Two-Circle Goniometers

In view of the shortcomings (mechanical and optical) of several types of two-circle goniometers available abroad, a group of mineralogists and chemists are having such an instrument redesigned and built by a United States firm. This goniometer will have an interchangeable crystal carrier, to be used in x-ray work, and will serve the purpose of physicists and chemists, as well as mineralogists.

Valuable advice has already been obtained from various quarters. Anyone interested in this undertaking please communicate with one of the undersigned, who will gratefully receive comments and suggestions.

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Omissions and Errata in the American Mineralogist, Volume 23

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I am indebted to the friendly interest of Dr. Schaller for calling my attention to a number of mistakes and omissions in papers that have been issued from this laboratory during the past year. In the following pages I am doing what I can to correct the errors or to supply the omissions. The notes all refer to articles appearing in Volume 23.

On page 645 in the list of forms of meyerhofferite, the forms $E\{212\}$ and $D\{\bar{2}\bar{1}2\}$ should both be omitted from the table and indicated as doubtful, since each was observed but once.

On pages 714–716 the letters p and q of szomolnokite should be interchanged wherever used, both in tables and figures, so that p is $\{\bar{1}11\}$ and q is $\{111\}$. This is conformable to the original usage of Krenner.

On page 725 is given an angle table for pickeringite. By an unfortunate omission the table of observations on which the form list was based was omitted. It is given herewith. The form $S\{\bar{3}31\}$ should be omitted from the table and indicated as doubtful since it was observed but once. The angles given for the form $n\{210\}$ on line 4 of this table are wrong throughout and should read as follows:

ϕ	ρ	ϕ_2	$\rho_2 = B$	C	A
$66°44\frac{1}{2}'$	$90°00'$	$0°00'$	$66°44\frac{1}{2}'$	$83°58'$	$23°15\frac{1}{2}'$

MEASURED ANGLES OF PICKERINGITE

	Mean		Range		No. of	
	ϕ	ρ	ϕ	ρ	xls.	faces
010	0°10′	90°00′	0°03′– 0°18′	—	4	6
100	90 20	90 00	90 08 –90 32	—	2	2
110	49 18½	90 00	48 58 –49 51	90°00′	11	15
210	66 45	90 00	66 38 –66 52	90°00′	2	2
011	24 36	15 32	23 53 –26 00	15°00′–15°51′	4	5
021	12 56	27 36	12 41 –13 10	26 51 –28 00	2	4
031	8 21	37 45	7 19 – 8 54	37 32 –38 00	6	6
041	6 40	45 55	6 21 – 7 00	45 44 –46 06	1	2
101	90 00	22 14	—	22 05 –22 19	4	4
301	90 00	45 06	—	44 32 –46 29	4	4
$\bar{1}01$	–90 00	10 30	—	10 00 –10 30	2	2
$\bar{3}01$	–90 00	37 53	—	37 45 –38 00	2	2
111	58 21	25 53½	57 42 –58 50	25 37 –26 12	4	6
221	54 18	41 15	53 37 –54 48	41 02 –41 34	5	5
$\bar{1}11$	–34 38	17 16½	–34 28 –35 55	16 43 –17 33	4	6
$\bar{2}21$	–43 18	35 09	–43 05 –43 57	34 30 –35 10	3	4
$\bar{3}31$	–45 25	47 30	—	—	1	1
121	38 25	33 14	38 18 –38 43	33 09 –33 17	3	4
131	28 20	41 00	27 42 –28 55	40 23 –41 34	7	10
$\bar{1}21$	–19 13	28 24	–19 00 –19 25	28 10 –28 35	3	3
$\bar{1}31$	–13 42	38 07	–13 23 –14 22	38 00 –38 16	5	5
$\bar{1}41$	–10 08	46 08	–10 05 –10 11	46 06 –46 09	2	2
211	70 15	37 03	69 41 –71 20	36 51 –37 42	4	6
231	42 27	46 10	42 05 –42 51	46 06 –46 20	8	10
$\bar{2}11$	–61 58	28 25	–61 52 –62 05	28 10 –28 38	2	3
$\bar{2}31$	–31 35	42 14½	–31 03 –31 49	42 00 –42 38	3	4
$\bar{2}41$	–25 14	48 16	–24 44 –25 46	48 02 –48 27	3	4
311	75 38	46 09	74 42 –76 07	46 00 –46 14	5	5
321	63 10½	48 21½	62 54 –63 37	48 17 –48 34	6	10
$\bar{3}11$	–72 05	39 07	–71 38 –72 53	39 00 –39 17	3	5
$\bar{3}21$	–56 33	42 51	–56 06 –56 43	42 46 –43 10	6	7
$\bar{4}21$	–64 22	49 42	–64 16 –64 28	49 42 –49 42	1	2

On page 750 is an angle table for botryogen. The list of observations was omitted also and is given herewith. The six new forms starred in this list are weak and should not be included in the angle table but should be indicated as requiring confirmation.

MEASURED ANGLES OF BOTRYOGEN (QUETENITE)

	Mean		Range		No. of	
	ϕ	ρ	ϕ	ρ	xls.	faces
001	—	—			11	11
010	0°00′	90°00′	Used for adjustment			
100	90 00	90 00				
*270	26 20	90 00			1	1
130	30 21	90 00	29°00′–31°06′	—	6	6
*250	34 52	90 00	—	—	2	2
120	40 51	90 00	39 35 –40 58	—	8	10
350	46 27	90 00	46 03 –47 06	—	3	3
450	56 00	90 00	54 09 –56 51	—	4	4
110	59 58	90 00	58 57 –60 18	—	10	13
210	73 50	90 00	73 41 –74 00	—	2	2
011	24 09	23 37	23 56 –24 26	23°36′–23°38′	3	3
021	12 51	39 19	12 46 –13 03	39 06 –39 41	3	3
*031	9 03	53 20	—	—	1	1
101	90 00	41 00	—	40 55 –41 08	4	4
$\bar{1}01$	−90 00	27 08	—	27 03 –27 11	9	9
111	65 18	43 37	65 09 –65 31	43 30 –43 50	4	5
221	66 33	64 10	—	—	1	1
$\bar{1}11$	−52 12	32 58	−51 56 –52 29	32 56 –33 00	3	3
*121	46 49	49 40	—	—	1	1
131	36 06	56 06	35 25 –36 44	65 13 –65 31	2	3
141	30 39	62 45	—	—	1	1
$\bar{1}21$	−32 32	43 30	−30 56 –32 39	43 23 –43 38	5	7
*$\bar{1}31$	−22 41	53 00	—	—	1	1
*$\bar{1}71$	−11 44	70 50	−10 49 –12 39	—	2	2

Another omission of the same nature was with regard to the mineral *parabutlerite* described on page 743. Unfortunately, the data of observations for this mineral have been mislaid and have not as yet been discovered, so that this omission cannot now be supplied. In case the missing sheets are not found, the endeavor will be made to remeasure crystals of the substance and thus re-establish the elements and forms of the species on published data.

In partial explanation for these errors, it might be pointed out that the work on this paper was completed after the author had left Cambridge and some confusion arose in the manuscript material upon which it was based.

F. A. Bannister of the British Museum, Department of Mineralogy, has drawn my attention to two mistakes in an article on the x-ray study of diaphorite and freieslebenite by Horace Winchell. On page 834 the first space-group criterion should read:

hkl present only for $(h+k)$ even.

On page 835 the second space-group criterion should read:

$h0l$ present only for l even.