

**substance: WTe<sub>2</sub>**

**property: crystal structure, physical properties**

(S: structure (space group), CG: crystal growth (the numbers in parentheses correspond to  $T_1$  and  $T_2$ , the temperatures (in °C) of the hot and cold end of the crystal growth tube, respectively)).

(The references in the last column refer to all data of this document)

**lattice parameters**

$a$	6.282 Å	S: orthorhombic, $C_{2v}^7 - Pnm2_1$	66B,
$b$	3.496 Å	CG: halogen transport (900/700)	66K,
$c$	14.07 Å		72A

**resistivity, Seebeck coefficient, Hall coefficient**

$\rho_{\perp}$	$0.75 \cdot 10^{-3} \Omega \text{ cm}$	n-type,	p-type $T \leq 60 \text{ K}$ ,
$S_{\parallel}$	$-30 \mu\text{V K}^{-1}$	synthetic	n-type $60 \text{ K} < T \leq 600 \text{ K}$
$R_{H\perp}$	$-5 \cdot 10^{-2} \text{ cm}^3/\text{C}$	single crystal	
$\rho$	$1.5 \cdot 10^{-3} \Omega \text{ cm}$	poly-	p-type $T \leq 60 \text{ K}$ ,
$S$	$-10 \mu\text{V K}^{-1}$	crystalline	n-type $60 \text{ K} < T \leq 400 \text{ K}$
$R_H$	$2 \cdot 10^{-2} \text{ cm}^3 \text{ C}^{-1}$	sample	p-type $400 \text{ K} < T \leq 600 \text{ K}$

**Figures to this document:**

**resistivity:** Fig. 1

**Seebeck coefficient:** Fig. 2

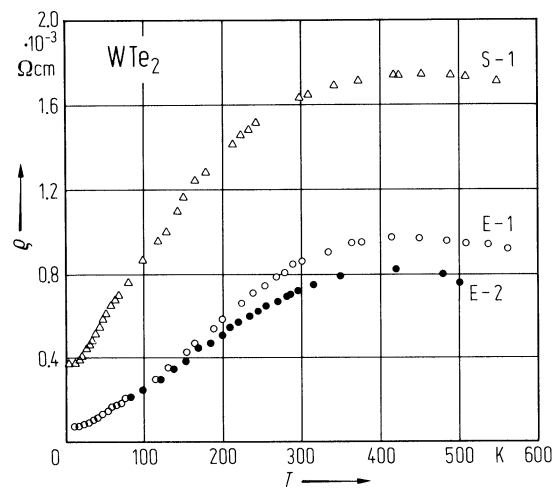
**Hall coefficient:** Fig. 3

**References:**

- 66B     Brown, B. E.: Acta Crystallogr. 20 (1966) 268.
- 66K     Kabashima, S.: J. Phys. Soc. Jpn. 21 (1966) 945.
- 72A     AlHilli, A. A., Evans, B. L.: J. Cryst. Growth 15 (1972) 93.

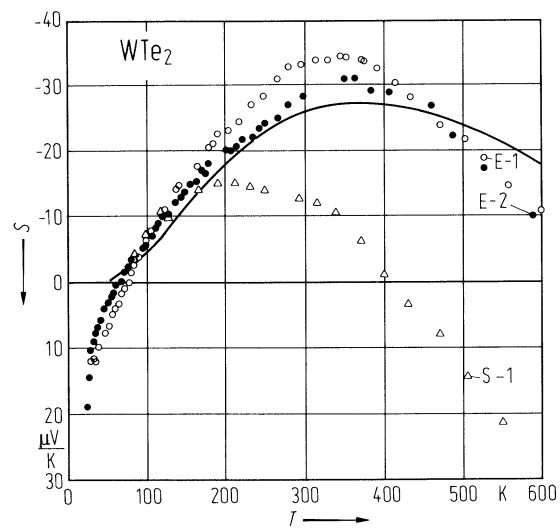
**Fig. 1.**

WTe<sub>2</sub>. Electrical resistivity vs. temperature. E-1, E-2: specimen of single crystals ( $\rho \parallel a$ ), S-1: sintered specimen [66K].



**Fig. 2.**

WTe<sub>2</sub>. Thermoelectric power of WTe<sub>2</sub> relative to Cu vs. temperature for the specimens of Fig. 1.  $S \parallel a$ . Solid curve calculated [66K].



**Fig. 3.**

WTe<sub>2</sub>. Hall coefficient vs. temperature. E-1, E-2, E-3: single crystals, S-1: sintered specimen. The specimen E-1 is typical. Solid curve calculated [66K].  $B \parallel c, I \parallel a$ .

