1. The following is the outcome of using a tabula find on a particular page that is giving me trouble while trying to get the data from the bottom table. Notice that it includes junk paragraphs as part of the table.

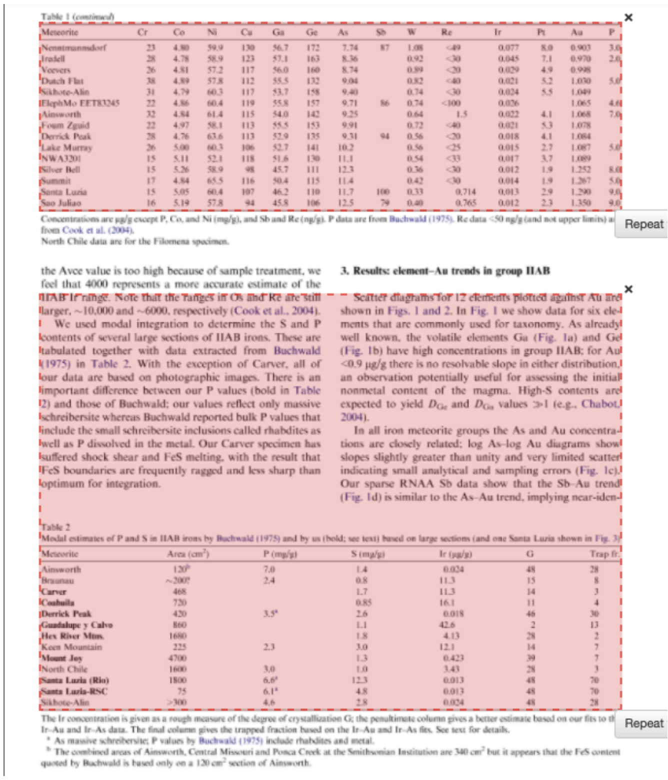


Table 1 (continued)

Meteorite	Cr	Co	Ni	Cu	Ga	Ge	As	Sb	W	Re	Ir	Pt	Au	P
Nenntmannsdorf	23	4.80	59.9	130	56.7	172	7.74	87	1.08	<49	0.077	8.0	0.903	3.0
Iredell	28	4.78	58.9	123	57.1	163	8.36		0.92	<30	0.045	7.1	0.970	2.0
Veevers	26	4.81	57.2	117	56.0	160	8.74		0.89	<20	0.029	4.9	0.998	
Dutch Flat	38	4.89	57.8	112	55.5	132	9.04		0.82	<40	0.021	5.2	1.030	5.0
Sikhote-Alin	31	4.79	60.3	117	53.7	158	9.40		0.74	<30	0.024	5.5	1.049	
ElephMo EET83245	22	4.86	60.4	119	55.8	157	9.71	86	0.74	<100	0.026		1.065	4.6
Ainsworth	32	4.84	61.4	115	54.0	142	9.25		0.64	1.5	0.022	4.1	1.068	7.0
Foum Zguid	22	4.97	58.1	113	55.5	153	9.91		0.72	<40	0.021	5.3	1.078	
Derrick Peak	28	4.76	63.6	113	52.9	135	9.31	94	0.56	<20	0.018	4.1	1.084	
Lake Murray	26	5.00	60.3	106	52.7	141	10.2		0.56	<25	0.015	2.7	1.087	5.0
NWA3201	15	5.11	52.1	118	51.6	130	11.1		0.54	<33	0.017	3.7	1.089	
Silver Bell	15	5.26	58.9	98	45.7	111	12.3		0.36	<30	0.012	1.9	1.252	8.0
Summit	17	4.84	65.5	116	50.4	115	11.4		0.42	<30	0.014	1.9	1.267	5.0
Santa Luzia	15	5.05	60.4	107	46.2	110	11.7	100	0.33	0.714	0.013	2.9	1.290	9.0
Sao Juliao	16	5.19	57.8	94	45.8	106	12.5	79	0.40	0.765	0.012	2.3	1.350	9.0

Concentrations are µg/g except P, Co, and Ni (mg/g), and Sb and Re (ng/g). P data are from Buchwald (1975). Re data <50 ng/g (and not upper limits) a from Cook et al. (2004).
North Chile data are for the Filomena specimen.

Repeat

the Avce value is too high because of sample treatment, we feel that 4000 represents a more accurate estimate of the IIAB Ir range. Note that the ranges in Os and Re are still larger, ~10,000 and ~6000, respectively (Cook et al., 2004).

We used modal integration to determine the S and P contents of several large sections of IIAB irons. These are tabulated together with data extracted from Buchwald (1975) in Table 2. With the exception of Carver, all of our data are based on photographic images. There is an important difference between our P values (bold in Table 2) and those of Buchwald; our values reflect only massive schreibersite whereas Buchwald reported bulk P values that include the small schreibersite inclusions called rhabdites as well as P dissolved in the metal. Our Carver specimen has suffered shock shear and FeS melting, with the result that FeS boundaries are frequently ragged and less sharp than optimum for integration.

3. Results: element–Au trends in group IIAB

Scatter diagrams for 12 elements plotted against Au are shown in Figs. 1 and 2. In Fig. 1 we show data for six elements that are commonly used for taxonomy. As already well known, the volatile elements Ga (Fig. 1a) and Ge (Fig. 1b) have high concentrations in group IIAB; for Au <0.9 µg/g there is no resolvable slope in either distribution, an observation potentially useful for assessing the initial nonmetal content of the magma. High-S contents are expected to yield D_{Ge} and D_{Ga} values ≫1 (e.g., Chabot, 2004).

In all iron meteorite groups the As and Au concentrations are closely related; log As–log Au diagrams show slopes slightly greater than unity and very limited scatter indicating small analytical and sampling errors (Fig. 1c). Our sparse RNAA Sb data show that the Sb–Au trend (Fig. 1d) is similar to the As–Au trend, implying near-iden-

Table 2
Modal estimates of P and S in IIAB irons by Buchwald (1975) and by us (bold; see text) based on large sections (and one Santa Luzia shown in Fig. 3)

Meteorite	Area (cm^2)	P (mg/g)	S (mg/g)	Ir (µg/g)	G	Trap fr.
Ainsworth	120[b]	7.0	1.4	0.024	48	28
Braunau	~200?	2.4	0.8	11.3	15	8
Carver	468		1.7	11.3	14	3
Coahuila	720		0.85	16.1	11	4
Derrick Peak	420	3.5[a]	2.6	0.018	46	30
Guadalupe y Calvo	860		1.1	42.6	2	13
Hex River Mtns.	1680		1.8	4.13	28	2
Keen Mountain	225	2.3	3.0	12.1	14	7
Mount Joy	4700		1.3	0.423	39	7
North Chile	1600	3.0	1.0	3.43	28	3
Santa Luzia (Rio)	1800	6.6[a]	12.3	0.013	48	70
Santa Luzia-RSC	75	6.1[a]	4.8	0.013	48	70
Sikhote-Alin	>300	4.6	2.8	0.024	48	28

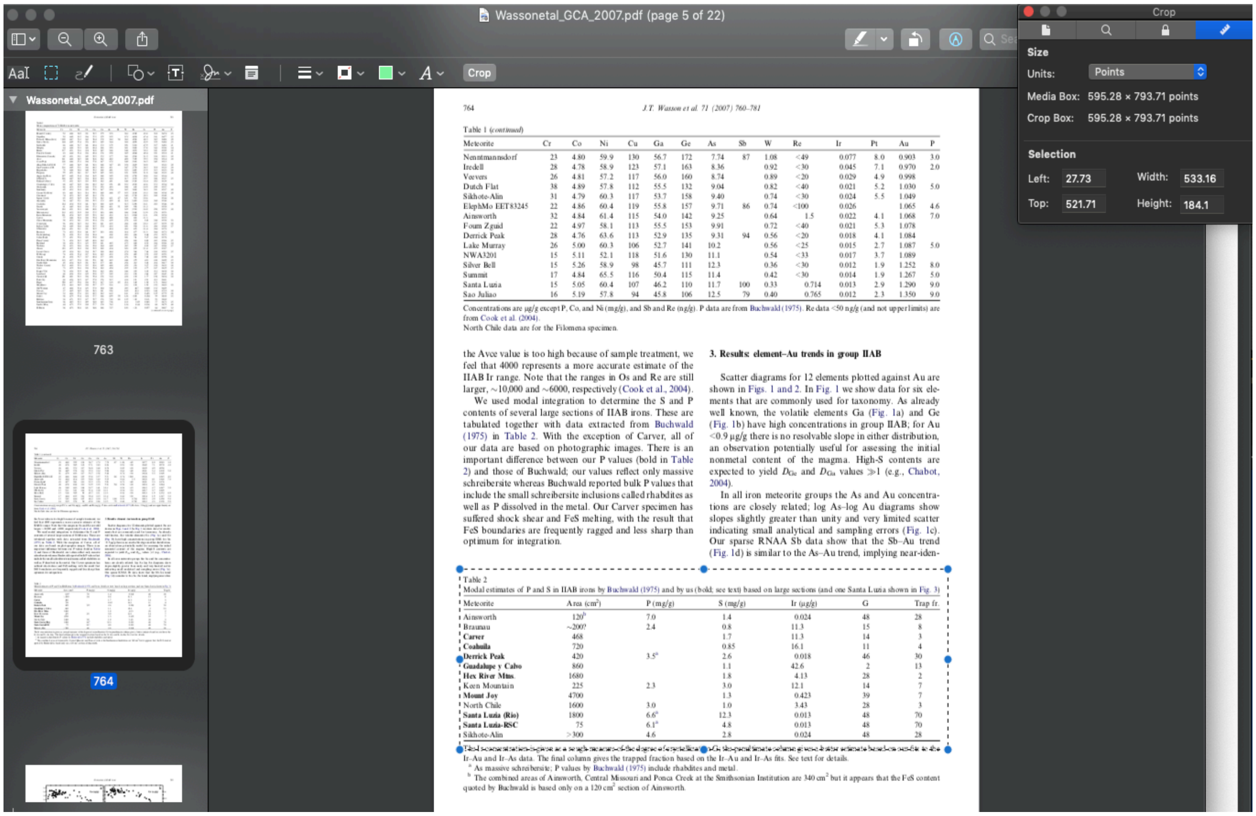
The Ir concentration is given as a rough measure of the degree of crystallization G; the penultimate column gives a better estimate based on our fits to th Ir–Au and Ir–As data. The final column gives the trapped fraction based on the Ir–Au and Ir–As fits. See text for details.
[a] As massive schreibersite; P values by Buchwald (1975) include rhabdites and metal.
[b] The combined areas of Ainsworth, Central Missouri and Ponca Creek at the Smithsonian Institution are 340 cm^2 but it appears that the FeS content quoted by Buchwald is based only on a 120 cm^2 section of Ainsworth.

Repeat

2. The following is a snapshot of the data gotten from the table when using tabula in this way, with no coordinate intervention. Notice all the data combined into one cell.

IIAB Ir range. Note that the ranges in Os and Re are still Scatter diagrams for 12 elements plotted against Au are
larger, 10,000 and 6000, respectively (Cook et al., 2004). shown in Figs. 1 and 2. In Fig. 1 we show data for six ele-
We used modal integration to determine the S and P ments that are commonly used for taxonomy. As already
contents of several large sections of IIAB irons. These are well known, the volatile elements Ga (Fig. 1a) and Ge
tabulated together with data extracted from Buchwald (Fig. 1b) have high concentrations in group IIAB; for Au
(1975) in Table 2. With the exception of Carver, all of <0.9 lg/g there is no resolvable slope in either distribution,
our data are based on photographic images. There is an an observation potentially useful for assessing the initial
important difference between our P values (bold in Table nonmetal content of the magma. High-S contents are
2) and those of Buchwald; our values reflect only massive expected to yield DGe and DGa values 1 (e.g., Chabot,
schreibersite whereas Buchwald reported bulk P values that 2004).
include the small schreibersite inclusions called rhabdites as In all iron meteorite groups the As and Au concentra-
well as P dissolved in the metal. Our Carver specimen has tions are closely related; log As–log Au diagrams show
suffered shock shear and FeS melting, with the result that slopes slightly greater than unity and very limited scatter
FeS boundaries are frequently ragged and less sharp than indicating small analytical and sampling errors (Fig. 1c).
optimum for integration. Our sparse RNAA Sb data show that the Sb–Au trend
(Fig. 1d) is similar to the As–Au trend, implying near-iden-
Table 2
Modal estimates of P and S in IIAB irons by Buchwald (1975) and by us (bold; see text) based on large sections (and one Santa Luzia shown in Fig. 3)
Meteorite Area (cm2) P (mg/g) S (mg/g) Ir (lg/g) G Trap fr.
Ainsworth 120b 7.0 1.4 0.024 48 28
Braunau 200? 2.4 0.8 11.3 15 8
Carver 468 1.7 11.3 14 3
Coahuila 720 0.85 16.1 11 4
Derrick Peak 420 3.5a 2.6 0.018 46 30
Guadalupe y Calvo 860 1.1 42.6 2 13
Hex River Mtns. 1680 1.8 4.13 28 2
Keen Mountain 225 2.3 3.0 12.1 14 7
Mount Joy 4700 1.3 0.423 39 7
North Chile 1600 3.0 1.0 3.43 28 3
aSanta Luzia (Rio) 1800 6.6 12.3 0.013 48 70
aSanta Luzia-RSC 75 6.1 4.8 0.013 48 70
Sikhote-Alin >300 4.6 2.8 0.024 48 28

3. The following is a snapshot of me manually getting the coordinates from the pdf page in question, using the Apple Preview tool.



4. The following is a snippet of my code, where I feed the coordinates of the table into Tabula.

```
print(sys.argv[1])

pdf_name = "pdfs/" + str(sys.argv[1])
pdf_name = "pdfs/Wassonetal_GCA_2007.pdf"
pagenum = int(sys.argv[2]) - 1
pagenum = 5


page_in = open(pdf_name, 'rb')
page_reader = PyPDF2.PdfFileReader(page_in)

page_in.close()

tables_rec_from_page = read_pdf(pdf_name, output_format="dataframe", encoding="utf-8", multiple_tables=True,
                                pages=pagenum, silent=True, area = [521.71, 27.73, 705, 560])

print(tables_rec_from_page)
```

5. Lastly, the following is a snapshot of the data gotten with my code.

```
[                         0          1    2          3        4   5        6
0       Meteorite Area (cm2)  P (mg/g)  NaN  S (mg/g)  Ir (lg/g)  G  Trap fr.
1          Ainsworth 120b       7.0  NaN        1.4    0.024  48       28
2           Braunau 200?        2.4  NaN        0.8     11.3  15        8
3             Carver 468        NaN  NaN        1.7     11.3  14        3
4           Coahuila 720        NaN  NaN       0.85     16.1  11        4
5        aDerrick Peak 420      3.5  NaN        2.6    0.018  46       30
6     Guadalupe y Calvo 860     NaN  NaN        1.1     42.6   2       13
7     Hex River Mtns. 1680      NaN  NaN        1.8     4.13  28        2
8       Keen Mountain 225       2.3  NaN        3.0     12.1  14        7
9          Mount Joy 4700       NaN  NaN        1.3    0.423  39        7
10       North Chile 1600       3.0  NaN        1.0     3.43  28        3
11   Santa Luzia (Rio) 1800    6.6a  NaN       12.3    0.013  48       70
12     aSanta Luzia-RSC 75      6.1  NaN        4.8    0.013  48       70
13       Sikhote-Alin >300      4.6  NaN        2.8    0.024  48       28]
```