72	40.2	25	5	0.3016	Pb2+	0.301
GH600-1	9.98	74.9	0.13	0.108	0.308	10.45	77	18.7	25	5	0.1369	Cd2+	0.1369
GH600-2	9.98	74.9	0.13	0.108	0.308	10.45	77	18.7	25	5	0.4826	Pb2+	0.4628

PS600-1	7.36	81.8	0.106	0.097	0.295	4.77	443	12.1	25	8	0.089	Cd2+	0.039
PS600-2	7.36	81.8	0.106	0.097	0.295	4.77	443	12.1	25	5	0.0603	Pb2+	0.0602
SS500-1	8.81	17.46	0.524	0.449	0.483	74.21	25.424	76.75	25	3.17	0.0432	Cd2+	0.02706
SS500-2	8.81	17.46	0.524	0.449	0.483	74.21	25.424	76.75	25	2.73	0.08641	Cd2+	0.04308
SS500-3	8.81	17.46	0.524	0.449	0.483	74.21	25.424	76.75	25	2.38	0.21121	Cd2+	0.05729
SS500-4	8.81	17.46	0.524	0.449	0.483	74.21	25.424	76.75	25	2.32	0.40963	Cd2+	0.06012
SS500-5	8.81	17.46	0.524	0.449	0.483	74.21	25.424	76.75	25	2.32	0.64804	Cd2+	0.05456
SS500-6	8.81	17.46	0.524	0.449	0.483	74.21	25.424	76.75	25	2.38	0.83846	Cd2+	0.04503
SS600-1	9.54	18.4	0.364	0.3	0.22	77.9	20.268	30.81	25	3.17	0.0432	Cd2+	0.02375
SS600-2	9.54	18.4	0.364	0.3	0.22	77.9	20.268	30.81	25	2.73	0.08801	Cd2+	0.0271
SS600-3	9.54	18.4	0.364	0.3	0.22	77.9	20.268	30.81	25	2.38	0.21281	Cd2+	0.03689
SS600-4	9.54	18.4	0.364	0.3	0.22	77.9	20.268	30.81	25	2.32	0.41283	Cd2+	0.04362
SS600-5	9.54	18.4	0.364	0.3	0.22	77.9	20.268	30.81	25	2.32	0.64804	Cd2+	0.05125
SS600-6	9.54	18.4	0.364	0.3	0.22	77.9	20.268	30.81	25	2.38	0.84165	Cd2+	0.05561
SS700-1	11.11	16.92	0.352	0.304	0.151	81.53	32.167	50.34	25	3.17	0.0416	Cd2+	0.04084
SS700-2	11.11	16.92	0.352	0.304	0.151	81.53	32.167	50.34	25	2.73	0.08801	Cd2+	0.04809
SS700-3	11.11	16.92	0.352	0.304	0.151	81.53	32.167	50.34	25	2.38	0.21121	Cd2+	0.06724
SS700-4	11.11	16.92	0.352	0.304	0.151	81.53	32.167	50.34	25	2.32	0.40963	Cd2+	0.07338
SS700-5	11.11	16.92	0.352	0.304	0.151	81.53	32.167	50.34	25	2.32	0.64484	Cd2+	0.07714
SS700-6	11.11	16.92	0.352	0.304	0.151	81.53	32.167	50.34	25	2.38	0.84005	Cd2+	0.06109
SS800-1	12.18	16.2	0.195	0.169	0.025	83.93	48.499	126.62	25	3.17	0.0432	Cd2+	0.04309
SS800-2	12.18	16.2	0.195	0.169	0.025	83.93	48.499	126.62	25	2.73	0.08641	Cd2+	0.0864
SS800-3	12.18	16.2	0.195	0.169	0.025	83.93	48.499	126.62	25	2.38	0.21601	Cd2+	0.21046
SS800-4	12.18	16.2	0.195	0.169	0.025	83.93	48.499	126.62	25	2.32	0.40963	Cd2+	0.14852
SS800-5	12.18	16.2	0.195	0.169	0.025	83.93	48.499	126.62	25	2.32	0.64804	Cd2+	0.13855

SS800-6	12.18	16.2	0.195	0.169	0.025	83.93	48.499	126.62	25	2.38	0.83846	Cd2+	0.10857
SS900-1	12.15	15.92	0.144	0.115	0.085	88.07	67.603	247.51	25	3.17	0.0432	Cd2+	0.04249
SS900-2	12.15	15.92	0.144	0.115	0.085	88.07	67.603	247.51	25	2.73	0.08801	Cd2+	0.08801
SS900-3	12.15	15.92	0.144	0.115	0.085	88.07	67.603	247.51	25	2.38	0.21281	Cd2+	0.1927
SS900-4	12.15	15.92	0.144	0.115	0.085	88.07	67.603	247.51	25	2.32	0.41123	Cd2+	0.13364
SS900-5	12.15	15.92	0.144	0.115	0.085	88.07	67.603	247.51	25	2.32	0.64964	Cd2+	0.18058
SS900-6	12.15	15.92	0.144	0.115	0.085	88.07	67.603	247.51	25	2.38	0.84005	Cd2+	0.15944
MSP700-1	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	2	1	Ni2+	0.0664472
MSP700-2	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	3	1	Ni2+	0.167313
MSP700-3	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	4	1	Ni2+	0.220711
MSP700-4	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	1	Ni2+	0.223493
MSP700-5	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	6	1	Ni2+	0.223093
MSP700-6	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	7	1	Ni2+	0.248009
MSP700-7	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	8	1	Ni2+	0.361542
MSP700-8	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	9	1	Ni2+	0.990889
MSP550-1	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	3	1	Ni2+	0.0464651
MSP550-2	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	4	1	Ni2+	0.1589
MSP550-3	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	1	Ni2+	0.1744
MSP550-4	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	6	1	Ni2+	0.1783
MSP550-5	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	7	1	Ni2+	0.1744
MSP550-6	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	8	1	Ni2+	0.1783
MSP550-7	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	9	1	Ni2+	0.9922
SWP700-1	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	3	1	Ni2+	0.03653
SWP700-2	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	4	1	Ni2+	0.03797
SWP700-3	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	1	Ni2+	0.04333
SWP700-4	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	6	1	Ni2+	0.05251
SWP700-5	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	7	1	Ni2+	0.05788
SWP700-6	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	8	1	Ni2+	0.05153
SWP700-7	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	9	1	Ni2+	0.8663
SWP550-1	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	3	1	Ni2+	0.03174
SWP550-2	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	4	1	Ni2+	0.03614
SWP550-3	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	5	1	Ni2+	0.04052
SWP550-4	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	6	1	Ni2+	0.04103
SWP550-5	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	7	1	Ni2+	0.05321
SWP550-6	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	8	1	Ni2+	0.100591

SWP550-7	7.91	85.52	0.122	0.09	0.39	1.25	26.4	2.53	20	9	1	Ni2+	0.8628
MSP700-9	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	0.5	Ni2+	0.1828
MSP700-10	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	0.3333	Ni2+	0.17785
MSP700-11	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	0.25	Ni2+	0.1738
MSP700-12	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	0.2	Ni2+	0.16272
MSP700-13	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	0.16667	Ni2+	0.1535
MSP700-14	9.72	79.18	0.1013	0.07	0.19	11.55	37.2	10.8	20	5	0.1428	Ni2+	0.1423
MSP550-8	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	0.5	Ni2+	0.1715
MSP550-9	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	0.3333	Ni2+	0.1695
MSP550-10	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	0.25	Ni2+	0.1606
MSP550-11	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	0.2	Ni2+	0.1545
MSP550-12	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	0.16667	Ni2+	0.145
MSP550-13	9.77	75.41	0.1329	0.09	0.38	12.15	33.6	5.95	20	5	0.1428	Ni2+	0.1356
SWP700-8	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	0.5	Ni2+	0.03442
SWP700-9	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	0.3333	Ni2+	0.02777
SWP700-10	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	0.25	Ni2+	0.02355
SWP700-11	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	0.2	Ni2+	0.02464
SWP700-12	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	0.16667	Ni2+	0.02475
SWP700-13	8.44	90.21	0.0678	0.05	0.24	1.89	162.3	2.56	20	5	0.1428	Ni2+	0.02121
YD1BS3-500-1	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	2	1.16	Cd2+	0.00325
YD1BS3-500-2	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	3	1.16	Cd2+	0.01795
YD1BS3-500-3	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	4	1.16	Cd2+	0.06987
YD1BS3-500-4	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	5	1.16	Cd2+	0.11326
YD1BS3-500-5	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	6	1.16	Cd2+	0.13486
YD1BS3-500-6	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	1.16	Cd2+	0.14645
YD1BS3-500-7	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	8	1.16	Cd2+	0.16772
YD1BS3-500-8	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.235	Cd2+	0.08423
YD1BS3-500-9	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.447	Cd2+	0.09516
YD1BS3-500-10	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.62	Cd2+	0.12
YD1BS3-500-11	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.903	Cd2+	0.1372

YD1BS3-500-12	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.512	Cd2+	0.206
YD1BS3-500-13	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.356	Cd2+	0.219
YD1BS3-500-14	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.265	Cd2+	0.226
YD1BS3-500-15	10.33	63.16	0.034	0.021	0.517	31.37	4.157	48.44	25	7	0.212	Cd2+	0.209
YD1BS2-400-1	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	2	1.16	Cd2+	0.0014
YD1BS2-400-2	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	3	1.16	Cd2+	0.0647
YD1BS2-400-3	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	4	1.16	Cd2+	0.1515
YD1BS2-400-4	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	5	1.16	Cd2+	0.1549
YD1BS2-400-5	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	6	1.16	Cd2+	0.1508
YD1BS2-400-6	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	7	1.16	Cd2+	0.1538
YD1BS2-400-7	9.77	50.02	0.198	0.182	0.744	33.8	5.867	48.89	25	8	1.16	Cd2+	0.2083
YD3BS1-400-1	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	2	1.16	Cd2+	0.0016
YD3BS1-400-2	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	3	1.16	Cd2+	0.1227
YD3BS1-400-3	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	4	1.16	Cd2+	0.1344
YD3BS1-400-4	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	5	1.16	Cd2+	0.1402
YD3BS1-400-5	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	6	1.16	Cd2+	0.1552
YD3BS1-400-6	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	7	1.16	Cd2+	0.1556
YD3BS1-400-7	7.66	34.59	0.335	0.304	0.905	47.53	6.592	58.39	25	8	1.16	Cd2+	0.1717
YD3BS1-500-1	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	2	1.16	Cd2+	0.0013
YD3BS1-500-2	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	3	1.16	Cd2+	0.027
YD3BS1-500-3	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	4	1.16	Cd2+	0.038
YD3BS1-500-4	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	5	1.16	Cd2+	0.0403

YD3BS1-500-5	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	6	1.16	Cd2+	0.0477
YD3BS1-500-6	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	7	1.16	Cd2+	0.0535
YD3BS1-500-7	9.47	40.94	0.13	0.101	0.654	49.94	12.444	57.59	25	8	1.16	Cd2+	0.0567