

Table 1: Langmuir isotherm parameters for the adsorption of Pb(II) by metabolically inactive adsorbents.

Adsorbents	SS	BB	S&S	Cons	PB	KP
Best-fit values						
Q_{max} (mg/g)	141.20	208.50	193.80	220.40	153.20	217.70
K_L (L/mg)	3.68	0.2577	0.0583	0.0245	0.0221	0.0429
R_L	0.0027 – 0.00045	0.037 - 0.0064	0.145 - 0.028	0.290 - 0.064	0.475 - 0.114	0.318 - 0.062
Goodness of Fit						
R^2	0.6483	0.6441	0.6809	0.788	0.3504	0.5682
SSE	15116	52666	40210	26282	35371	61358
Sy.x	18.75	31.82	27.81	25.63	28.68	34.03
RMSE	18.54	31.52	27.54	25.32	28.35	34.03

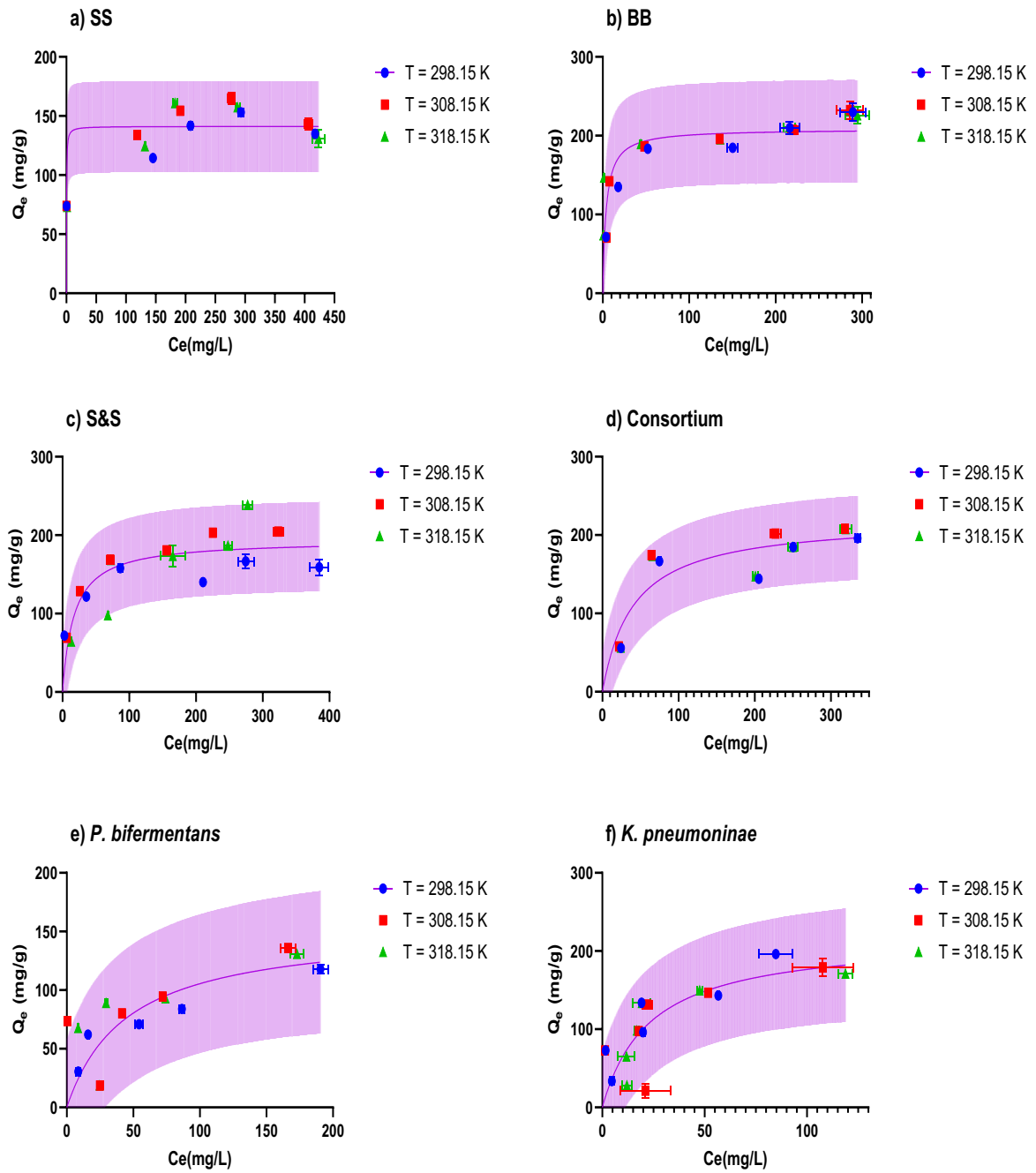


Figure 1: Langmuir isotherm for metabolically inactive (a) sewage sludge, (b) bran-based filler bacteria, (c) salt-and-starch filler bacteria, (d) consortium, (e) *P. bifermentans*, and (f) *K. pneumoniae* with a 95% prediction interval in the shaded area.

Table 2: Two – surface Langmuir isotherm parameters for the adsorption of Pb(II) by metabolically inactive adsorbents.

Adsorbents	SS	BB	S&S	Cons	PB	KP
Best-fit values						
$Q_{\max 1}$ (mg/g)	72.46	86.07	52.61	1.401×10^{-10}	45.82	46.13
$Q_{\max 2}$ (mg/g)	83.83	144.20	156.70	221.40	430.80	223.60
K_{L2} (L/mg)	0.02386	0.03542	0.02166	0.0248	0.001329	0.01491
Goodness of Fit						
Degrees of Freedom	42	51	51	39	42	51
R^2	0.8267	0.8327	0.737	0.7876	0.648	0.6641
SSE	7446	23818	33143	26332	19166	47731
Sy.x	13.31	21.61	25.49	25.98	21.36	30.59
RMSE	13.01	21.20	25.01	25.34	20.87	30.01

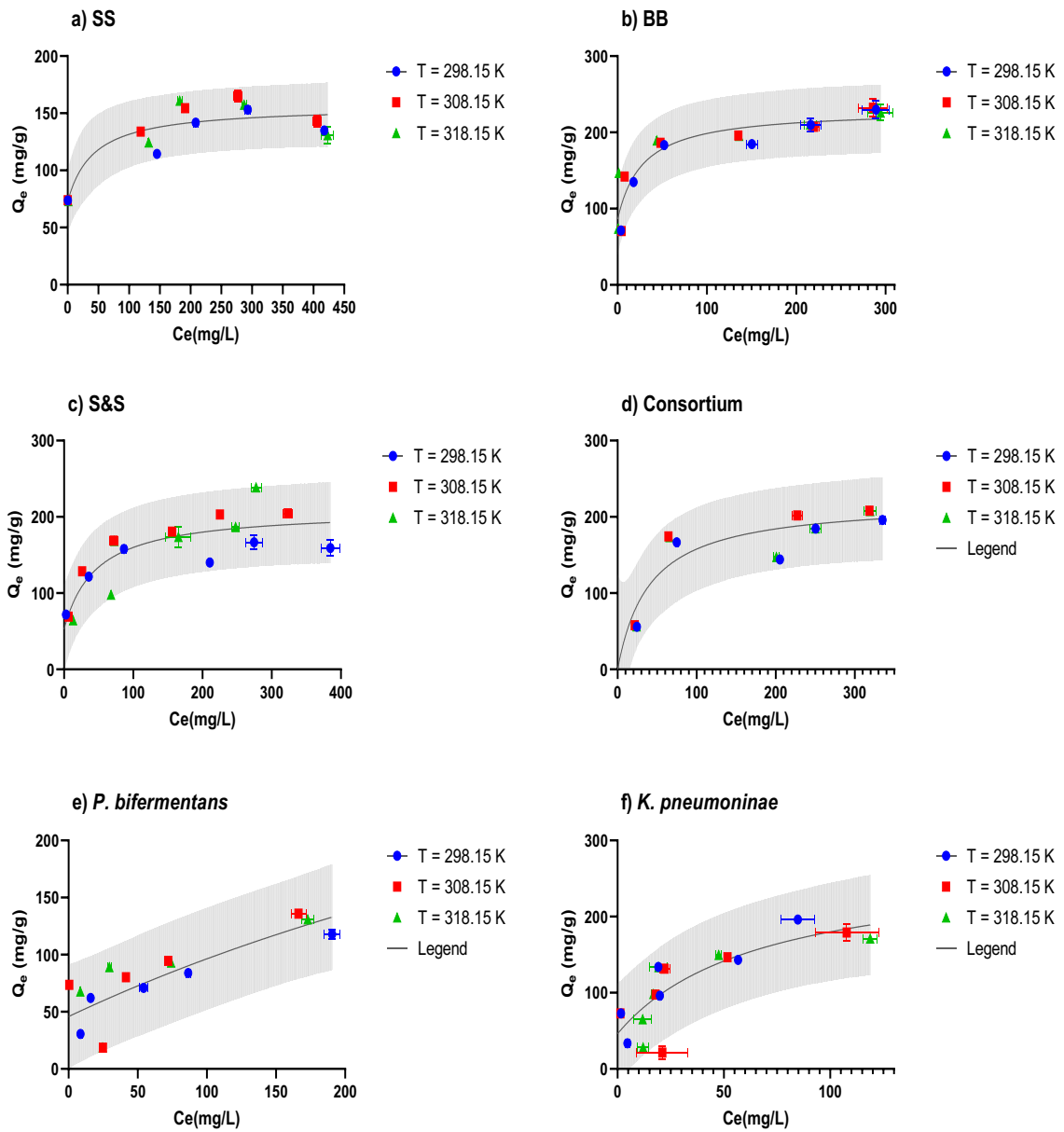


Figure 2: Two – surface Langmuir isotherm for metabolically inactive (a) sewage sludge, (b) bran-based filler bacteria, (c) salt-and-starch based filler bacteria, (d) consortium, (e) *P. bifementans*, and (f) *K. pneumoniae* with a 95% prediction interval in the shaded area.

Table 3: Freundlich isotherm parameters for the adsorption of Pb(II) by metabolically inactive adsorbents.

Adsorbents	SS	BB	S&S	Cons	PB	KP
Best-fit values						
K_f (L/mg)	82.96	89.76	54.55	33.39	21.17	34.39
n	10.11	6.172	4.516	3.295	2.973	2.804
Goodness of Fit						
Degrees of Freedom	43	52	52	40	43	52
R^2	0.8021	0.8264	0.7068	0.7032	0.4957	0.6275
SSE	8504	25686	36942	36805	27459	52938
Sy.x	14.06	22.23	26.65	30.33	25.27	31.91
RMSE	13.90	22.01	26.40	29.96	24.98	31.60

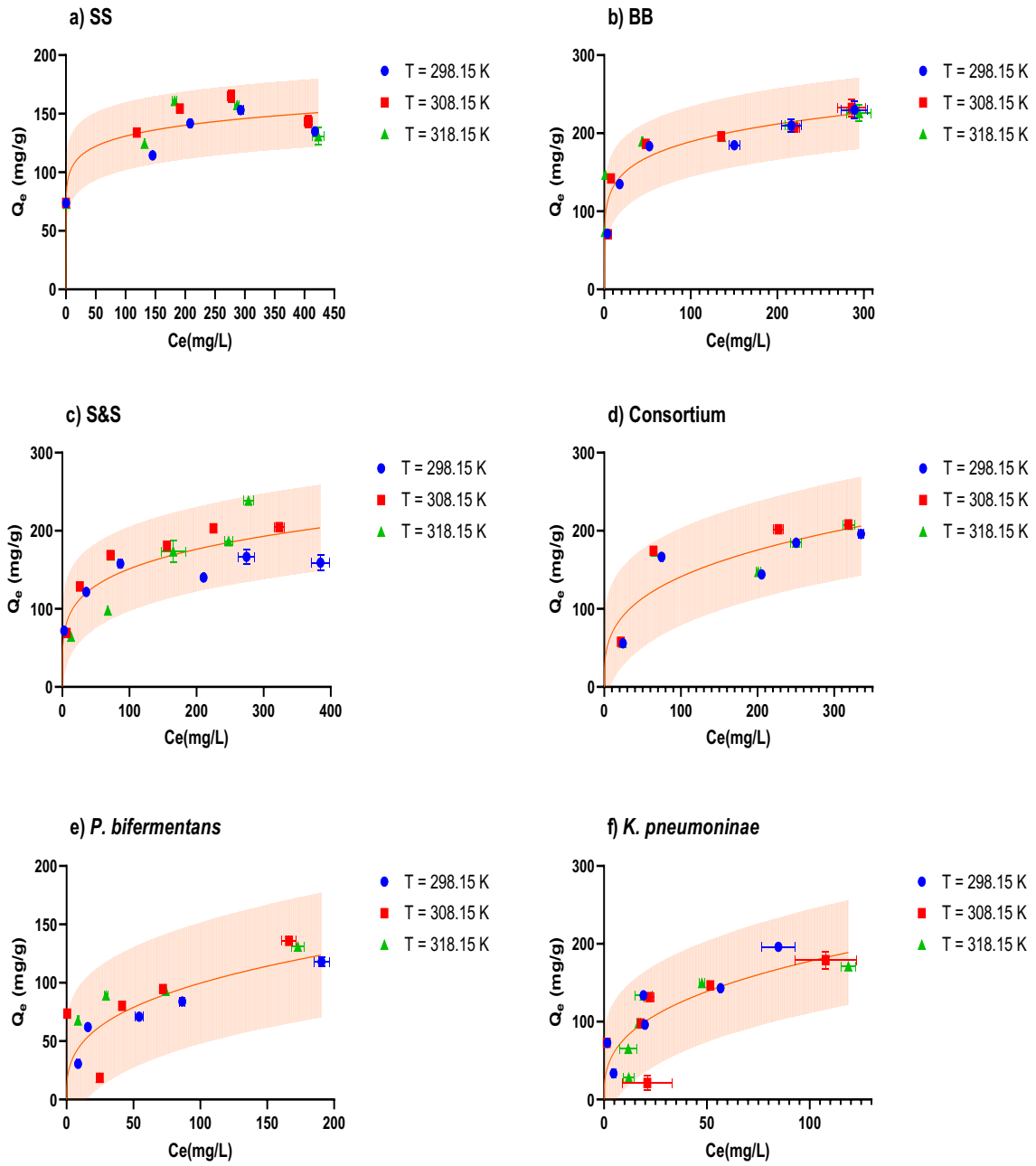


Figure 3: Freundlich isotherm for metabolically inactive (a) sewage sludge, (b) bran – based filler bacteria, (c) salt – and – starch-based filler bacteria, (d) consortium, (e) *P. bifermentans*, and (f) *K. pneumoniae* with a 95% prediction interval in the shaded area.