

SUPPLEMENTARY MATERIAL

Table S1

Relevant information from the selected articles that presented adsorption isotherm data

N° of Paper	By-product	Study temperature	Applied Models	T °C	GAB model parameters				Isosteric heat of sorption
					X_m	C	K	R ²	
1	Whey and Spent Coffee ground	17, 26, 45 °C.	▪ GAB	17	0.0865	1.1774	0.7800	-	$X_w = 0.031 \text{ g w/g dm}$; $q_{st} = -27.65 \text{ kJ/mol}$.
				26	0.0618	2.3780	0.8247	-	
				43	0.0439	8.1218	0.8761	-	
3	Orange bagasse	30, 45, 60 °C.	▪ GAB ▪ BET ▪ Halsey ▪ Smith ▪ Oswin ▪ Peleg	30	0.0456	5192.48	0.89	0.986	$X_w < 0.08 \text{ g w/g dm}$; $q_{st} = 42 \text{ KJ/mol}$. $X_w > 0.08 \text{ g w/g dm}$; $q_{st} = 0.8 \text{ KJ/mol}$.
				45	0.0379	5602.39	0.92	0.996	
				60	0.0327	5000.00	0.92	0.993	
4	Blueberry pomace	20, 35, 50 °C.	▪ GAB	20	0.0450	18.660	1.002	0.999	Not reported
				35	0.0420	17.860	1.024	0.992	
				50	0.0410	15.320	1.039	0.977	
5	Cassava pomace	20, 30, 40, 50, 55, 65, 70, 75, 80 °C	▪ GAB ▪ Peleg ▪ Halsey ▪ Henderson ▪ Oswin	20	0.0561	41.1140	0.9370	0.9999	Not reported
				30	0.0524	64.3790	0.9382	0.9999	
				40	0.0464	45.5290	0.9592	0.9999	
				50	0.0403	46.7159	0.9627	0.9999	
				55	0.0386	47.4302	0.9611	0.9998	
				65	0.0365	46.0861	0.9619	0.9999	
				70	0.0349	53.3952	0.9722	0.9989	
				80	0.0327	49.5185	0.9685	0.9989	
6	Buffalo whey	25, 35, 45 °C	▪ Halsey ▪ Smith ▪ Modified Mizrahi ▪ Oswin ▪ GAB ▪ Caurie	25	0.0512	11.0268	1.2390	-	$X_w = 0.031 \text{ g w/g dm}$; $q_{st} = 51.89 \text{ KJ/mol}$.
				35	0.0502	10.2131	1.0210	-	
				45	0.0421	14.3151	1.4028	-	
7	Orange Peel and Whey protein isolate (WPI)	30, 40, 50 °C.	▪ GAB	30	0.087	9.80	0.99	0.99	$X_w = 0.1 \text{ g w/g dm}$; $q_{st} = 7.9 \text{ KJ/mol}$.
				40	0.087	8.83	0.99	0.99	
				50	0.087	8.00	0.98	0.99	
8	Pineapple peel	40, 50, 60, 70 °C	▪ Ferro-Fontan ▪ GAB ▪ Halsey ▪ Henderson ▪ Oswin ▪ Peleg	40	0.063	1.745	1.011	0.9998	$X_w = 0.03 \text{ g w/g dm}$; $q_{st} = 11.486 \text{ KJ/mol}$.
				50	0.060	2.272	1.010	0.9998	
				60	0.086	0.828	0.917	0.9987	
				70	0.032	3.347	1.016	0.9928	
9	Yacon bagasse	20, 30, 40, 50 °C	▪ BET ▪ GAB ▪ Halsey ▪ Henderson ▪ Chung-Pfost ▪ Smith	20	0.012	16.829	0.931	0.979	Not reported
				30	0.010	14.414	0.955	0.982	
				40	0.007	18.139	0.993	0.940	
				50	0.006	9.075	1.004	0.973	

10	Pine seed	10, 20, 30, 40 °C	<ul style="list-style-type: none"> ▪ BET ▪ GAB ▪ Halsey ▪ Peleg ▪ Oswin ▪ Chung–Pfof ▪ Henderson ▪ Chirife ▪ Smith 	10 20 30 40	0.100 0.100 0.080 0.070	22.61 28.25 37.87 113.09	0.80 0.67 0.71 0.76	0.99 0.98 0.98 0.95	Not reported
11 ¹	Gluten from degermed corn	20, 30, 40 °C	<ul style="list-style-type: none"> ▪ BET ▪ GAB ▪ Oswin ▪ Halsey ▪ Peleg ▪ Chirife ▪ Smith ▪ Langmuir ▪ Chen 	20 30 40	0.0444 0.0577 0.0361	1.96 0.08 4.26	0.780 0.540 0.800	0.998 0.999 0.998	Not reported
11 ²	Fiber from degermed corn	20, 30, 40 °C	<ul style="list-style-type: none"> ▪ BET ▪ GAB ▪ Oswin ▪ Halsey ▪ Peleg ▪ Chirife ▪ Smith ▪ Langmuir ▪ Chen 	20 30 40	0.0371 0.0666 0.0651	1.8*10 ⁸ 6.51 5.59	0.140 0.780 0.770	0.953 0.999 0.998	Not reported
13 ¹	Fine Wheat bran	10, 20, 30, 35 °C	<ul style="list-style-type: none"> ▪ BET ▪ GAB ▪ D'Arcy y Watt ▪ Chung-Pfof ▪ GAB modificado ▪ Halsey ▪ Henderson modificada ▪ Oswin 			Not reported			Not reported
13 ²	Wheat bran 200 µm	10, 20, 30, 35 °C	<ul style="list-style-type: none"> ▪ BET ▪ GAB ▪ D'Arcy y Watt ▪ Chung-Pfof ▪ GAB modificado ▪ Halsey ▪ Henderson modificada ▪ Oswin 			Not reported			Not reported
14	Pine seed	10, 20, 30 °C	<ul style="list-style-type: none"> ▪ Peleg 			Not reported			Not reported
15	Papaya seed	20, 30, 40, 50, 60, 70, 80 °C	<ul style="list-style-type: none"> ▪ GAB ▪ Peleg 	20 30	0.1759 0.1614	7.81 * 10 ⁴⁴ 1.10 * 10 ⁴⁵	0.8336 0.8461	0.982 0.975	X _w = 0.30 g w/g dm; q _{st} = 0.56 KJ/mol.

			<ul style="list-style-type: none"> ▪ Oswin ▪ Henderson ▪ Halsey ▪ Smith ▪ Iglesias y Chirife ▪ White y Eiring 	40	0.1621	$1.83 \cdot 10^{44}$	0.8402	0.977	
				50	0.1608	$4.39 \cdot 10^{44}$	0.8357	0.971	
				60	0.1623	$7.32 \cdot 10^{44}$	0.8423	0.975	
				70	0.1569	$9.66 \cdot 10^{44}$	0.8405	0.979	
				80	0.1535	$1.00 \cdot 10^{45}$	0.8364	0.977	
16	Grape seed	10, 25, 40 °C	<ul style="list-style-type: none"> ▪ Oswin ▪ Halsey ▪ Henderson ▪ Chung-Pfost 			Not reported			Not reported
17	Whey	15, 25, 35, 45 °C	<ul style="list-style-type: none"> ▪ GAB 	15	0.1376	9.943	0.894	0.997	
				25	0.1779	8.865	0.821	0.999	
				35	0.2397	6.114	0.718	0.998	
				45	0.3204	5.323	0.593	0.996	Not reported
18	Defatted sesame seeds	15, 25, 35, 45 °C	<ul style="list-style-type: none"> ▪ Halsey ▪ Oswin ▪ Chung-Pfost ▪ Henderson modificado 			Not reported			Not reported
19	Sesame seed hull	15, 30, 45 °C	<ul style="list-style-type: none"> ▪ Halsey ▪ Oswin ▪ Chung-Pfost ▪ Henderson modificado 			Not reported			Not reported
20	Caltrop skin	20, 30, 40 °C	<ul style="list-style-type: none"> ▪ GAB ▪ Halsey 	20	0.0561	3.071	0.862	0.991	$X_w = 0.07 \text{ g w/g dm; } q_{st} = 26.094 \text{ KJ/mol.}$
				30	0.0509	2.383	0.881	0.989	
				40	0.0409	3.212	0.909	0.968	
22	Mango peel	20, 26, 33, 38, 44 °C	<ul style="list-style-type: none"> ▪ GAB ▪ BET ▪ Halsey ▪ Iglesias y Chirife ▪ Oswin 			Not reported			Not reported
24	Jamun seed	25, 35, 45 °C	<ul style="list-style-type: none"> ▪ Peleg ▪ GAB ▪ Oswin ▪ Henderson ▪ Halsey 	25	0.1112	5.2765	0.8781	0.9874	$X_w = 0.05 \text{ g w/g dm; } q_{st} = 11.02 \text{ KJ/mol.}$
				35	0.0955	2.9603	0.9584	0.9848	$X_w = 0.30 \text{ g w/g dm; } q_{st} = 0.27 \text{ KJ/mol.}$
				45	0.0733	3.9545	1.0452	0.9798	
25	Radish leaf	15, 25, 35, 45 °C	<ul style="list-style-type: none"> ▪ Smith ▪ GAB ▪ BET ▪ Polynomial ▪ Hailwood y Horbin 	15	0.0651	4.9116	0.888	0.985	$X_w = 0.04 \text{ g w/g dm; } q_{st} = 60.261 \text{ KJ/mol.}$
				25	0.0712	3.200	0.784	0.995	$X_w = 0.16 \text{ g w/g dm; } q_{st} = 52.549 \text{ KJ/mol.}$
				35	0.0733	2.288	0.730	0.996	
				45	0.0532	2.451	0.777	0.994	

GAB model parameters: X_m (monolayer value, dry basis), C and k (constants related to the interaction energy between water molecules in the first and multilayers); 11¹: Degerminated corn gluten; 11²: Degerminated corn fiber; 13¹: Fine wheat bran; 13²: Wheat bran 200 μ ; Not reported: the project did not present the requested content; WPI: whey protein isolate.

Table S2

Relevant information from the selected articles that presented desorption isotherm data

N° of Paper	By-product	Study temperature	Applied Models	T °C	GAB model parameters				Isosteric heat of sorption					
					X _m	C	K	R ²						
2	Lemon peel	20, 30, 40, 50 °C	▪ GAB	20	0.064	4.88	1.0	0.989	X _w = 0.065 g w/g dm; q _{st} = 133,6 kJ / kg.					
			▪ Oswin	30	0.069	1.37	1.0	0.997						
			▪ Henderson	40	0.062	2.30	1.0	0.990						
			▪ Halsey	50	0.049	4.50	1.0	0.988						
			▪ Ratti											
6	Buffalo whey	25, 35, 45 °C	▪ Halsey	25	0.0516	13.2099	0.9678	-	X _w = 0.031 g w/g dm; q _{st} = 53.55 KJ/mol.					
			▪ Smith											
			▪ Modified Mizrahi							35	0.0558	11.5092	0.9741	-
			▪ Oswin							45	0.0444	12.0083	0.8993	-
			▪ GAB											
11 ¹	Gluten from degermed corn	20, 30, 40 °C	▪ Caurie	20	0.0508	13.9	0.650	0.993	Not reported					
			▪ BET											
			▪ GAB											
			▪ Oswin											
			▪ Halsey							30	0.0683	3.73	0.530	0.998
			▪ Peleg							40	0.0541	9.6	0.620	0.999
			▪ Chirife											
▪ Smith														
11 ²	Fiber from degermed corn	20, 30, 40 °C	▪ Langmuir	20	0.0392	3.38*10 ³	0.110	0.992	Not reported					
			▪ BET											
			▪ GAB											
			▪ Oswin											
			▪ Halsey							30	0.1020	14.2	0.540	0.999
			▪ Peleg							40	0.0865	12.7	0.650	0.999
			▪ Chirife											
▪ Smith														
12 ¹	Fermented Cashew shell	20, 30, 40, 50 °C.	▪ Langmuir	20	0.360	0.49	0.94	0.9696	Not reported					
			▪ Chen											
			▪ GAB											
			▪ BET							30	0.100	0.7	1.12	0.9995
			▪ BET							40	0.070	5.67	1.04	0.9940
▪ triparametric	50	0.090	15.43	0.96	0.9734									
12 ²	Not Fermented Cashew shell	20, 30, 40, 50 °C.	▪ GAB	20	0.240	2.46	1.09	0.9750	Not reported					
			▪ BET											
			▪ BET							30	0.350	0.77	1.02	0.9902
			▪ BET							40	0.150	2.27	1.06	0.9856
			▪ triparametric							50	0.120	6.22	1.00	0.9913
16	Grape seed	10, 25, 40 °C	▪ Oswin						Not reported					
			▪ Halsey											
			▪ Henderson											
			▪ Chung-Pfost											
21	Banana peel	20, 30, 40, 50, 60, 70 °C	▪ GAB						X _w = 0.06 g w/g dm; q _{st} = 96.68 KJ/mol.					
			▪ BET											
22	Mango peel	20, 26, 33, 38, 44 °C	▪ GAB						Not reported					
			▪ BET											

			<ul style="list-style-type: none"> ▪ Halsey ▪ Iglesias & Chirife ▪ Oswin 						
23	Shrimp shell	20, 30, 40, 50, 60 °C	<ul style="list-style-type: none"> ▪ GAB ▪ Oswin ▪ Halsey ▪ Smith 	20 30 40 50 60	0.200 0.191 0.158 0.133 0.129	16.27 12.56 11.71 8.23 2.98	0.95 0.93 0.95 0.96 0.95	0.996 0.995 0.996 0.996 0.997	Not reported

GAB model parameters: X_m (monolayer value, dry basis), C and k (parameters related to the interaction energy between water molecules in the first and multilayers); 11¹: Degerminated corn gluten; 11²: Degerminated corn fiber; 12¹: Fermented cashew nut residue; 12²: Unfermented cashew nut residue; Not reported: The article did not reported the requested data.

Table S3

Classification of the type II isotherm based on the type of major component present in each powder by-product.

Major Compound	By-product	Sorption Isotherm type	N° of paper
Starch	Cassava bagasse	Adsorption	5
	Pino seed	Adsorption	10
	Pino seed	Adsorption	14
Fiber	Fermented Cashew shell	Desorption	12
	Not Fermented Cashew shell	Desorption	12
	Wheat bran 200 μ m	Adsorption	13
	Fine Wheat bran	Adsorption	13
	Sesame seed hull	Adsorption	19
	Caltrop skin	Adsorption	20
	Radish leaf	Adsorption	25
Protein	Buffalo whey	Adsorption/Desorption	6
	Orange Peel and Whey protein isolate (WPI)	Adsorption	7
	Whey	Adsorption	17
	Defatted sesame seeds	Adsorption	18
Lípidos	Papaya seed	Adsorption	15
	Grape seed	Adsorption/Desorption	16
Chitosan	Shrimp shell	Adsorption	23

Table S4

Classification of the type III isotherm based on the type of major component present in each powder by-product

Major Compound	By-product	Sorption Isotherm type	N° of paper
Azúcares	Yacon bagasse	Adsorption Isotherm	9
Fiber	Orange bagasse	Adsorption Isotherm	3
	Pineapple peel	Adsorption Isotherm	8
	Fiber from degermed corn	Adsorption and Desorption Isotherm	11
	Banana peel	Desorption Isotherm	21
	Mango peel	Adsorption and Desorption Isotherm	22
Fiber/Essential oil	Lemon peel	Desorption Isotherm	2
Fiber/ Anthocyanin	Blueberry pomace	Adsorption Isotherm	4
	Jamun seed	Adsorption Isotherm	24
Protein	Whey and Spent Coffee ground	Adsorption Isotherm	1
	Gluten from degermed corn	Adsorption and Desorption Isotherm	11

Table S4

General information about sorption isotherms, including collected and modeled GAB model parameters

N° of paper	Major compound	Isotherm classification (Brunauer)	Sorption isotherm type	T °C	X _m	C	K	R ²
1	Protein	Type III	Adsorption isotherm	17	0.0865	1.1774	0.78	-
1	Protein	Type III	Adsorption isotherm	26	0.0618	2.378	0.8247	-
1	Protein	Type III	Adsorption isotherm	43	0.0439	8.1218	0.8761	-
2	Fiber/essential oil	Type III	Desorption isotherm	20	0.064	4.88	1	-
2	Fiber/essential oil	Type III	Desorption isotherm	30	0.069	1.37	1	-
2	Fiber/essential oil	Type III	Desorption isotherm	40	0.062	2.3	1	-
2	Fiber/essential oil	Type III	Desorption isotherm	50	0.049	4.5	1	-
3	Fiber	Type III	Adsorption isotherm	30	0.0456	5192.48	0.89	0.986
3	Fiber	Type III	Adsorption isotherm	45	0.0379	5602.39	0.92	0.996
3	Fiber	Type III	Adsorption isotherm	60	0.0327	5000	0.92	0.993
4	Fiber/Anthocyanin	Type III	Adsorption isotherm	20	0.045	18.66	1.002	0.999
4	Fiber/Anthocyanin	Type III	Adsorption isotherm	35	0.042	17.86	1.024	0.992
4	Fiber/Anthocyanin	Type III	Adsorption isotherm	50	0.041	15.32	1.039	0.977
5	Starch	Type II	Adsorption isotherm	20	0.0561	41.114	0.937	0.9999
5	Starch	Type II	Adsorption isotherm	30	0.0524	64.379	0.9382	0.9999
5	Starch	Type II	Adsorption isotherm	40	0.0464	45.529	0.9592	0.9999
5	Starch	Type II	Adsorption isotherm	50	0.0403	46.7159	0.9627	0.9999
5	Starch	Type II	Adsorption isotherm	55	0.0386	47.4302	0.9611	0.9998
5	Starch	Type II	Adsorption isotherm	65	0.0365	46.0861	0.9619	0.9999
5	Starch	Type II	Adsorption isotherm	70	0.0349	53.3952	0.9722	0.9989
5	Starch	Type II	Adsorption isotherm	75	0.034	45.4132	0.9645	0.9999
5	Starch	Type II	Adsorption isotherm	80	0.0327	49.5185	0.9685	0.9989
6	Protein	Type II	Adsorption isotherm	25	0.0512	11.0268	1.239	-
6	Protein	Type II	Adsorption isotherm	35	0.0502	10.2131	1.021	-
6	Protein	Type II	Adsorption isotherm	45	0.0421	14.3151	1.4028	-
6	Protein	Type II	Desorption isotherm	25	0.0516	13.2099	0.9678	-
6	Protein	Type II	Desorption isotherm	35	0.0558	11.5092	0.9741	-
6	Protein	Type II	Desorption isotherm	45	0.0444	12.0083	0.8993	-
7	Protein	Type II	Adsorption isotherm	30	0.087	9.80	0.99	0.99
7	Protein	Type II	Adsorption isotherm	40	0.087	8.83	0.99	0.99
7	Protein	Type II	Adsorption isotherm	50	0.087	8.00	0.98	0.99
8	Fiber	Type III	Adsorption isotherm	40	0.063	1.745	1.011	0.9998
8	Fiber	Type III	Adsorption isotherm	50	0.06	2.272	1.01	0.9998
8	Fiber	Type III	Adsorption isotherm	60	0.086	0.828	0.917	0.9987
8	Fiber	Type III	Adsorption isotherm	70	0.032	3.347	1.016	0.9928
9	Sugars	Type III	Adsorption isotherm	20	0.012	16.829	0.931	0.979
9	Sugars	Type III	Adsorption isotherm	30	0.01	14.414	0.955	0.982
9	Sugars	Type III	Adsorption isotherm	40	0.007	18.139	0.993	0.94
9	Sugars	Type III	Adsorption isotherm	50	0.006	9.075	1.004	0.973
10	Starch	Type II	Adsorption isotherm	10	0.1	22.61	0.8	0.99
10	Starch	Type II	Adsorption isotherm	20	0.1	28.25	0.67	0.98
10	Starch	Type II	Adsorption isotherm	30	0.08	37.87	0.71	0.98

10	Starch	Type II	Adsorption isotherm	40	0.07	113.09	0.76	0.95
11 ¹	Protein	Type III	Adsorption isotherm	20	0.0444	1.96	0.78	0.998
11 ¹	Protein	Type III	Adsorption isotherm	30	0.0577	0.08	0.54	0.999
11 ¹	Protein	Type III	Adsorption isotherm	40	0.0361	4.26	0.8	0.998
11 ¹	Protein	Type III	Desorption isotherm	20	0.0508	13.9	0.65	0.993
11 ¹	Protein	Type III	Desorption isotherm	30	0.0683	3.73	0.53	0.998
11 ¹	Protein	Type III	Desorption isotherm	40	0.0541	9.6	0.62	0.999
11 ²	Fiber	Type III	Adsorption isotherm	20	0.0371	1.8*10 ⁸	0.14	0.953
11 ²	Fiber	Type III	Adsorption isotherm	30	0.0666	6.51	0.78	0.999
11 ²	Fiber	Type III	Adsorption isotherm	40	0.0651	5.59	0.77	0.998
11 ²	Fiber	Type III	Desorption isotherm	20	0.0392	3.38*10 ³	0.11	0.992
11 ²	Fiber	Type III	Desorption isotherm	30	0.102	14.2	0.54	0.999
11 ²	Fiber	Type III	Desorption isotherm	40	0.0865	12.7	0.65	0.999
12 ¹	Fiber	Type II	Desorption isotherm	20	0.36	0.49	0.94	0.9696
12 ¹	Fiber	Type II	Desorption isotherm	30	0.1	0.7	1.12	0.9995
12 ¹	Fiber	Type II	Desorption isotherm	40	0.07	5.67	1.04	0.994
12 ¹	Fiber	Type II	Desorption isotherm	50	0.09	15.43	0.96	0.9734
12 ²	Fiber	Type II	Desorption isotherm	20	0.24	2.46	1.09	0.975
12 ²	Fiber	Type II	Desorption isotherm	30	0.35	0.77	1.02	0.9902
12 ²	Fiber	Type II	Desorption isotherm	40	0.15	2.27	1.06	0.9856
12 ²	Fiber	Type II	Desorption isotherm	50	0.12	6.22	1	0.9913
13*	Fiber	Type II	Adsorption isotherm	10	0.0914	18.34	0.75	0.997
13*	Fiber	Type II	Adsorption isotherm	20	0.0886	12.772	0.744	0.996
13*	Fiber	Type II	Adsorption isotherm	30	0.0894	9.007	0.731	0.999
13*	Fiber	Type II	Adsorption isotherm	35	0.0905	6.544	0.719	0.999
13*	Fiber	Type II	Adsorption isotherm	10	0.0918	8.367	0.778	0.997
13*	Fiber	Type II	Adsorption isotherm	20	0.0685	9.617	0.837	0.931
13*	Fiber	Type II	Adsorption isotherm	30	0.1001	3.454	0.741	0.997
13*	Fiber	Type II	Adsorption isotherm	35	0.1242	2.165	0.685	0.996
14*	Starch	Type II	Adsorption isotherm	10	0.086	89.26	0.784	0.976
14*	Starch	Type II	Adsorption isotherm	20	0.0708	101.27	0.82	0.955
14*	Starch	Type II	Adsorption isotherm	30	0.0634	55.21	0.838	0.964
15*	Lipids	Type II	Adsorption isotherm	20	0.1761	3.23 *10 ⁵	0.8339	0.982
15*	Lipids	Type II	Adsorption isotherm	30	0.1614	1.44*10 ⁶	0.846	0.975
15*	Lipids	Type II	Adsorption isotherm	40	0.1625	2.87*10 ⁵	0.8407	0.977
15*	Lipids	Type II	Adsorption isotherm	50	0.1651	2.77*10 ⁵	0.828	0.971
15*	Lipids	Type II	Adsorption isotherm	60	0.163	6.69*10 ⁵	0.8343	0.975
15*	Lipids	Type II	Adsorption isotherm	70	0.1584	1.07*10 ⁶	0.8373	0.979
15*	Lipids	Type II	Adsorption isotherm	80	0.1541	2.42*10 ⁵	0.8337	0.977
16*	Lipids	Type II	Adsorption isotherm	10	0.0412	52.43	0.9	0.986
16*	Lipids	Type II	Adsorption isotherm	25	0.0530	17.023	0.555	0.99
16*	Lipids	Type II	Adsorption isotherm	40	0.0476	17.353	0.623	0.979
16*	Lipids	Type II	Desorption isotherm	10	0.0613	10.567	0.778	0.959
16*	Lipids	Type II	Desorption isotherm	25	0.0478	22.225	0.688	0.98
16*	Lipids	Type II	Desorption isotherm	40	0.0607	12.805	0.497	0.968
17	Protein	Type II	Adsorption isotherm	15	0.1376	9.943	0.894	0.997
17	Protein	Type II	Adsorption isotherm	25	0.1779	8.865	0.821	0.999
17	Protein	Type II	Adsorption isotherm	35	0.2397	6.114	0.718	0.998

17	Protein	Type II	Adsorption isotherm	45	0.3204	5.323	0.593	0.996
18*	Protein	Type II	Adsorption isotherm	15	0.0452	2.724	0.987	0.985
18*	Protein	Type II	Adsorption isotherm	25	0.0531	1.622	0.98	0.983
18*	Protein	Type II	Adsorption isotherm	35	0.0515	2.766	0.989	0.982
18*	Protein	Type II	Adsorption isotherm	45	0.0417	13.48	1.023	0.994
19*	Fiber	Type II	Adsorption isotherm	15	0.5803	0.0038	1.145	0.96
19*	Fiber	Type II	Adsorption isotherm	30	0.5525	0.0309	1.087	0.999
19*	Fiber	Type II	Adsorption isotherm	45	0.536	0.0475	1.068	0.999
20	Fiber	Type II	Adsorption isotherm	20	0.0561	3.071	0.862	0.991
20	Fiber	Type II	Adsorption isotherm	30	0.0509	2.383	0.881	0.989
20	Fiber	Type II	Adsorption isotherm	40	0.0409	3.212	0.909	0.968
21*	Fiber	Type III	Desorption isotherm	20	0.0642	1.007	1.095	0.999
21*	Fiber	Type III	Desorption isotherm	30	0.0729	0.994	1.083	0.999
21*	Fiber	Type III	Desorption isotherm	40	0.0683	0.903	1.082	0.999
21*	Fiber	Type III	Desorption isotherm	50	0.0494	1.012	1.092	0.999
21*	Fiber	Type III	Desorption isotherm	60	0.0428	1.059	1.100	0.999
21*	Fiber	Type III	Desorption isotherm	70	0.0393	0.972	1.079	0.999
22*	Fiber	Type III	Adsorption isotherm	20	0.0801	0.737	0.995	0.997
22*	Fiber	Type III	Adsorption isotherm	26	0.0897	0.384	0.966	0.995
22*	Fiber	Type III	Adsorption isotherm	33	0.0318	2.531	1.06	0.998
22*	Fiber	Type III	Adsorption isotherm	38	0.0927	0.469	0.935	0.991
22*	Fiber	Type III	Adsorption isotherm	44	0.0324	1.657	1.061	0.997
22*	Fiber	Type III	Desorption isotherm	20	0.0906	1.026	0.999	0.999
22*	Fiber	Type III	Desorption isotherm	26	0.0856	0.951	0.993	0.999
22*	Fiber	Type III	Desorption isotherm	33	0.0728	0.884	1.012	0.996
22*	Fiber	Type III	Desorption isotherm	38	0.0355	2.519	1.066	0.998
22*	Fiber	Type III	Desorption isotherm	44	0.0314	2.501	1.071	0.997
23	Chitosan	Type II	Adsorption isotherm	20	0.200	16.27	0.95	0.996
23	Chitosan	Type II	Adsorption isotherm	30	0.191	12.56	0.93	0.995
23	Chitosan	Type II	Adsorption isotherm	40	0.158	11.71	0.95	0.996
23	Chitosan	Type II	Adsorption isotherm	50	0.133	8.23	0.96	0.996
23	Chitosan	Type II	Adsorption isotherm	60	0.129	2.98	0.95	0.997
24	Fiber/Anthocyanins	Type III	Adsorption isotherm	25	0.1112	5.2765	0.8781	0.9874
24	Fiber/Anthocyanins	Type III	Adsorption isotherm	35	0.0955	2.9603	0.9584	0.9848
24	Fiber/Anthocyanins	Type III	Adsorption isotherm	45	0.0733	3.9545	1.0452	0.9798
25	Fiber	Type II	Adsorption isotherm	15	0.0651	4.9116	0.888	0.985
25	Fiber	Type II	Adsorption isotherm	25	0.0712	3.2	0.784	0.995
25	Fiber	Type II	Adsorption isotherm	35	0.0733	2.288	0.73	0.996
25	Fiber	Type II	Adsorption isotherm	45	0.0532	2.451	0.777	0.994

X_m (monolayer value, dry basis), C and k (GAB parameters); #*: # article with GAB model parameters calculated in this study.

11¹: Degerminated corn gluten; 11²: Degerminated corn fiber; 12¹: Fermented cashew nut residue; 12²: Unfermented cashew nut residue;