COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (3) Sodium hydroxide; NaOH; [1310-73-2] (4) Water; H_2O; [7732-18-5]	Piater, J. Z. *anorg. allgem. Chem.* 1928, *174*, 321-41.
VARIABLES: Method of preparation of $Cd(OH)_2$ and the NaOH concentration	**PREPARED BY:** T. P. Dirkse

EXPERIMENTAL VALUES:

Table 1

Solubility of CdO or $Cd(OH)_2$ in water at 25°C.

Preparation	mol dm^{-3}	Solubility Product (mol^3 dm^{-9})
CdO	1.79×10^{-5}	2.3×10^{-14}
$Cd(OH)_2$ [a]	1.30×10^{-5}	8.8×10^{-15}
$Cd(OH)_2$ [b]	1.14×10^{-5}	5.9×10^{-15}
$Cd(OH)_2$ [c]	1.11×10^{-5}	5.5×10^{-15}

[a] prepared by the method of De Schulten (2).

[b] prepared by the method of Bonsdorf (3).

[c] prepared by the reaction: $CdSO_4 + 2NaOH \rightarrow Na_2SO_4 + Cd(OH)_2$

The $Cd(OH)_2$ was washed by decantation and kept under water at least 3 months before use.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Apparently the solid was added to the solvent and shaken. The specific conductance of the solution was measured and the validity of the method was judged by the conductance behavior. Corrections were made for dissolved CO_2 (1) and the solubility was calculated from the specific conductance and accepted values for ionic conductances.	Analysis of each preparation showed about 0.5% impurities. Conductivity water was used, but nothing is stated about the purity of the NaOH.
	ESTIMATED ERROR: Nothing is indicated about temperature control. No information is given about reproducibility. Indications are that there may be an uncertainty of about 5% in the solubility values.

REFERENCES:

1. Laue, E. Z. *anorg. allgem. Chem.* 1927, *165*, 305.
2. De Schulten, A. *Compt. rend.* 1885, *101*, 72.
3. Bonsdorf, W. Z. *anorg. Chem.* 1904, *41*, 187.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (3) Sodium hydroxide; NaOH; [1310-73-2] (4) Water; H_2O; [7732-18-5]	Piater, J. Z. *anorg. allgem. Chem.* 1928, *174*, 321-41.

Table 2

Solubility of $Cd(OH)_2$ in NaOH solutions at 25°C.

mol NaOH dm^{-3}	mol $Cd(OH)_2$ dm^{-3}
0.00	1.2×10^{-5}
0.01	1.3×10^{-6}
0.1	1.3×10^{-6}
1.0	0.7×10^{-5}
5.0	9.0×10^{-5}

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (2) Sodium hydroxide; NaOH; [1310-73-2] (3) Water; H_2O; [7732-18-5]	Scholder, R.; Staufenbiel, E. Z. *anorg. allgem. Chem.* 1941, 247, 259-76
VARIABLES: Concentration of NaOH and temperature.	**PREPARED BY:** T. P. Dirkse

EXPERIMENTAL VALUES:

Table 1

Solubility of $Cd(OH)_2$ in NaOH solutions at 100.0°C.

g NaOH/100 g soln	mg CdO/100 g soln	mol NaOH dm^{-3}	(mol CdO dm^{-3}) x 10^3	solid phase
22.7[a]	18.3[a]			
22.7[b]	18.4[b]	6.8	1.72	$Cd(OH)_2$
30.0[a]	37.8[a]			
30.0[b]	37.7[b]	9.6	3.74	"
36.3[a]	65.9[a]			
36.3[b]	65.6[b]	12.1	6.84	"
39.4[a]	92.0[a]			
39.4[b]	92.5[b]	13.5	9.86	"
40.4[a]	100.0[a]			
40.4[b]	100.7[b]	13.9	10.81	"
42.3[a]	89.2[a]			
42.3[b]	89.5[b]	14.8	9.73	$Na_2[Cd(OH)_4]$
46.3[a]	51.2[a]			
46.3[b]	51.5[b]	16.6	5.75	"
50.0[a]	25.2[a]			
50.0[b]	26.5[b]	18.4	3.03	"

[a] determined after 25 hours

[b] determined after 48 hours

Work was also carried out at 80°C, but no solubility values are given for that temperature. The only information given is the composition of the solid phases.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Solid $Cd(OH)_2$ was added to the NaOH solutions in a silver vessel and refluxed for 1-2 days. In the solid phase, Cd was determined by dissolving the solid in H_2SO_4, and determining the Cd by treatment with dipyridine Cd^{2+} thiocyanate (1). In the liquid phase Cd^{2+} was determined by adding H_2SO_4, precipitating CdS, changing it to $CdSO_4$ and weighing. NaOH content was determined by titration. In some cases the solid phase was identified microscopically.

SOURCE AND PURITY OF MATERIALS:

$Cd(OH)_2$ was prepared by adding a solution of cadmium acetate to boiling concentrated KOH solution. Presumably reagent grade chemicals were used but this is not specifically stated.

ESTIMATED ERROR:

Nothing is stated. The temperature was controlled to ± 0.1°C. The solubility values appear to have an uncertainty of about 3-5%.

REFERENCES:

1. Spacu, G.; Dick, I. Z. *analyt. Chem.* 1928, 73, 279.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (2) Cadmium sulfate; $CdSO_4$; [10124-36-4] (3) Water; H_2O; [7732-18-5]	Akselrud, N. V.; Fialkov, Ya. A. *Ukr. Khim. Zh.* 1950, *16*, 283-95.
VARIABLES: Concentration of $CdSO_4$ at 18.0°C	**PREPARED BY:** T. Michalowski

EXPERIMENTAL VALUES:

Values of $-\log K_s^o$ for $Cd(OH)_2$ at 18.0°C.

mol Cd^{2+} dm^{-3} in liquid phase	pH	$-\log K_s^o$ [a]
0		14.5820[b]
0.1020	7.42	14.4203
0.1382	7.37	14.3842
0.3583	7.19	14.3255
0.5115	7.05	14.4465
1.1298	6.54	15.1198
1.4411	6.28	15.5338

[a] $-\log K_s^o = -2\log K_w - \log [Cd^{2+}] - 2pH$

[b] this value was obtained by graphical extrapolation of the corresponding curve to $[Cd^{2+}] = 0$.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

$Cd(OH)_2$ was added to solutions of $CdSO_4$. The mixtures were shaken in a thermostat until equilibrium was attained. There is no information about the analytical procedures.

SOURCE AND PURITY OF MATERIALS:

$CdSO_4$ was recrystallized twice from water. The $Cd(OH)_2$ was precipitated from a $CdSO_4$ solution and then washed with hot water.

ESTIMATED ERROR:

There is insufficient information in the article to allow the possible error to be estimated.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (2) Sodium perchlorate; $NaClO_4$; [7601-89-0] (3) Water; H_2O; [7732-18-5]	Schindler, P. *Helv. Chim. Acta* 1959, *42*, 2736-42.
VARIABLES: Method of reaching equilibirum at 25°C and at a constant total ionic strength of 3 mol dm^{-3}.	**PREPARED BY:** T. P. Dirkse

EXPERIMENTAL VALUES:

$-\log [H^+]$	$-\log [H^+]^2 / [Cd^{2+}]$
For solutions from which $Cd(OH)_2$ has precipitated.	
8.09 ± 0.01	14.04 ± 0.02
8.29 ± 0.01	14.03 ± 0.03
7.77 ± 0.01	14.03 ± 0.02
8.16 ± 0.01	14.06 ± 0.03
8.15 ± 0.01	14.04 ± 0.03
8.69 ± 0.01	14.04 ± 0.04
8.67 ± 0.01	14.00 ± 0.04
For solutions into which $Cd(OH)_2$(s) dissolves.	
7.80 ± 0.01	13.99 ± 0.02
8.56 ± 0.01	14.04 ± 0.04
7.60 ± 0.01	14.02 ± 0.02

Analysis of the solution was carried out for about 450 hours. The results showed a gradual change over the first 100 hours. After that, the values remained constant.

The above values were converted to log K_{so} values using the following value.

$\log K_w = -14.22 \pm 0.02$ at 25°C in 3 mol dm^{-3} $NaClO_4$ (1).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Two solutions--one containing Cd^{2+} and the other containing OH^- were mixed to precipitate $Cd(OH)_2$. The hydrogen ion concentration (determined by an e.m.f. measurement) of the solution was measured over a period of about 20 days. The Cd^{2+} ion concentration was calculated from the volume and the concentrations of the solutions. The second method involved adding $Cd(OH)_2$ to a 3 mol dm^{-3} aqueous solution of $NaClO_4$ and again measuring the hydrogen ion concentration over a period of time.

SOURCE AND PURITY OF MATERIALS:

Chemically pure materials were used and much care was taken to exclude CO_2.

ESTIMATED ERROR:

The calculated solubility product (concentration product) has an uncertainty of about 10%.

REFERENCES:

1. Ingri, H.; Lagerstrom, G.; Fryaman, M.; Sillen, L. G. *Acta Chem. Scand.* 1957, *11*, 1034.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (2) Hydrogen peroxide; H_2O_2; [7722-84-1] (3) Water; H_2O; [7732-18-5]	Ladeinova, L. V.; Lozhkina, L. G.; Chernysheva, A. M. *Izv. Akad. Nauk SSR, Otd Khim. Nauk* 1961, 12-16.
VARIABLES: Hydrogen peroxide concentration and temperature.	PREPARED BY: T. P. Dirkse

EXPERIMENTAL VALUES:

Table 1

Data on the $Cd(OH)_2$-H_2O_2-H_2O system at 0°C.

Composition of liquid phase in wt %				Composition of liquid phase in wt%			
active O_2	H_2O_2	(CdO) x 10^3	Solid[a] phase	active O_2	H_2O_2	(CdO) x 10^3	solid[a] phase
-----	------	1.6	A	21.18	45.03	7.03	C + D
0.81	1.72	4.19	"	22.14	47.0	5.56	D
2.54	5.40	7.83	A + B	22.85	48.60	1.87	"
4.44	9.44	5.29	B	24.27	51.60	1.86	"
5.42	11.52	5.63	"	26.43	56.19	1.76	"
5.54	11.78	5.52	"	27.44	58.34	5.16	D + E
7.34	15.60	5.07	"	27.47	58.40	4.85	E
9.35	19.88	4.23	"	28.10	59.74	4.43	"
10.06	21.73	5.96	"	28.53	60.65	4.41	"
11.21	23.83	7.28	B + C	32.41	68.90	1.43	"
12.59	26.76	4.52	C	35.66	75.81	0.99	"
13.40	28.50	4.85	"	40.80	86.74	1.04	"
15.45	32.85	4.40	"	44.17	93.91	2.10	"
18.31	38.93	5.18	"				

[a] A = $Cd(OH)_2$; B = $CdO_2 \cdot 2H_2O$; C = $CdO_2 \cdot 1.5H_2O$; D = $CdO_2 \cdot H_2O$; E = $CdO_2 \cdot 0.5H_2O$

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The components were mixed and stirred until equilibrium was reached. Equilibrium was determined by constancy of active oxygen analysis in both solid and liquid phases. Equilibrium was reached in 1.5 - 2 hours. Active oxygen content was determined by titration with 0.1 N $KMnO_4$ in the presence of H_2SO_4. CdO content was determined colorimetrically with dithizone in the liquid phase and gravimetrically by weighing as cadmium pyrophosphate in the solid phase.

SOURCE AND PURITY OF MATERIALS:

Chemically pure $Cd(OH)_2$ and distilled H_2O_2 without stabilizers were used.

ESTIMATED ERROR:

The temperature was controlled to within ±0.5°C. No information is given as to the reproducibility of the results.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (2) Hydrogen peroxide; H_2O_2; [7722-84-1] (3) Water; H_2O; [7732-18-5]	Ladeinova, L. V.; Lozhkina, L. G.; Chernysheva, A. M. *Izv. Akad. Nauk SSR, Otd Khim. Nauk* 1961, 12-16.

EXPERIMENTAL RESULTS, continued--------

Table 2

Data on the $Cd(OH)_2$-H_2O_2-H_2O system at 20°C.

Composition of liquid phase as wt %			
active O_2	H_2O_2[a]	(CdO) x 10^3	Solid phase[b]
-----	------	1.78	A
3.55	7.55	2.91	"
5.62	11.95	3.66	A + B
6.10	12.97	3.58	B
6.32	13.44	1.60	"
6.80	14.47	2.88	"
8.47	18.01	0.26	"
9.61	20.43	2.80	"
10.97	23.32	3.33	"
12.27	26.08	3.41	B + C
13.20	28.05	3.11	C
13.52	28.74	2.84	"
13.37	28.42	3.00	"
13.98	29.72	2.85	"
14.82	31.51	2.83	"
15.56	33.08	2.20	"
16.47	35.02	1.07	"
18.12	38.52	0.63	"
18.64	39.63	1.03	"
21.38	45.45	2.16	"
21.74	46.22	2.42	"
23.43	49.81	2.61	"
24.23	51.51	2.73	"
25.08	53.32	3.34	C + D
25.50	54.21	3.24	D
25.83	54.92	2.92	"
26.79	56.95	2.18	"
27.98	59.48	0.93	"
31.15	66.22	0.96	"
34.21	72.73	2.56	D + E
35.18	74.80	1.09	E
37.41	79.53	0.69	"
40.48	86.06	0.8	"
41.91	89.10	1.58	"

[a] recalculated by compiler

[b] A= $Cd(OH)_2$; B=$CdO_2 \cdot 2H_2O$; C=$CdO_2 \cdot 1.5H_2O$; D=$CdO_2 \cdot H_2O$; E=$CdO_2 \cdot 0.5H_2O$.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Sodium sulfide; Na_2S; [1313-82-2] (3) Water; H_2O; [7732-18-5]	Polyvyanni, I. R.; Milyutina, N.A. *Tr. Inst. Met. Obogashch. Akad. Nauk Kaz. SSR* 1967, *21*, 3-13.
VARIABLES:	**PREPARED BY:**
Concentration of Na_2S at 60.0°C	T. Michalowski

EXPERIMENTAL VALUES:

Solubility of CdO in aqueous Na_2S solutions at 60.0°C

mol Na_2S dm^{-3}	mol CdO dm^{-3}	density of saturated solution, g ml^{-1}
1.45	1.9×10^{-3}	1.109

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The CdO and solvent were equilibrated at 60.0°C for 26 hours.

SOURCE AND PURITY OF MATERIALS:

Reagent grade CdO and Na_2S were used. The Na_2S was recrystallized three times.

ESTIMATED ERROR:

No information is given. The temperature was controlled to within 0.1°C.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Ammonia; NH_3; [7664-41-7] (3) Water; H_2O; [7732-18-5]	Danilov, V. V.; Martinson, I.G.; Ravdel, A. A. *Zh. Prikl ad Khim. (Leningrad)* 1971, *44*, 3-6.
VARIABLES: Temperature and concentration of ammonia.	**PREPARED BY:** T. P. Dirkse

EXPERIMENTAL VALUES:

Solubility of CdO in aqueous ammonia solutions.

mol NH_3 dm^{-3}	(mol Cd dm^{-3}) x 10^2		
	10°C	20°C	30°C
2.18	0.65	0.68	0.70
3.40	1.52	1.59	1.70
4.40	2.61	2.70	2.77
7.10	5.22	4.94	4.46
9.45	5.76	5.54	5.06
11.45	6.20	6.02	5.42

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Solutions were equilibrated for 30 days with intermittent stirring. Equilibrium was approached from both high and low temperatures. Cadmium content was determined by titration with Trilon B at a pH of about 10, using Eriochrome Black T as indicator.

SOURCE AND PURITY OF MATERIALS:

No indication is given.

ESTIMATED ERROR:

No information is given as to how closely the temperature was controlled, nor to how reproducible the analyses were.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Ammonium sulfate; $(NH_4)_2SO_4$; [7783-20-2] (3) Water; H_2O; [7732-18-5]	Kudryaytsev, N. T.; Selivanova, G. A. *Izv. Vyssh. Ucheb. Zaved., Khim. Tekhnol.* 1971, *14*, 835-8.
VARIABLES:	PREPARED BY:
Concentration of ammonium sulfate.	T. Michalowski

EXPERIMENTAL VALUES:

Solubility of CdO in aqueous $(NH_4)_2SO_4$ at 25°C.

$C_{(NH_4)_2SO_4}$/mol dm^{-3}	C_{Cd}/mol dm^{-3}	pH
0	9×10^{-5}	9.2
0.5	0.28	10.5
1.0	0.65	9.5
1.5	0.90	8.9
2.0	1.45	8.65
2.5	1.80	8.40
3.0	2.02	8.35

Additional results, presented only in graphical form, show that in $(NH_4)_2SO_4$ concentrations of 1 and 2 mol dm^{-3}, the solubility of CdO shows a minimum with changing pH (accomplished by adding either H_2SO_4 or NH_4OH). In the 1 mol dm^{-3} solution the minimum is about 0.7 mol dm^{-3} at a pH = 7-10. In the 2 mol dm^{-3} solution it is about 1.4 mol dm^{-3} at a pH = 6-7.

The solid phase in equilibrium with the solutions in the above Table is described as a compound of the type $CdSO_4 \cdot nCd(OH)_2 \cdot mNH_3 \cdot xH_2O$.

Using the water solubility value in the above Table, a value of 2.26×10^{-14} is obtained for the value of $K_{so} = C_{Zn} \cdot (a_{OH^-})^2$.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
No information is given about the preparation and mixing of the solutions. Cadmium content was determined by a complexiметric titration or photometrically using dithizone. The pH of the solutions was measured by using a glass electrode.	Both the CdO and the ammonium sulfate are described as chemically pure..
	ESTIMATED ERROR: No information is given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Sodium hydroxide; NaOH; [1310-73-2] (3) Water; H_2O; [7732-18-5]	Soloveva, V. D.; Svirchevskaya, E. G.; Bobrova, V. V.; Eltsov, N. M. *Tr. Inst. Metal. Obogashch. AN KazSSR*, 1973, *49*, 37-44.
VARIABLES: NaOH concentration and temperature	**PREPARED BY:** T. Michalowski

EXPERIMENTAL VALUES:

Solubility of CdO in NaOH solutions.

Temperature, °C	mol NaOH dm^{-3}	Cd solubility, (mol dm^{-3}) x 10^5	Solid phase
20	2.75	4.45	$Cd(OH)_2$
20	5.10	8.9	"
20	10.25	162.0	"
20	13.08	177.0	"
40	3.0	15.0	$Cd(OH)_2$
40	5.65	57.0	"
40	8.85	131.0	"
40	10.84	320.0	"
105	3.5	71.0	$Cd(OH)_2$
105	7.5	177.0	"
105	10.0	500.0	"
105	12.0	970.0	"
200	2.75	134.0	$Cd(OH)_2$
200	5.0	223.0	"
200	7.5	339.0	"
200	10.0	900.0	"
200	12.0	1070.0	"
200	14.0	1340.0	"
200	16.5	1080.0	$Na_2Cd(OH)_4$
200	18.3	366.0	"

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Apparently the mixtures were equilibrated at the temperature recorded, but no explicit description of the procedure is given.	Analytical grade CdO was used. Nothing is said about the other materials that were used.
	ESTIMATED ERROR: No information is given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium hydroxide; $Cd(OH)_2$; [21041-95-2] (2) Sodium hydroxide; NaOH; [1310-73-2] (3) Water; H_2O; [7732-18-5]	Soloveva, V. D.; Bobrova, V. V.; Orlova, L. F.; Adeyschvili, E. U. *Tr. Inst. Met. Obogashch. AN. Kaz. SSR* 1973, *49*, 45-8.
VARIABLES:	PREPARED BY:
NaOH concentration and temperature.	T. Michalowski

EXPERIMENTAL VALUES:

Solubility of $Cd(OH)_2$ at different temperatures

mol NaOH dm^{-3}	Concentration of cadmium in the solution, (mol dm^{-3}) x 10^5 20°	105°	200°
3.75	4.46	44.6	44.5
5.62	9.00	71.4	125.0
7.50	71.4	178.0	250.0
10.00	90.0	357.0	543.0
11.50	180.0	455.0	580.0
13.35	340.0	803.0	759.0
14.00	338.0	770.0	1160.0
15.65	-----	455.0	990.0
16.85	-----	277.0	786.0
18.75	-----	149.0	290.0

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Apparentlythe mixtures were equilibrated at the temperature recorded but no explicit description of the procedure is given.	$Cd(OH)_2$ was precipitated by the addition of a NaOH solution to a solution of $CdSO_4$. The precipitate was washed and dried and its purity was checked by X-ray diffraction diagrams.
	ESTIMATED ERROR:
	No information is given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Arsenic(V) oxide; As_2O_5; [1303-28-2] (3) Water; H_2O; [7732-18-5]	Omezzine, B. K.; Ariguib-Kbir, N. *Compt. rend.* 1978, *286*, 197-9.
VARIABLES: Solution composition at 25°C.	PREPARED BY: T. P. Dirkse

EXPERIMENTAL VALUES:

Solubility of CdO in aqueous solutions of As_2O_5 at 25°C. [a]

As_2O_5, mass %	As_2O_5 mol/kg H_2O [b]	CdO, mass %	CdO, mol/kg H_2O [b]	Solid phase [c]
0.08	0.0035	trace	- - - - -	
3.85	0.17	0.40	0.033	A
7.85	0.37	0.75	0.064	
11.80	0.59	1.70	0.15	
11.80	0.59	1.72	0.15	A + B
11.85	0.60	1.75	0.16	A + B
11.80	0.59	1.70	0.15	
14.22	0.74	2.20	0.21	B
17.75	0.97	2.42	0.24	
22.00	1.28	3.45	0.36	
22.20	1.30	3.35	0.35	
22.15	1.30	3.42	0.36	B + C
22.10	1.29	3.39	0.35	B + C
22.10	1.29	3.30	0.34	B + C
28.40	1.81	3.40	0.39	
32.60	2.22	3.60	0.44	
39.80	3.06	3.65	0.50	
46.20	4.01	3.70	0.58	C
53.20	5.26	2.80	0.50	
59.80	6.81	2.00	0.41	
65.40	8.68	1.82	0.43	
65.52	8.74	1.85	0.44	C + D
65.50	8.74	1.87	0.45	C + D
66.20	8.84	1.20	0.29	

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

Mixtures were placed in polyethylene flasks and shaken in a thermostat. Equilibrium was determined by analysis. Arsenic content was determined iodometrically, and the cadmium content was determined by a complexiметric titration. The composition of the solid phases was determined by the Schreinemakers' wet-residue method.

SOURCE AND PURITY OF MATERIALS:

No information is given.

ESTIMATED ERROR:

No numerical data are given in the paper but from the data supplied in a personal communication from one of the authors it appears that the error is of the order of 1%

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Cadmium oxide; CdO; [1306-19-0] (2) Arsenic(V) oxide; As_2O_5; [1303-28-2] (3) Water; H_2O; [7732-18-5]	Omezzine, B. K.; Ariguib-Kbir, N. *Compt. rend.* 1978, *286*, 197-9.

EXPERIMENTAL VALUES,CONTD:

Solubility of CdO in aqueous solutions of As_2O_5 at 25°C. [a]

As_2O_5, mass %	As_2O_5 mol/kg H_2O [b]	CdO, mass %	CdO, mol/kg H_2O [b]	Solid phase [c]
68.00	9.48	0.80	0.20	D
70.20	10.25	trace	----	
71.60	10.97	trace	----	

[a] The article contains only a phase diagram. These numerical data were given in a personal communication of Sept. 11, 1982 from Prof. N. Kbir-Arguib.

[b] calculated by the compiler.

[c] A = $5CdO \cdot 2As_2O_5 \cdot 5H_2O$; B = $2CdO \cdot As_2O_5 \cdot 2H_2O$; C = $CdO \cdot As_2O_5 \cdot 4H_2O$;
D = $CdO \cdot 2As_2O_5 \cdot 5H_2O$.