

# Supplementary

## Major and Trace Elements in Human Kidney Stones: A Preliminary Investigation in Beijing, China

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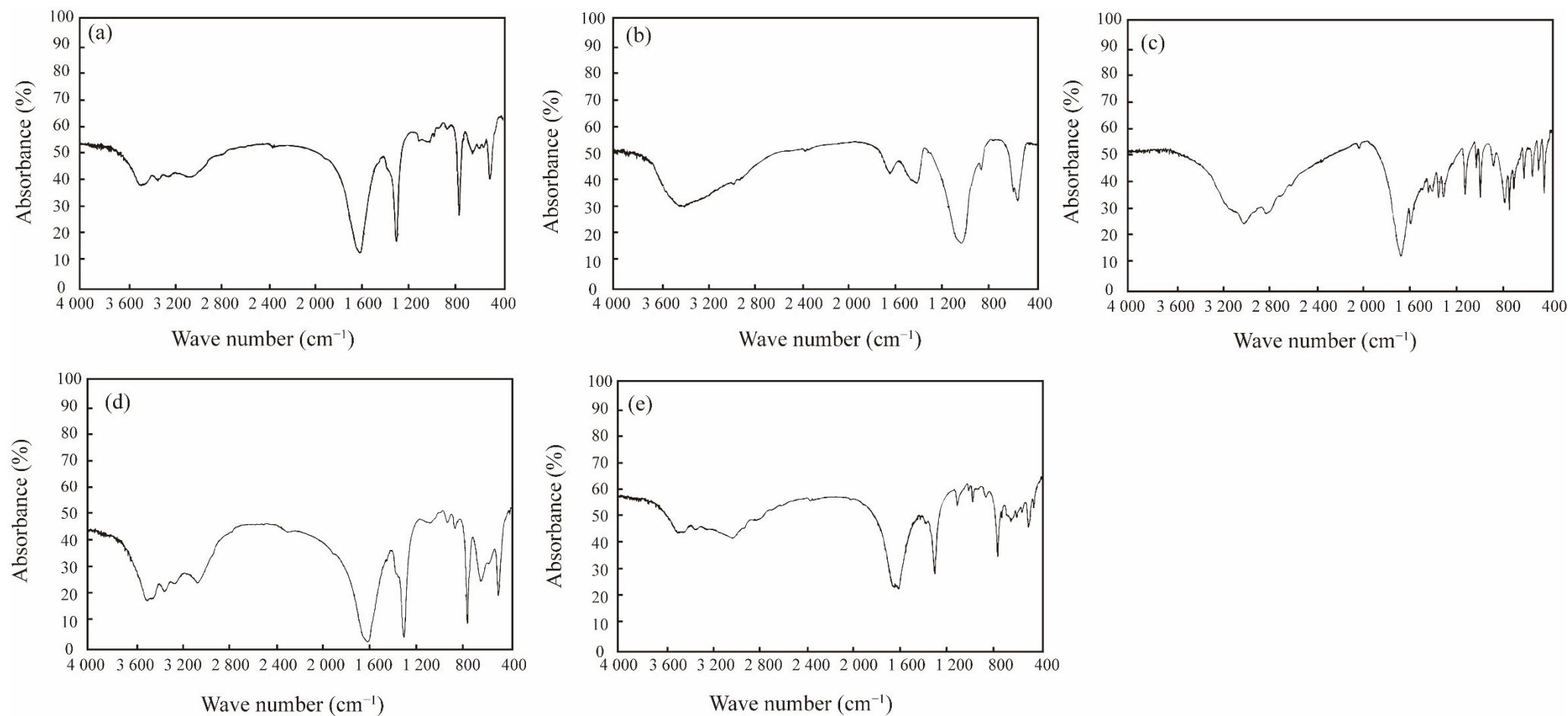
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**Table S1.** Major and trace elements of all kidney stones.

NO	Gender	Age	Types	Ca %	Mg mg/g	Na μg/g	K μg/g	Sr μg/g	Zn μg/g	Li μg/kg	Ti μg/kg	Cu μg/kg	Se μg/kg	Rb μg/kg	Ba μg/kg	Pb μg/kg
1	Male	63	CO	29.9	3.5	7317.9	410.3	287.2	1023.7	457.4	1163.7	284.8	136.8	291.3	5165.9	7955.2
2	Male	51	CO	26.0	0.1	2841.1	0.0	48.9	19.2	0.0	485.7	796.4	292.9	121.1	0.0	1385.7
3	Male	53	CO	16.0	0.1	1382.9	0.0	30.8	16.9	1.0	46.2	950.9	271.1	72.6	74.7	802.6
4	Male	27	CO	29.2	2.6	5411.9	1.9	149.4	457.9	475.0	1681.3	490.6	187.5	315.3	2265.6	11575.0
5	Female	39	CO	25.1	0.2	2529.6	0.0	61.9	120.2	6.3	147.8	462.3	128.9	128.6	1632.1	3616.4
6	Male	50	CO	24.8	0.5	1864.3	0.0	88.8	172.2	28.9	348.4	758.1	198.6	90.1	265.3	14592.1
7	Female	56	CO	23.7	0.2	1693.0	129.9	42.8	23.4	0.0	161.2	1021.0	16.4	280.1	58.4	988.3
8	Female	54	CO	28.5	3.3	6244.2	272.0	238.3	568.8	428.6	1484.4	520.1	138.4	180.7	4516.7	9189.7
9	Male	61	CO	25.2	0.4	1818.3	118.4	54.4	22.2	7.4	166.7	627.8	107.4	143.4	336.1	3513.0
10	Female	56	CO	27.2	1.0	3413.1	238.7	165.6	506.3	182.9	640.0	336.2	136.2	167.5	1924.8	6934.3
11	Female	61	CO	26.6	2.2	3109.6	53.4	112.7	234.8	131.3	510.3	639.8	72.2	75.0	874.3	7093.8
12	Male	41	CO	28.1	0.9	2134.2	0.0	119.1	438.7	155.7	621.9	235.0	42.6	43.4	3160.5	8096.7
13	Male	62	CO	26.4	1.2	2927.8	0.0	248.7	474.9	158.7	713.0	450.0	43.5	47.6	2610.9	4834.8
14	Male	48	CO	29.9	1.0	3323.3	0.0	208.5	987.2	176.1	1213.1	267.1	85.2	141.8	3588.1	11338.1
15	Male	31	CO	26.5	0.3	1680.3	0.0	46.0	113.5	12.7	347.5	688.6	319.9	40.0	163.1	3349.6
16	Female	61	CO	26.7	1.5	3532.3	58.1	130.6	451.0	108.0	672.9	1838.5	149.4	64.9	1006.5	23631.5
17	Male	60	CO	24.0	0.2	1295.5	0.0	103.7	24.6	0.0	16.3	457.3	212.4	69.0	0.0	2199.2
18	Male	40	CO	25.6	0.3	1659.7	0.0	81.3	95.1	24.8	176.5	474.3	171.9	69.8	909.9	1750.0
19	Male	50	CO	25.0	0.3	1343.4	174.5	66.5	192.3	13.9	320.8	685.2	221.8	130.6	319.8	1310.9
20	Female	60	CA	22.4	35.8	9223.8	1256.4	486.8	1093.9	1093.3	1677.8	195.5	38.3	3284.8	5409.6	3794.7
21	Male	64	CA	27.4	13.2	7277.8	252.9	269.9	900.2	352.9	1658.4	312.2	81.5	262.2	3599.6	9108.6
22	Male	57	CA	10.4	60.2	6633.7	1171.6	229.0	516.8	305.6	1750.0	598.2	31.8	7922.5	3897.8	4543.7
23	Male	73	CA	16.3	42.6	9476.0	1745.5	232.1	555.6	773.3	1397.0	1425.7	18.8	5757.3	3465.4	3067.3
24	Male	40	UA	1.4	0.0	483.8	26.8	2.3	1.3	0.0	96.5	2813.0	637.2	227.5	0.0	211.4
25	Male	58	UA	0.6	0.0	762.3	144.9	1.3	0.9	0.0	0.0	850.0	147.7	324.3	0.0	33.7
26	Female	77	Mixed CO and CA	26.2	0.3	1599.0	0.0	46.7	129.0	0.1	395.4	859.5	143.8	74.8	1620.9	2045.8
27	Male	47	Mixed CO and CA	28.4	2.5	5864.3	297.8	248.7	616.8	451.2	992.0	337.7	187.3	171.2	4536.9	6743.0
28	Male	66	Mixed CO and CA	25.4	0.0	2292.6	0.0	55.7	12.3	0.0	0.0	278.7	98.4	245.1	0.0	672.1
29	Male	50	Mixed CO and UA	16.8	0.1	897.0	0.0	44.5	16.5	0.0	42.4	1690.7	288.1	143.6	0.0	1597.5
30	Male	75	Mixed CO and UA	6.8	0.0	818.9	61.9	13.3	3.6	0.0	52.2	2040.0	443.3	243.2	0.0	420.0

CO: calcium oxalate; CA: carbonate apatite; UA: uric acid;



**Figure S1.** Infrared spectra of kidney stones as follows: (a) calcium oxalate; (b) carbonate apatite; (c) uric acid; (d) mixed calcium oxalate and carbonate apatite; (e) mixed calcium oxalate and uric acid.