giving an averaged value of the optic angle of

$$2V = 61° 18' \pm 1° 5',$$

where the deviations are average deviations of the two independent methods.

The optic angle was also determined directly with a conoscope and was found to be in agreement. The optic angle quoted above should be used in preference to the previously reported $40 \pm 5°$ (Wood & Holden, 1957).

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A new crystallographic modification of rhodium monosilicide.

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A new modification of RhSi was prepared by heating rhodium and an excess of silicon (atomic ratio 1:3), in finely divided form, for one hour at 1200 °C. and then for one-half hour at 1550 °C.

The preparation was carried out by induction heating of small samples (0·5–1·0 g.) under vacuum in alumina crucibles. Silicon escaped, presumably as SiO, through the 1 mm. diameter hole in the lid of the crucible. The product in the crucible showed the CsCl (*B*2) structure. The unit-cell dimension (Cu radiation, resolved doublets $\alpha_1 = 1{\cdot}54050$, $\alpha_2 = 1{\cdot}54434$ Å) is $a_0 = 2{\cdot}963 \pm 0{\cdot}0005$ Å. The calculated density is 8·4 g.cm.$^{-3}$. The density of the FeSi (*B*20) modification of this compound as determined by Geller (1954) is 8·3 g.cm.$^{-3}$ (calculated 8·5 g.cm.$^{-3}$).

Table 1. *Diffraction data*

hkl		$\sin^2\theta_c$	$\sin^2\theta_o$	I_o	I_c
100		0·0677	0·0685	5	4·5
110		0·1354	0·1359	10	10·0
111		0·2031	0·2034	1	1·1
200		0·2708	0·2713	2	1·6
210		0·3385	0·3384	2	1·3
211		0·4061	0·4056	5	3·2
220		0·5415	0·5406	1	1·1
221, 300		0·6092	0·6072	1	0·8
310		0·6769	0·6757	3	2·0
311	α_1	0·7433	0·7431	1–	0·7
	α_2	0·7471	0·7477		
222	α_1	0·8109	0·8098	1	0·8
	α_2	0·8150	0·8148		
320	α_1	0·8785	0·8792	1	1·1
	α_2	0·8830	0·8830		
321	α_1	0·9461	0·9456	8	8·8
	α_2	0·9509	0·9511		

The diffraction data appear in Table 1. It was difficult to assess the values of the observed intensities, as the diffraction lines on the film were grainy. This fact also introduced some uncertainty in the observed $\sin^2\theta$ values.

The only other silicide so far reported to have the CsCl structure is RuSi which is also found in the FeSi modification (Korst, Finnie & Searcy, 1957).

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