Two crystals were measured. These showed the forms $c = 0(001)$, $b = 0\infty(010)$, $u = \infty 2(120)$, $e = 01(011)$, $o = 02(021)$, $x = 1(111)$, $s = 12(121)$, $d = 0\frac{1}{3}(013)$, and $A^* = 04(041)$. The element was determined afresh. This determination, from nine faces, gave an average value for $p_0 = c = 1.0883$, which is in close agreement with that of the Monteponi crystals, which show $p_0 = c = 1.0889$.[1]

Crystal 1 is represented in Fig. 26, as closely as possible in its natural development, in plan and perspective. The dimensions of this crystal are 10 × 10 × 45 mm. Crystal 2 has the dimensions 5 × 10 × 15 mm. Both crystals show the same combination of faces, as well as the same arrangement of the faces in the order of magnitude. The forms *b*, *c*, *x*, and *o* are the most prominent ones, while *d* and *A* are subordinate.

The form $A = 04$ (041) is a new form. It was found on crystal 1 and shows two faces on that crystal, which yielded the following angles:

	Symbol	φ	ρ
Measured	*A*	180° 01′	77° 15′
		270° 02′	77° 20′
Calculated	*A*	180° 00′	77° 06′
		270° 00′	77° 06′

The form is thus verified.

LISTS OF THE TETRAGONAL MINERALS INCLUDED IN GOLDSCHMIDT'S WINKELTABELLEN. Edgar T. Wherry. *Washington, D. C.*—The tetragonal minerals included in the Winkeltabellen are here arranged in the order of increasing value of $p_0(= c)$. This arrangement may be useful for determinative purposes:—measurement of p_0 on an unknown crystal will enable it to be placed in a certain position in the series, and its identity with one of the minerals falling near that position can usually be readily established. In case the form taken as first order in measuring the unknown happens to have been taken as second order in calculating the angle-table, however, the value of p_0 obtained will have to be divided (or multiplied) by $\frac{1}{2}\sqrt{2}$ in order to place the unknown. For instance, suppose an unknown crystal, actually chalcopyrite, were measured in Dana's orientation, it would show $p_0 = 0.98\pm$; search in the table would show near this value only edingtonite and arksutite, with neither of which the unknown would agree in physical features. On dividing the value obtained by 0.7071, however, the result would be $1.38\pm$; and on looking at the corresponding portion of the table, chalcopyrite would soon be located.

Supplementary lists give the tetragonal minerals which have been found to show diminished symmetry.

[1] V. Goldschmidt. Z. *Kryst. Min.*, **21**, 327, 1893; **23**, 147, 1894; *Winkeltabellen*, 265, 1897.

TETRAGONAL MINERALS

	$p_0 = c$	Page
Tin (Zinn)	0.3857	375
Wernerite	0.4400	319
Melilite (Humboldtilith)	0.4548	180
Vesuvianite (Idokras)	0.5376	187
Gehlenite	0.5658	155
Mursinskite	0.5664	414
(Alvite) [= var. of zircon]	0.6370	35
Zircon (Zirkon)	0.6403	379
Thorite	0.6405	343
Rutile	0.6442	307
Tapiolite	0.6464	338
Trippkeite	0.6477	351
Meliphanite (Melinophan)	0.6584	237
Sellaite	0.6596	315
(Belonesite) [Sellaite]	0.6605	64
Polianite	0.6647	269
Cassiterite (Zinnerz)	0.6723	375
Plattnerite	0.6764	417
Ganomalite	0.7070	154
Mellite	0.7463	237
Heldburgite	0.7500	173
Xenotime	0.8757	370
Sarcolite (Sarkolith)	0.8872	311
Edingtonite	0.9530	122
(Arksutite) [Chiolite]	1.0150	54
Romeite	1.0257	295
Chiolite	1.0418	94
Hauchecornite	1.0521	171
Pinnoite	1.0761	267
Phosgenite	1.0889	265
Hausmannite	1.1554	172
Apophyllite	1.2515	51
(Reinite) [a pseudom.]	1.2790	294
Zeunerite	1.2880	371
Loeweite (Löweit)	1.3040	223
Eosite	1.3778	128
Chalcopyrite (Kupferkies)	1.3933	206
Braunite	1.4032	78
(Sipylit) [= variety of fergusonite]	1.4500	319
Fergusonite	1.4641	144
Torbernite (Kupferuranit)	1.4691	209
Scheelite	1.5360	312
Powellite	1.5445	272
Stolzite	1.5606	329
Wulfenite	1.5774	368
Calomel (Kalomel)	1.7229	195
Matlockite	1.7630	233
Octahedrite (Anatas)	1.7771	39

REPRESENTATIVES OF CLASSES WITH DIMINISHED SYMMETRY

Class Pyramidal

Wernerite	0.44
Sarcolite	0.89 –
Pinnoite	1.08 –
(Sipylite)	1.45
Fergusonite	1.46 +
Scheelite	1.54 –
Powellite	1.54 +
Stolzite	1.56

Class Pyramidal-Hemimorphic

Wulfenite	1.58 –

Class Trapezohedral

Phosgenite	1.09

Class Sphenoidal

Chalcopyrite	1.39 +

Class Tetartohedral

Meliphanite	0.66 –

Erroneously Classed as Tetragonal

Edingtonite	Orthorhombic
Romeite	Isometric