Table 1 Database of trace element concentration in the dissolved load (<0.2 μm) of rivers. All concentrations in ppb (μg L^{-1}) except for Ra (fg L^{-1}) and Os (pg L^{-1}). DOC, TSS, TDS are Dissolved Organic Carbon (mg L^{-1}), total suspended solid (mg L^{-1}), and total dissolved solutes (mg L^{-1}). Water discharge and surface are in m^3 s^{-1} and $10^3 Km^2$, respectively.

Element	*References*	*pH*	*DOC*	*TSS*	*TDS*	*Discharge*	*Surface area*	*Ag*	*A*	*As*
Africa										
Oubangui	1	6.81		30	36.1	3,500	475		12	
Zaire	1	5.98		31	48.68	17,000	1,660		46	
Kasai	1	6.35		17		11,000	900		51	
Congo at Brazzaville	1, 2, 3	6.4		21		39,100	3,500		76	
Niger	2,4	7.00	1.5	43	44	907	141		76	
Douna	2,4									
Nyong	5	5.60	23	5	22	340	29		215	
Sanaga	6	7.43	3.82				133		29	0.17
Nyong	6	5.88	14.1			340	29		159	0.11
Mengong	6	4.62	24						480	0.11
Europe										
Seine at Paris, Fr.	7			40	400	260	44		16	2.71
Garonne River Fr.	8, 9			128	400	540	55			
Rhine in Alsace, Fr.	10	8.01	1.95						<50	
Vosges Stream, Fr.	10	7.10	2.03						76	
Harz Mountains, Ger.	11	5.10							1,080	0.37
Kalix River, Sweden, 1991	12, 45	6.95	3.4			296	24		27	
Kalix River, 1977 May	12					296	24			
Idel river	13	6.85	12.3			2	1		44	0.21
N. America										
St. Lawrence	2, 14, 15, 16, 46	8.00		11	183	10,700	1,020		15	0.91
SLRS 4	17								53	0.70
Ottawa	14								67	0.45
Mistassini, Can.	14	5.50	26	5		195	10		174	0.12
Mackenzie	2, 14, 18, 19	8.10	5.8	300	226	9,000	1,680		18	0.50
Peel, Can.	14	8.10	12.9	250	167	690	71		22	0.35
Indin River, Can.	14	6.70			12	8	2		28	0.14
Beatton, Can.	14	7.20		810	68				91	0.80
Upper Yukon, Can.	2, 14	7.70							25	0.62
Skeena, Can.	14	7.50	4.48	60	53	962	42		33	0.21
Fraser River, Can.	19, 20	7.34	3.39	175	93	3630	238		19	0.52
Columbia River	8, 19	7.85		64	115	5941	670			
Californian Streams	21									
Connecticut	22		3.16		70	540	25			
Hudson River	22, 23, 46	7.00			126	621	35	0.004		
Upper Mississippi	24	7.70		462						
Missouri	24, 25			2,332						
Ohio	25	7.70		177						
Illinois	25	8.20		102						
Mississippi at Mouth	3, 15, 19, 22, 25, 46	7.80		860	280	18,400	2,980			

(*Continued*)

Table 1 (Continued)

Element	*References*	*pH*	*DOC*	*TSS*	*TDS*	*Discharge*	*Surface area*	*Ag*	*A*	*As*
S. America										
Amazon, mean value	**3, 15, 26, 27, 28, 29, 46, 48**	**6.89**		**182**	**44**	**205,000**	**6,100**		**9.4**	
Amazon <0.2 μm	**19,30**	**7.10**	**5.05**	**182**	**44**	**205,000**	**6,100**		**6.2**	
Amazon <100 kDa	30		2.96						0.8	
Amazon <5 kDa	30		1.11						0.5	
Negro < 0.2 μm	26	4.85							113.9	
Negro < 0.2 μm	30	5.87	7.17						97.0	
Solimoes < 0.2 μm	26	7.10							171.4	
Solimoes < 0.2 μm	30	7.66	2.76						5.8	
Madeira < 0.2 μm	26	6.73							2.6	
Madeira < 0.2 μm	30	7.54	11.1						4.3	
Trompetas < 0.2 μm	26	6.10							39.2	
Trompetas < 0.2 μm	30	6.54	1.85						7.9	
Tapajos < 0.2 μm	26	6.68							15.2	
Tapajos < 0.2 μm	30	7.45	1.48						4.0	
Rio Beni at Riberalta	31					8,262	243			
Mamore	31					8,392	599			
Rio Beni at Rurrenabaque	31					2,025	68			
Orinoco < 0.2 μm	19, 27, 29, 30, 46, 48	6.51	5.42	132	25	35,900	1100		61.8	
Orinoco < 10 kDa	27, 30		4.3						5.6	
Caroni at Cuidad Bolivar	19, 27, 29, 30, 32	5.58	3.71						16.1	
Asia										
Ob	33		7.4–9.95	40	126	13,500	2,990			
Yenisei	33		4	23	112	19,800	2,500			
Lena	2, 19, 34	7.60		30	112	19,100	1,200			0.15
Changjiang	2, 3, 9, 19, 27, 35, 36, 37, 3	7.80		520	221	29,400	1,808			0.83
Huanghe	2, 15, 38, 39, 40, 47	8.30		27,000	460	1300	752			2.00
Xijiang	2, 15, 47	7.70		190	161	11,500	437			
Ganges	19, 29, 41, 42, 43, 46, 47, 4	7.70		1,100	182	15,600	1,050			
Mekong	2, 15, 47	7.80		321	263	14,800	795			
Brahmaputra	9, 19, 41, 42, 46, 47, 48	7.40		1,060	101	16,100	580			
Indus	9, 41, 44, 47	7.80		2,780	302	2880	960			
Shinano, Jpn.	44, 47	7.11				475	11			
World average									**32**	**0.62**
Riverine flux (kt y^{-1})									1,200	23

Element	*B*	*Be*	*Ba*	*Cd*	*Ce*	*Co*	*Cr*	*Cs*	*Cu*	*Dy*	*Er*	*Eu*	*Fe*	*Ga*
Africa														
Oubangui			17		0.4920	0.077	0.533	0.008		0.043	0.029	0.0160	60	
Zaire			24.8		0.6610	0.075	0.386	0.0026		0.053	0.033	0.0220	202	
Kasai					0.4520	0.0580	0.4	0.009		0.038	0.025	0.0140	108	
Congo at Brazzaville	3.1		20		0.6890	0.0594	0.501	0.016		0.006	0.033	0.0170	179	

Niger	3.2		30		0.1710	0.0400	0.450	0.0100	0.630				105	
Douna														
Nyong			18		1.3200	0.3637				0.119	0.071	0.0255	241	
Sanaga			27		0.1780	0.0590			0.952	0.015	0.016		31	
Nyong			19		0.8060	0.2530			2.030	0.086	0.055		174	0.0220
Mengong			24		0.8274	0.4307			1.397	0.059	0.027		614	0.1087
Europe														
Seine at Paris, Fr.	25.0		32	0.0600	0.0600	0.1800	11.46		3.53				302	
Garonne River Fr.					0.0810						0.004	0.0016		
Rhine in Alsace, Fr.					0.0096					0.002	0.001	0.0003		
Vosges Stream, Fr.					0.0930					0.020	0.012	0.0087		
Harz Mountains, Ger.		0.61	13	0.4200		0.2600	<0.85		0.820					
Kalix River, Sweden, 1991					0.2170								525	
Kalix River, 1977 May														
Idel river	39.0		5	0.0200	0.2430	0.0840	1.07	0.0112	0.456	0.013	0.008	0.0039	666	0.0088
N. America														
St. Lawrence	24.8		23	0.0114	0.0600	0.0632		0.0052	0.936	0.005	0.004	0.0030	111	
SLRS 4	6.0	0.008	13	0.0140	0.3600	0.0480	0.37	0.0090	1.930	0.024	0.013	0.0080	108	0.0119
Ottawa	3.3		15	0.0207	0.5599	0.0746		0.0061	1.144	0.040	0.023	0.0112	112	
Mistassini, Can.			8	0.0873	1.1771	0.1221		0.0070	1.578	0.036	0.022	0.0120	170	
Mackenzie	11.8		56	0.1838	0.0266	0.0682	0.375	0.0066	1.609	0.003		0.0023	119	
Peel, Can.			62	0.0347	0.0310	0.1426	0.294	0.0037	1.043	0.001	0.003	0.0019	152	
Indin River, Can.			3		0.1305	0.0158			0.841				50	
Beatton, Can.			47	0.1206	0.4750	0.1515	0.741	0.0028	2.594	0.072	0.056	0.0290	739	
Upper Yukon, Can.			50	0.0906	0.0311	0.0616	0.241	0.0049	1.306	0.009		0.0010	102	
Skeena, Can.			13	0.0194	0.0637	0.0794		0.0006	1.077				52	0.0083
Fraser River, Can.			15		0.0600	0.0800	2.1		1.040	0.009		0.0030	47	
Columbia River					0.0583							0.0016		
Californian Streams														0.001–0.006
Connecticut					0.0258					0.004	0.003	0.0009	10	
Hudson River					0.0621					0.013	0.008	0.0026		
Upper Mississippi			73						1.850					
Missouri			80						2.010					
Ohio			32						1.741					
Illinois			59						1.984					
Mississippi at Mouth	37.8		62		0.0074				1.60–2.24	0.004	0.004	0.0007		
S. America														
Amazon, mean value	**6.1**	**0.0095**	**21**	**0.1781**	**0.2180**	**0.1766**	**0.717**		**1.463**	**0.033**	**0.018**	**0.0104**		**0.0174**
Amazon <0.2 μm			**28**		**0.0680**					**0.011**	**0.006**	**0.0027**	**43**	**0.0217**
Amazon <100 kDa			26		0.0200					0.004	0.002	0.0007	23	
Amazon < 5 kDa			17		0.0067					0.000	0.000		13	
Negro < 0.2 μm			6		0.4150	0.1241			0.399	0.023	0.015	0.0088		0.0050
Negro < 0.2 μm			7		0.5853					0.030	0.018	0.0078	117	
Solimoes < 0.2 μm	3.8		28		0.3630	0.1643			1.542	0.044	0.028	0.0150	351	0.0390
Solimoes < 0.2 μm			29		0.0528					0.007	0.004	0.0019	53	
Madeira < 0.2 μm	3.4		18		0.1380	0.0176			0.863	0.024	0.013	0.0083	18	0.0025

(*Continued*)

Table 1 (Continued)

Element	*B*	*Be*	*Ba*	*Cd*	*Ce*	*Co*	*Cr*	*Cs*	*Cu*	*Dy*	*Er*	*Eu*	*Fe*	*Ga*
Madeira < 0.2 μm			32		0.0074					0.001	0.001		26	0.0169
Trompetas < 0.2 μm	1.5		14		0.9080	0.1274			0.269	0.044	0.028	0.0105	87	0.0059
Trompetas < 0.2 μm			15		0.1300					0.007	0.005	0.0017	30	
Tapajos < 0.2 μm			21		0.1150	0.0195			0.227	0.012	0.008	0.0033		0.0033
Tapajos < 0.2 μm			18		0.0277					0.003	0.002	0.0007	11	0.0178
Rio Beni at Riberaita			30	0.0081					1.517					
Mamore			4	0.0091					1.997					
Rio Beni at Rurrenabaque			23	0.0011					0.710					
Orinoco < 0.2 μm		0.009	8		0.5207			0.007–0.013		0.056	0.031	0.0140	142	0.1176
Orinoco < 10 kDa			8		0.1703					0.020	0.012	0.0047	15	0.1143
Caroni at Cuidad Bolivar	2.4	0.0135	7		0.1443			0.006		0.012	0.006	0.0032	16	0.1027
Asia														
Ob				0.0006–0.0008					1.8–2.4				24–36	
Yenisei				0.0012–0.0018					1.39–1.91				14–17.8	
Lena	4.7			0.0089					0.755				24.3	
Changjiang	12.5			0.0033	0.1150				1.66			0.0050	31	
Huanghe	150.0			0.0011–0.0055		0.0059–0.0295			0.96–1.6				1.4–25	
Xijiang	6.0													
Ganges	17.8	0.00056												
Mekong	15.0													
Brahmaputra	20.9													
Indus					0.0024					0.001	0.001	0.0002		
Shinano, Jpn.					0.0834					0.012	0.007	0.003		
World average	**10.2**	**0.0089**	**23**	**0.08**	**0.2620**	**0.148**	**0.7**	**0.011**	**1.48**	**0.03**	**0.02**	**0.0098**	**66**	**0.03**
Riverine flux (kt yr^{-1})	380	0.33	860.2	3	9.8	5.5	26	0.4	55	1.1	0.75	0.37	2470	1.1

Element	*Gd*	*Ge*	*Hf*	*Ho*	*La*	*Li*	*Lu*	*Mn*	*Mo*	*Nb*	*Nd*	*Ni*	*Os (pg L^{-1})*	*P*
Africa														
Oubangui	0.0510		0.0042	0.0090	0.249		0.0040				0.277	1.15		
Zaire	0.0630		0.0057	0.0110	0.349		0.0040				0.360	1.02		
Kasai	0.0470		0.0038	0.0080	0.189		0.0030				0.241	0.41		
Congo at Brazzaville	0.0660	0.0066	0.0067	0.0120	0.319		0.0045				0.350	0.934	6.7	
Niger			0.0030		0.091			0.50			0.085	0.29	5.3	
Douna														
Nyong	0.1343			0.0199	0.538		0.0080	29.72			0.690			
Sanaga	0.0240				0.09			0.44			0.084	0.70		
Nyong	0.0940	0.0065		0.0165	0.349		0.0105	22.61			0.505	1.18		
Mengong	0.0551	0.0799		0.0116	0.348		0.0053	20.02			0.416	5.04		

Europe														
Seine at Paris, Fr.					0.030			3.76			0.030	5.06	41.8	
Garonne River Fr.	0.0088			0.0016	0.047		0.0006				0.038			
Rhine in Alsace, Fr.	0.0025			0.0004	0.005		0.0004				0.005			
Vosges Stream, Fr.	0.0037			0.0041	0.153		0.0014				0.245			
Harz Mountains, Ger.					0.480	2.00		48.00				0.92		
Kalix River, Sweden, 1991					0.155			9.40						
Kalix River, 1977 May														
Idel river														
	0.0190	0.0082		0.0027	0.151	0.80	0.0015	22.80	0.112		0.141	0.35		2.67
N. America														
St. Lawrence	0.0059	0.0031	0.0031	0.0013	0.029		0.0006	6.28	1.292	0.0021	0.038	1.33	22.8	
SLRS 4	0.0342	0.0100		0.0047	0.287	0.54	1.9000	3.37	0.210		0.269	0.82		
Ottawa	0.0593	0.0086	0.0034	0.0078	0.411		0.0037	14.86	0.199	0.0045	0.411	0.83		
Mistassini, Can.	0.0618	0.0058	0.0070	0.0071	0.635		0.0025	11.31	0.039	0.0107	0.547	0.47		
Mackenzie	0.0019			0.0005	0.002	4.60		1.28	1.067	0.0012	0.019	1.83	25.5	
Peel, Can.	0.0116			0.0020	0.002		0.0024	4.54	1.078	0.0019	0.004	2.68		
Indin River, Can.					0.099	0.91		1.89			0.091	0.64		1.82
Beaton, Can.	0.1599	0.0049	0.1106	0.0101	0.090			2.98	0.301	0.0069	0.042	5.14		
Upper Yukon, Can.	0.0136	0.0196		0.0010	0.001	0.64	0.0006	2.29	1.055	0.0019	0.007	10.39	24.7	
Skeena, Can.		0.0014			0.051	0.35		5.37	0.418		0.081	0.91		
Fraser River, Can.	0.0110				<0.05	1.05		5.40	1.330		0.044	1.86		
Columbia River	0.0065	0.0138		0.0009	0.030	1.46	0.0007				0.023			
Californian Streams														
Connecticut	0.0047				0.021		0.0008				0.020			
Hudson River	0.0190						0.0007				0.060			
Upper Mississippi								0.41	1.114			1.66		
Missouri								0.44	1.613			1.53		
Ohio								0.46	1.258			1.12		
Illinois								0.7	2.314			2.92		
Mississippi at Mouth														
	0.0042	0.0219			0.008	10	0.0006	0.66–1.82	1.63–2.69		0.011	1.12–1.77		
S. America														
Amazon, mean value	**0.0356**	**0.0048**		**0.0064**	**0.106**	**0.91**	**0.0020**	**50.73**	**0.175**		**0.136**	**0.74**	**4.6**	
Amazon <0.2 μm	**0.0123**	**0.0074**		**0.0021**	**0.032**	**2.46**	**0.0009**	**3.31**			**0.042**			
Amazon <100 kDa	0.0043	0.0076		0.0007	0.010		0.0003	2.90			0.013			
Amazon < 5 kDa	0.0007	0.0061		0.0001	0.006			2.00			0.003			
Negro <0.2 μm	0.0350			0.0050	0.151		0.0016	8.24			0.172	0.21		
Negro <0.2 μm	0.0432	0.0046		0.0061	0.208		0.0023	7.35			0.211			14.45
Solimoes <0.2 μm	0.0490			0.0093	0.166	1.02	0.0037	14.56			0.226	0.92		
Solimoes <0.2 μm	0.0089	0.0093		0.0017	0.050		0.0006	6.54			0.032			
Madeira <0.2 μm	0.0260			0.0053	0.054	1.18	0.0014				0.100	0.57		
Madeira <0.2 μm	0.0018	0.0041		0.0003	0.005		0.0001	3.29			0.005			
Trompetas <0.2 μm	0.0485			0.0093	0.266	0.41	0.0037	8.62			0.309	0.12		
Trompetas <0.2 μm	0.0102	0.0049		0.0016	0.044		0.0008	1.36			0.053			2.57
Tapajos <0.2 μm	0.0114			0.0020	0.228		0.0009	1.34			0.072	0.22		
Tapajos <0.2 μm	0.0037	0.0053		0.0007	0.016		0.0004	0.46			0.018			
Rio Beni at Riberaita								4.13	0.380			0.91		

(*Continued*)

Table 1 (Continued)

Element	*Gd*	*Ge*	*Hf*	*Ho*	*La*	*Li*	*Lu*	*Mn*	*Mo*	*Nb*	*Nd*	*Ni*	*Os (pg L^{-1})*	*P*
Mamore								113.52	0.240			1.11		
Rio Beni at Rurrenabaque								2.37	0.218			0.79		
Orinoco $<$0.2 μm	0.0737			0.0107	0.177	0.32	0.0043	6.82			0.289			11.09
Orinoco $<$ 10 kDa	0.0256			0.0040	0.049		0.0018	5.24			0.094			6.10
Caroni at Cuidad Boliver	0.0147			0.0021	0.067	0.16	0.0009	5.57			0.078		3.3	6.61
Asia														
Ob												1.24–1.42		
Yenisei												0.52–0.55		
Lena						1.33						0.38	8.2	
Changjiang		0.0122			0.005	3.44	0.0020	1.00			0.070	0.15	13.9	
Huanghe								0.55–2.2				0.30–0.59	42.1	
Xijiang													8.3	
Ganges						3.47							32.0	
Mekong													17.2	
Brahmaputra						2.61							9.9	
Indus					0.003		0.0002				0.003		11.2	
Shinano, Jpn.					0.037		0.0016				0.050			
World average	**0.04**	**0.0068**	**0.0059**	**0.0071**	**0.12**	**1.84**	**0.0024**	**34**	**0.42**	**0.0017**	**0.152**	**0.801**	**9.0**	
Riverine flux (kt yr^{-1})	1.5	0.25	0.22	0.27	4.5	69	0.09	1270	16	0.063	5.7	30	0.33.10–3	

Element	*Pb*	*Pd*	*Pr*	*Ra (fg L^{-1})*	*Re*	*Rb*	*Sb*	*Sc*	*Se*	*Sm*	*Sr*	*Ta*	*Tb*	*Th*	*Ti*
Africa															
Oubangui			0.069			2.7		0.055		0.0600	15.0		0.0070	0.042	
Zaire			0.093			3.9		0.067		0.0820	21.0		0.0100	0.056	
Kasai			0.052			2.7		0.062		0.0470	10.5		0.0060	0.023	
Congo at Brazzaville			0.089			3.1		0.087		0.0620	11.5		0.0097	0.065	
Niger	0.039					3.86					26.4			0.013	
Douna															
Nyong			0.179			4.18				0.1362	9.7		0.0178	0.121	
Sanaga			0.024			6.16					30.3			0.012	0.231
Nyong			0.114			3.68				0.1210	12.4			0.111	0.199
Mengong			0.096			0.73				0.0780	17.9			0.137	5.808
Europe															
Seine at Paris, Fr.	0.220					1.40		1.340			227.0			0.010	
Garonne River Fr.			0.005							0.0082			0.0012		
Rhine in Alsace, Fr.			0.001							0.0012			0.0003		
Vosges Stream, Fr.			0.049							0.0500			0.0046		
Harz Mountains, Ger.	3.800					5.90	0.190				20.0				
Kalix River, Sweden, 1991															
Kalix River, 1977 May															
Idel river	0.119		0.037			0.96	0.027			0.0240	16.8		0.0025	0.022	1.070

N. America														
St. Lawrence	0.233		0.009	2		1.04	0.205			0.0067	177.2		0.0010	0.004	0.509
SLRS 4	0.084	0.021	0.069			1.53	0.270		0.230	0.0574	28.2		4.3000		1.460
Ottawa	0.105		0.104			1.55	0.057			0.0705	50.7		0.0073	0.027	1.854
Mistassini, Can.	0.113		0.149	48		1.14	0.023			0.0783	11.4		0.0085	0.041	2.278
Mackenzie	0.771		0.012			0.66	0.121			0.0055	237.8	0.0009		0.634	0.423
Peel, Can.	1.129		0.012			0.36	0.120			0.0149	154	0.0029	0.0025	0.588	0.574
Indin River, Can.		0.001	0.023			1.77	0.005			0.0152	10.5				0.112
Beatton, Can.	0.269		0.132			0.30	0.102			0.1849	62.7	0.1484	0.0289	1.054	1.200
Upper Yukon, Can.	0.818		0.006			0.90	0.150			0.0056	162.2		0.0010	0.988	0.768
Skeena, Can.		0.028	0.015			0.20	0.044			0.0230	78.4				0.372
Fraser River, Can.	0.078		0.011			0.91	0.053	0.141		0.0110	108.0				0.680
Columbia River			0.01							0.0435			0.0012		
Californian Streams															
Connecticut										0.0042					
Hudson River				4–31						0.0119					
Upper Mississippi	0.008					1.24									
Missouri	0.006					0.93									
Ohio	0.007					0.87									
Illinois	0.035					0.94									
Mississippi at Mouth	0.011–0.016		5–30			1.17				0.003					
S. America															
Amazon, mean value	**0.064**		**0.031**	**9–31**	**0.00020**	**1.49**	**0.061**		**0.051**	**0.0349**	**25.8**		**0.0043**		
Amazon <0.2 μm			**0.009**			**1.89**		**1.540**		**0.0100**	**51.2**		**0.0017**	**0.006**	
Amazon <100 kDa			0.003			1.79		1.580		0.0041	47.2		0.0007		
Amazon < 5 kDa			0.001			1.29		1.550			31.3				
Negro < 0.2 μm	*0.170*		*0.047*			*1.13*				*0.0380*	*3.6*		*0.0040*		
Negro < 0.2 μm			0.054			1.73		0.900		0.0390	4.2		0.0056	0.053	
Solimoes < 0.2 μm	*0.151*		*0.052*			1.59				0.0520	45.7		0.0067	0.010	
Solimoes < 0.2 μm			0.007			1.69		1.770		0.0082	61.5		0.0014	0.002	
Madeira < 0.2 μm	*0.005*		*0.022*			*1.34*				*0.0311*	*19.2*		*0.0048*		
Madeira < 0.2 μm			0.001			1.94		1.510		0.0014	55.5		0.0002	0.001	
Trompetas < 0.2 μm	0.052		*0.080*			*2.95*				*0.0596*	*6.7*		*0.0061*	*0.121*	
Trompetas < 0.2 μm			0.013			4.04		1.260		0.0094	9.6		0.0012	0.016	
Tapajos < 0.2 μm	*0.061*		*0.017*			*2.75*				*0.0181*	*9.9*		*0.0015*		
Tapajos < 0.2 μm			0.004			2.08		1.410		0.0040	6.5		0.0005	0.002	
Rio Beni at Riberaita						1.01					42.9				
Mamore						1.44					31.4				
Rio Beni at Rurrenabaque						0.90					48.3				
Orinoco < 0.2 μm			0.062	12–17	0.00083	1.50		0.560	0.032–0.050	0.0682	8.0		0.0098	0.073	
Orinoco < 10 kDa			0.020			1.43		0.620		0.0234	7.5		0.0035	0.026	
Caroni at Cuidad Bolivar			0.019			1.13		0.530	0.019–0.020	0.0153	2.9		0.0020	0.017	
Asia															
Ob	0.011–0.017														
Yenisei	0.005–0.006														
Lena	0.019														

(*Continued*)

Table 1 (Continued)

Element	*Pb*	*Pd*	*Pr*	*Ra (fg L^{-1})*	*Re*	*Rb*	*Sb*	*Sc*	*Se*	*Sm*	*Sr*	*Ta*	*Tb*	*Th*	*Ti*
Changjiang	0.054			50					0.22–0.23	0.0150	210				
Huanghe	0.010–4.1										1140				
Xijiang											110				
Ganges				45–90	0.00170						90				
Mekong											298				
Brahmaputra				31	0.00011						59				
Indus										0.0007	324				
Shinano, Jpn.										0.0110					
World average	**0.079**	**0.028**	**0.04**	**24**	**0.0004**	**1.63**	**0.07**	**1.2**	**0.07**	**0.036**	**60.0**	**0.0011**	**0.0055**	**0.041**	**0.489**
Riverine flux (kt yr^{-1})	3	1.05	1.5	0.9.10–6	0.015	60.962	2.6	45	2.6	1.3	2240	0.04	0.2	1.5	18

Element	*Tl*	*Tm*	*U*	*V*	*W*	*Y*	*Yb*	*Zn*	*Zr*
Africa									
Oubangui		0.0040	0.055				0.0240		
Zaire		0.0050	0.071				0.0270		
Kasai		0.0030	0.027				0.0190		
Congo at Brazzaville		0.0035	0.049				0.0290		
Niger			0.020	0.590				0.89	0.120
Douna									
Nyong		0.0085	0.029	0.645			0.0597		0.395
Sanaga			0.028			0.0870		1.02	0.038
Nyong		0.0085	0.022			0.4610	0.0530	1.81	0.355
Mengong		0.0051	0.022			0.2821	0.0311	3.12	0.592
Europe									
Seine at Paris, Fr.			0.820	2.850		0.0500		4.98	
Garonne River Fr.		0.0006	0.750				0.0036		
Rhine in Alsace, Fr.							0.0018		
Vosges Stream, Fr.							0.0120		
Harz Mountains, Ger.	0.0400		0.060	0.400		1.4000		27.00	
Kalix River, Sweden, 1991			0.090						
Kalix River, 1977 May									
Idel river		0.0015	0.038	0.442		0.0920	0.0079	6.30	0.130
N. America									
St. Lawrence		0.0006	0.373	0.439		0.0320	0.0029	2.58	0.022
SLRS 4	0.0076	0.0002	0.050	0.350		0.1460	0.0120	1.24	0.120
Ottawa		0.0035	0.072	0.341		0.2173	0.0201	3.53	0.086
Mistassini, Can.		0.0025	0.022	0.324		0.2033	0.0191	3.79	0.047
Mackenzie		0.0016	0.730	0.253		0.0313	0.0073	0.50	0.054
Peel, Can.		0.0011		0.236		0.0574		0.88	0.038
Indin River, Can.				0.009		0.0533		1.52	0.037

Beatton, Can.	0.0087		0.398		0.8936	1.34	0.710
Upper Yukon, Can.			0.347		0.0283	0.0040	2.29	0.041
Skeena, Can.			0.106		0.1412			0.048
Fraser River, Can.		0.330	0.390		0.0690			
Columbia River						0.0045		
Californian Streams				0.1–180				
Connecticut						0.0047		
Hudson River						0.0091		
Upper Mississippi		1.285	2.055				0.21	
Missouri		1.142	0.638				0.12	
Ohio		0.333	0.581				0.17	
Illinois		1.404	1.770				0.98	
Mississippi at Mouth		0.62–1.3	0.82–1.84			0.0044	0.18–0.35	
S. America								
Amazon, mean value	**0.0033**	**0.052**	**0.703**			**0.0159**	**0.45**	
Amazon <0.2 μm	**0.0009**	**0.055**				**0.0051**	**0.76**	**0.027**
Amazon, <100 kDa	0.0003	0.022				0.0016		0.004
Amazon, <5 kDa		0.004					0.80	
Negro, <0.2 μm	*0.0024*	*0.019*				*0.0100*	*1.80*	
Negro, <0.2 μm	0.0025	0.034				0.0169	1.21	0.068
Solimoes, <0.2 μm	*0.0045*	*0.040*				*0.0214*	*2.35*	
Solimoes, <0.2 μm	0.0006	0.050				0.0037	3.01	0.008
Madeira, <0.2 μm	*0.0025*	*0.023*				*0.0092*	*0.67*	
Madeira, <0.2 μm	0.0001	0.026				0.0007	0.67	0.001
Trompetas, <0.2 μm	*0.0041*	*0.044*				*0.0264*	*1.15*	
Trompetas, <0.2 μm	0.0006	0.024				0.0043	1.16	0.026
Tapajos, <0.2 μm	*0.0013*	*0.019*				*0.0055*	*1.02*	
Tapajos, <0.2 μm	0.0003	0.015				0.0019	0.75	0.003
Rio Beni at Riberalta		0.033					0.46	
Mamore		0.042					0.27	
Rio Beni at Rurrenabaque		0.060					0.40	
Orinoco, <0.2 μm	0.0043	0.049					1.75	0.105
Orinoco, <10 kDa	0.0018	0.023					2.42	0.029
Caroni at Cuidad Bolivar	0.0009	0.012					1.53	0.070
Asia								
Ob								
Yenisei								
Lena							0.36	
Changjiang		1.100				0.0080	0.039–0.078	
Huanghe		7.500					0.065–0.32	
Xijiang								
Ganges		2.000						

(*Continued*)

Table 1 (Continued)

Element	*Tl*	*Tm*	*U*	*V*	*W*	*Y*	*Yb*	*Zn*	*Zr*
Mekong									
Brahmaputra			1.000						
Indus			4.940			0.0009			
Shinano, Jpn.						0.0071			
World average		**0.0033**	**0.372**	**0.71**	**0.1**	0.0400	**0.0170**	**0.60**	**0.039**
Riverine flux (kt yr^{-1})		0.12	14	27	3.7	1.5	0.6	23	1.5

(1) Dupré et al. (1996), (2) Levasseur et al. (1999), (3) Froelich et al. (1985), (4) Picouet et al. (2001), (5) Viers et al. (2000), (6) Viers et al. (1997), (7) Roy (1996), (8) Keasler and Loveland (1982), (9) Chabaux et al. (2001), (10) Tricca et al. (1999), (11) Frei et al. (1998), (12) Ingri et al. (2000), (13) Pokrovski and Schot (2002), (14) Gaillardet et al. (2003), (15) Lemarchand et al. (2000), (16) Andrae and Froeclich (1985), (17) Yeghicheyan et al. (2000), (18) Vigier et al. (2001), (19) Huh et al. (1998), (20) Cameron et al. (1995), (21) Johannesson et al. (1999), (22) Sholkovitz (1995), (23) Benoit (1995), (24) Shiller (1997), (25) Shiller and Mao (2000), (26) Gaillardet et al. (1997), (27) Yee et al. (1987), (28) Seyler and Boaventura (2002), (29) Brown et al. (1992a), (30) Deberdt et al. (2002), (31) Elbaz-Poulichet et al. (1999), (32) Edmond et al. (1995), (33) Dai and Martin (1995), (34) Martin et al. (1993), (35) Zhang et al. (1998), (36) Shiller and Boyle (1985), (37) Edmond et al. (1985), (38) Huang et al. (1988), (39) Zhang (1994), (40) Zhang et al. (1993), (41) Sharma et al. (1999), (42) Sarin et al. (1990), (43) Dalai et al. (2001), (44) Goldstein and Jacobsen (1988), (45) Porcelli et al. (1997), (46) Chabaux et al. (2003), (47) Gaillardet et al. (1999a), (48) Colodner et al. (1993).