

SOLUBILITIES OF INORGANIC AND ORGANIC COMPOUNDS

**Volume 1
Binary Systems
Part 2**

Edited by

Prof. H. STEPHEN, O.B.E., D.Sc., F.R.I.C.

and

Dr. T. STEPHEN, M.Sc., Ph.D.

**PERGAMON PRESS
OXFORD · LONDON · NEW YORK · PARIS
1963**

PREFACE TO THE ENGLISH EDITION

THE compilation of a manual on solubility presents considerable difficulties in view of the scattered nature of the experimental data and the ever increasing number of published results.

In view of the great need for systematic data on solubilities, the task of compiling such a manual lies not so much in including all data relevant to solutions and solubilities, but in making a selection of the most valuable and proved experimental data. This information should then be presented in as convenient and systematic a form as possible, and in our opinion this Manual will be of value to research workers, teaching establishments and industry.

Additional data compiled after the Russian work was published has been included at the end of Volume 1, part 2.

The publication of this work by Pergamon Press helps to further scientific contact between our two countries.

MOSCOW, DECEMBER 1962

V. V. KAFAROV.

INTRODUCTION

THIS manual containing approximately 5500 pages is a selection from the International Chemical Literature on the Solubilities of Elements, Inorganic Compounds, Metallo-organic and Organic Compounds in Binary, Ternary and Multi-component Systems. A careful survey of the Literature in all languages by a panel of scientists specially appointed for the task by the U.S.S.R. Academy of Sciences, Moscow, has made the compilation of this work possible.

The complete English edition in five separately bound volumes will be published during 1963. Volume I, parts 1 and 2, comprises the solubilities of Elements, Inorganic Compounds, Metallo-organic and Organic Compounds in Binary Systems. Volume II, parts 1, 2 and 3, comprises the solubilities in Ternary and Multi-component Systems.

In order to remove any ambiguity as to the exact structure of a compound, and also to overcome the possibility of misinterpretation resulting from the various types of nomenclature used, as well as the trivial and obsolete names encountered in the wide range of literature consulted, the Editors of this edition have named the compounds in accordance with the recommendations of the Commission on Nomenclature of Organic and Inorganic Chemistry of the International Union of Pure and Applied Chemistry. This enables the user to combine, compare and evaluate without difficulty the data obtained from a variety of sources on the same or closely related compounds.

The systematic arrangement of the compounds and the solvents together with the distinct and separate—Binary, Ternary and Multi-component Systems—ensures that the information required may be easily located. Each volume, a complete work in itself, has been provided with two separate comprehensive indexes of formulae and names of compounds. These indexes, presented as those used in *Chemical Abstracts*, are therefore familiar and internationally approved.

GUIDE TO THE PRESENTATION OF VOLUME ONE, PARTS 1 AND 2

Table 1 (pp. 5-79) lists the solubilities of various substances in water and is followed by Tables (pp. 80-1603) giving either the mutual solubilities of binary systems or the solubilities of different compounds. These Tables are numbered consecutively in the top

left hand corner, the numbers locating the required compound in the Index published at the end of Volume 1, part 2. The references to the original literature from which the data has been selected are arranged numerically on pp. 1604-1645 (in Volume 1, part 2). The numbers referring to this literature are in square brackets in the top right hand corner of each Table heading except Table 1 where they are given in the second to last column.

Tables 1-1694 inclusive deal with Binary Systems in which Water is one of the components. Tables 1695 *et seq.* are devoted to Binary systems consisting of components other than Water. The latter Tables are arranged according to the chemical formula of the component with the lower number of carbon atoms in the molecule irrespective of whether that component is the solvent or the compound dissolved.

The solubilities given are based on the formula appearing in the Table. Thus, if the solubility takes into account the water of crystallization, then the formula of the hydrate is given in the Table.

The solubilities are expressed in Wt. %; Vol. %; Mol. % or g/l.; the last unless otherwise stated refers to the solubility in grams per litre of solvent. Temperature "t" is in degrees Centigrade and Pressure "p" in mm of mercury. The letters A and/or B, appearing at the head of columns in the Tables and Formula index pp. 1668-1763 refer to the compound dissolved and solvent respectively named in the Table headings.

In two Tables (pp. 1646-1667) details are given of equilibrium conditions in solid phases for systems with aqueous and non-aqueous solvents. The formulae of the different solid phases in equilibrium with the saturated solution for each compound listed are given and in addition to the transition temperatures, the solubility of the substance being investigated is shown.

Formula Index (pp. 1668-1763. Vol. I part 2) The formulae of the compounds (components A) have been divided into two sections (1) Inorganic, and Metallo-organic compounds and (2) Carbon compounds. The former are arranged in order of the periodic Classification of the Elements and these are followed by the formulae of Carbon compounds analysed in order of increasing number of carbon atoms. Opposite each entry is given the component B (solvent) and the Table number referring to the particular binary system.

Index of Compounds (From p. 1764, Vol. 1, part 2) The names of the compounds arranged alphabetically conform to the I.U.P.A.C. Rules. Inorganic and Metallo-organic compounds are listed under the Elements in Alphabetical order except that Acids,

Hydrazine, Hydroxylamine, and Thionyl, Sulfonium and Uranyl compounds have separate headings. Ferrous and ferric compounds are under Iron; stannous and stannic under Tin; cuprous and cupric under Copper; aurous and auric under Gold. Names like bicarbonate and bisulfate have not been used (the number of acidic Hydrogens being indicated instead). Prefixes like di-, tri-, meta-, pyro-, etc. as well as chloro-, bromo-, nitro-, etc. are alphabetized. Binary compounds of Hydrogen (except NH_3 and H_2O) are listed under Hydrogen e.g. Hydrogen Chloride, Hydrogen Fluoride, etc. Metallic Complexes, e.g. amino and related compounds as well as chloroplatinates, molybdophosphates, hexacyanoferrates, etc. are listed under the element in question and alphabetically arranged, together with the simpler salts.

The Organic compounds are arranged within the same alphabet by PARENT COMPOUND, the substituting atoms and groups e.g. chloro-, bromo-, methyl-, nitro-, etc. being arranged alphabetically under this name. By this means all compounds structurally related are brought together for purposes of comparison and easy location. But in addition, the index includes the common names of industrial or commercial importance as well as those used in teaching establishments and laboratories. In many cases information has been indexed additionally under these names or else adequate cross references are given.

ACKNOWLEDGMENT

THE publishers and editors express their appreciation to Colonel M. Konarski for rendering valuable assistance during the preparation of this work for press, and to Mr. David Platt for his assistance in providing the exact English equivalent for some of the Russian terms.

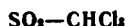
Oxford, April 1963

H. and T. STEPHEN

№ 3751

SULFUR DIOXIDE - CHLOROFORM

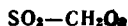
[1224]



Solubility A, g/l.	<i>t</i>	<i>P</i>	Solubility A, g/l.	<i>t</i>	<i>P</i>
0.701	0	2.7	0.669	25	5.7
1.790	0	5.6	1.712	25	12.9
6.982	0	22.0	6.728	25	48.0
30.97	0	90.2	29.54	25	200.2
82.17	0	219.6	78.39	25	488.8

№ 3752

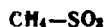
[1758]

**SULFUR DIOXIDE -
FORMIC ACID**

Solubility A, Wt. %	<i>t</i>	<i>P</i>
45.1	0	725

№ 3753

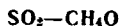
[584]

METHANE - SULFUR DIOXIDE

Solubility A cc/g B	<i>t</i>	<i>P</i> abs. at
12.6	28.3	35.0
5.4	28.3	17.2
11.8	-32.0	35.0
6.3	-32.0	18.7
5.9	-32.0	16.9

№ 3754

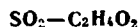
[410, 411]

**SULFUR DIOXIDE -
METHANOL**

Solubility A, Wt. %	<i>t</i>
71.1	0.0
59.9	7.0
52.2	12.3
44.0	17.8
31.7	26.0

№ 3755

[1758]

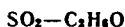
**SULFUR DIOXIDE -
ACETIC ACID**

Solubility A, Wt. %	<i>t</i>	<i>P</i>
49.0	0	725



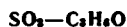
Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p
A	B		A	B	
0.0	100.0	16.6	33.5	66.5	-40.4
7.7	92.3	11.5	46.4	53.6	-38.0
9.6	90.4	8.3	59.6	40.4	-38.7
13.1	86.9	-44.1	63.3	36.7	-39.2
18.0	82.0	-44.2	78.3	21.7	-75.6
24.7	75.3	-41.9	100.0	0.0	-72.7

**SULFUR DIOXIDE -
ETHANOL**



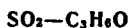
Solubility A, Wt. %	t
53.5	0.0
45.0	7.0
39.9	12.3
32.8	18.2
24.4	26.0

**SULFUR DIOXIDE -
ACETONE**

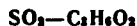


Solubility A, Wt. %	t	P
67.4	0	725

SULFUR DIOXIDE - ACETONE



Expressed as	t	P	Expressed as	Expressed as	t	P	Expressed as
0.0	25	229.2	Mol. %	44.5	25	740.1	Mol. %
14.2	25	304.2		51.9	25	994.3	
23.7	25	381.8		276.4	10	760	
30.8	25	473.4		216.4	25	760	cc/cc B
36.8	25	574.0		171.3	40	760	



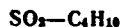
Expressed as	<i>t</i>	<i>P</i>	Expressed as	Expressed as	<i>t</i>	<i>P</i>	Expressed as
0.0	25	213.4	Mol. %	45.6	25	894.3	Mol. %
14.3	25	324.4		49.7	25	1038.5	
25.4	25	456.7		254.9	10	760	
33.6	25	602.5		182.1	25	760	
40.6	25	754.4		133.8	40	760	
							cc/cc B

SULFUR DIOXIDE — ACETIC ANHYDRIDE



Solubility A, g/l.	<i>t</i>	Solubility A, g/l.	<i>t</i>
196	—5	114	15
148	0	106	20
136	5	99	25
122	10	90	30

SULFUR DIOXIDE — BUTANE



Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>
A	B		A	B	
9.2	90.8	—64.0	69.3	30.7	—5.1
33.9	66.1	—17.2	70.0*	30.0	—4.7
36.1	63.9	—16.0	73.6	26.4	—4.7
38.4	61.6	—15.0	85.9	14.1	—8.0
56.4	43.6	—6.8	95.3	4.7	—26.0

* crit.pt.

№ 3763

SULFUR DIOXIDE – PYRIDINE
 $\text{SO}_2 - \text{C}_5\text{H}_5\text{N}$

[941]

Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p
B	A		B	A		B	A	
0.0	100.0	−72.4	35.1	64.9	−31.8	65.0	35.0	−21.6
4.2	95.8	−74.5	41.3	58.7	−17.8	71.0	29.0	−32.3
8.5	91.5	−77.2	45.2	54.8	−11.6	75.7	24.3	−42.5
13.2	86.8	−82.0	49.2	50.8	−7.0	79.2	20.8	−50.8
16.0	84.0	−87.3	49.8	50.2	−7.4	80.5	19.5	−54.0
17.0	83.0	−84.5	50.8	49.2	−7.4	83.3	16.7	−52.0
23.2	76.8	−68.0	53.0	47.0	−7.4	89.6	10.4	−47.4
25.4	74.6	−61.8	53.9	46.1	−8.6	100.0	0.0	−41.5
26.6	73.4	−59.0	56.2	43.8	−11.1			
30.6	69.4	−46.6	57.5	42.5	−11.2			

№ 3764

[456]

**PICRIC ACID –
SULFUR DIOXIDE**
 $\text{C}_6\text{H}_3\text{N}_3\text{O}_7 - \text{SO}_2$

Solubility A, Wt. %	t
27.54	20

№ 3765

[456]

**p-CHLORONITROBENZENE –
SULFUR DIOXIDE**
 $\text{C}_6\text{H}_4\text{NO}_2\text{Cl} - \text{SO}_2$

Solubility A, Wt. %	t
38.0	20

№ 3766

[456]

**DINITROBENZENE –
SULFUR DIOXIDE**
 $\text{C}_6\text{H}_4\text{N}_2\text{O}_4 - \text{SO}_2$

Solubility A, Wt. %	t
51.0	20

№ 3767

SULFUR DIOXIDE – CHLOROBENZENE
 $\text{SO}_2 - \text{C}_6\text{H}_5\text{Cl}$

[964]

Expressed as	t	P	Expressed as	Expressed as	t	P	Expressed as
0.0	25	111.6	Mol. %	169.3	0	760	cc/cc B
6.02	25	274.9		97.4	10	760	
11.63	25	506.3		59.14	20	760	
16.66	25	669.4		29.92	40	760	
18.76	25	778.3		22.88	50	760	
22.02	25	895.4		17.83	60	760	
26.35	25	1048.5		12.23	80	760	

№ 3768 SULFUR DIOXIDE – NITROBENZENE [1232]
 $\text{SO}_2 - \text{C}_6\text{H}_5\text{NO}_2$

Solubility A, g/l.	<i>t</i>	Solubility A, g/l.	<i>t</i>
311.4	15	132.0	40
267.4	20	98.7	50
227.9	25	78.6	60
190.0	30		

№ 3769 [456]

**NITROBENZENE –
SULFUR DIOXIDE**



Solubility A, Wt. %	<i>t</i>
50	20

№ 3770 [1232]

SULFUR DIOXIDE – BENZENE



Solubility A, g/l.	<i>t</i>
127.5	30
82.9	40
60.3	50
34.0	60

№ 3771

SULFUR DIOXIDE – BENZENE

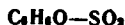
[964]



Solubility A,	<i>t</i>	<i>p</i>	Expressed as	Solubility A,	<i>t</i>	<i>p</i>	Expressed as
0.0	25	93.7	Mol. %	29.09	25	1012.2	Mol. %
6.18	25	294.3		126.4	10	760	
12.47	25	493.7		70.01	25	760	
17.83	25	663.7		43.01	40	760	
22.52	25	808.9		32.63	50	760	
26.05	25	923.2		25.36	60	760	cc/cc B,

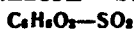
№ 3772 [456]

PHENOL – SULFUR DIOXIDE



Solubility A, Wt. %	<i>t</i>
28.0	20

№ 3773 1, 4 - BENZENEDIOL - SULFUR DIOXIDE [472]



Solubility A, Wt. %		Solubility A, Wt. %	
	<i>t</i>		<i>t</i>
0.88	63.0	7.67	134.2
1.20	73.5	9.35	136.7
2.13	89.2	11.74	141.4
4.27	117.6	12.97	145.0
5.36	123.3		

№ 3774

[456]

**NITROANILINE -
SULFUR DIOXIDE**

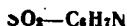


Solubility A, Wt. %	<i>t</i>
13.0	20

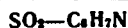
№ 3775

SULFUR DIOXIDE - 2-METHYLPYRIDINE

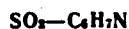
[941]



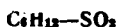
Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p
B	A		B	A		B	A	
0.0	100.0	-72.4	35.9	64.1	-19.3	62.8	37.2	-36.9
2.2	97.8	-74.0	36.6	63.4	-18.7	64.1	35.9	-39.7
4.8	95.2	-75.0	39.5	60.5	-17.7	66.7	33.3	-44.0
5.5	94.5	-75.3	40.0	60.0	-17.8	68.2	31.8	-47.7
7.6	92.4	-76.8	40.7	59.3	-17.9	70.2	29.8	-52.6
8.0	92.0	-76.2	41.5	58.5	-17.6	71.8	28.2	-55.5
9.7	90.3	-66.6	42.0	58.0	-18.0	73.5	26.5	-59.8
12.8	87.2	-57.2	43.7	56.3	-18.7	75.0	25.0	-63.4
13.7	86.3	-51.3	45.5	54.5	-19.5	76.6	23.4	-69.2
16.8	83.2	-43.2	46.3	53.7	-20.1	77.8	22.2	-73.5
16.9	83.1	-42.8	46.8	53.2	-20.0	79.3	20.7	-78.9
20.7	79.3	-36.5	48.3	51.7	-19.6	79.7	20.3	-78.4
21.0	79.0	-36.2	49.4	50.6	-19.5	80.3	19.7	-77.6
22.9	77.1	-33.5	50.0	50.0	-19.4	81.7	18.3	-74.6
25.4	74.6	-29.5	51.3	48.7	-19.8	83.8	16.2	-73.0
29.2	70.8	-25.6	53.4	46.6	-21.5	90.4	9.6	-67.9
29.8	70.2	-25.1	55.8	44.2	-24.6	100.0	0.0	-64.2
33.9	66.1	-20.8	59.5	40.5	-30.6			



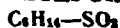
Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p
B	A		B	A		B	A	
0.0	100.0	-72.4	43.9	56.1	-25.8	71.5	28.5	-50.3
4.1	95.9	-76.6	45.0	55.0	-23.2	74.4	25.6	-56.2
7.7	92.3	-78.9	46.9	53.1	-19.2	75.8	24.2	-60.0
13.4	86.6	-84.7	48.2	51.8	-16.9	77.7	22.3	-63.7
15.4	84.6	-86.9	49.7	50.3	-15.0	79.0	21.0	-66.8
18.7	81.3	-76.0	51.5	48.5	-15.0	80.0	20.0	-62.8
25.9	74.1	-59.1	53.8	46.2	-16.3	81.4	18.6	-58.4
26.5	73.5	-57.1	56.1	43.9	-19.5	85.9	14.1	-44.6
32.3	67.7	-46.7	59.8	40.2	-25.3	90.3	9.7	-33.9
35.9	64.1	-39.8	63.4	36.6	-31.7	94.5	5.5	-26.4
37.3	62.2	-36.0	65.8	34.2	-36.8	100.0	0.0	-18.3
38.2	61.8	-35.1	68.3	31.7	-41.9			



Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p	Mutual Solubility, Mol. %		m.p
B	A		B	A		B	A	
0.0	100.0	-72.4	23.4	76.6	-35.9	44.7	55.3	1.5
1.1	98.9	-73.4	24.0	76.0	-33.7	45.9	54.1	3.8
2.2	97.8	-74.0	24.8	75.2	-33.8	46.7	53.3	4.8
3.4	96.6	-74.8	26.9	73.1	-30.8	49.0	51.0	5.2
4.3	95.7	-75.5	27.8	72.2	-29.1	49.5	50.5	5.0
4.9	95.1	-74.0	28.6	71.4	-27.8	51.0	49.0	4.8
6.0	91.0	-68.0	29.5	70.5	-28.2	54.4	45.6	3.4
6.6	93.4	-65.4	29.7	70.3	-27.8	55.9	44.1	2.3
6.5	93.5	-65.0	29.9	70.1	-27.0	58.3	41.7	0.0
7.2	92.8	-62.5	30.9	69.1	-27.6	61.4	38.6	-5.1
8.8	91.2	-60.3	31.2	68.8	-27.2	64.0	36.0	-10.0
9.7	90.3	-59.2	31.5	68.5	-26.6	67.1	32.9	-15.0
10.0	90.0	-59.2	32.2	67.8	-27.0	68.9	31.1	-19.8
11.4	88.6	-56.2	32.7	67.3	-26.4	69.6	30.4	-24.0
11.8	88.2	-56.4	33.5	66.5	-24.8	70.0	30.0	-24.9
14.5	85.5	-51.2	35.2	64.8	-21.2	72.6	27.4	-20.8
14.8	85.2	-51.5	36.5	63.5	-17.3	76.0	24.0	-16.5
16.1	83.9	-48.0	37.3	62.7	-14.7	79.8	20.2	-12.5
18.0	82.0	-45.0	38.4	61.6	-12.8	83.5	16.5	-8.3
18.8	81.2	-43.8	39.5	60.5	-9.3	91.0	9.0	-3.3
20.6	79.4	-40.9	41.2	58.8	-5.4	94.9	5.1	0.0
21.5	78.5	-38.7	41.7	58.3	-4.2	100.0	0.0	3.5



Mutual Solubility, Wt. %		<i>t</i>	Mutual Solubility, Wt. %		<i>t</i>
A	B		A	B	
6.0	94.0	-8.5	40.8	59.2	13.5
7.8	92.2	-6.0	59.1	40.9	11.3
12.1	87.9	4.0	65.0	35.0	11.0
16.8	83.2	8.8	77.0	23.0	1.5
34.6	65.4	13.3	82.0	18.0	-1.0



Mutual Solubility, Wt. %		<i>t</i>	Mutual Solubility, Wt. %		<i>t</i>	Mutual Solubility, Wt. %		<i>t</i>
A	B		A	B		A	B	
0.0	100.0	-72.8	18.5	81.50	9.9	75.5	24.5	-3.3
1.0	99.0	-61.5	32.4	67.6	10.1	84.1	15.9	-19.0
3.3	96.7	-20.3	41.0	59.0	10.0	88.0	12.0	-28.1
5.3	94.7	7.0	57.3	42.7	7.1	88.4	11.6	-30
7.3	92.7	8.6	61.5	38.5	7.0	88.8	11.2	-31
11.75	88.25	9.0	69.3	30.7	3.0	100.0	0.0	-93.7



Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>
A	B		A	B		A	B	
17.9	82.1	-53.0	63.5	36.5	10.6	90.0	10.0	6.5
27.5	72.5	-22.0	65.0	35.0	10.0	91.7	8.3	3.8
30.0	70.0	-17.0	72.0*	28.0	10.2	92.5	7.5	2.5
54.0	46.0	8.0	73.7	26.3	10.2	96.5	3.5	-10.0
58.0	42.0	9.9	85.5	14.5	9.8	97.5	2.5	-20.0



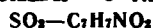
Solubility A, Wt. %	<i>t</i>
40	20

* crit.pt.



Solubility A, Wt. %	<i>t</i>
17.0	20

№ 3783 SULFUR DIOXIDE — o-NITROTOLUENE [1232]



Solubility A, g/l.	t	Solubility A, g/l.	t
290.8	15	118.5	40
236.0	20	87.2	50
192.2	25	68.8	60
160.7	30		

№ 3784 [1232]

SULFUR DIOXIDE — TOLUENE



Solubility A, g/l.	t
217.5	20
170.4	25
124.4	30
93.6	40
77.2	50
54.7	60

№ 3785

[2133]

SULFUR DIOXIDE — TOLUENE

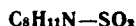


Mutual Solubility, Wt. %		t
A	B	
21.64	78.36	17
24.21	75.79	21
34.56	65.44	21
54.50	45.50	13.5
72.07	27.93	7
92.95	7.05	-25

№ 3786

N, N-DIMETHYLANILINE — SULFUR DIOXIDE

[392]

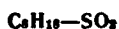


Mutual Solubility, Mol. %		t	Mutual Solubility, Mol. %		t	Mutual Solubility, Mol. %		t
A	B		A	B		A	B	
0.0	100.0	-75.0	31.4	68.6	-17.1	66.9	33.1	10.9
9.1	90.9	-77.5	33.4	66.6	-10.5	69.5	30.5	9.2
13.3	86.7	-81.1	34.9	65.1	-8.5	74.9	25.1	5.3
16.1	83.9	-85.1	37.6	62.4	-1.1	78.1	21.9	2.3
17.8	82.2	-90.1	42.4	57.6	7.1	83.8	16.2	-4.5
19.8	80.2	-72.5	43.5	56.5	10.7	85.7	14.3	-6.8
22.1	77.9	-59.1	47.4	52.6	12.1	88.5	11.5	-3.8
24.8	75.2	-44.6	50.4	49.6	12.4	91.8	8.2	-0.5
25.1	74.9	-41.3	58.7	41.3	12.6	93.4	6.6	-0.8
27.4	72.6	-30.1	64.9	35.1	11.5	100.0	0.0	2.0
28.8	71.2	-24.4	65.1	34.9	11.9			

№ 3787

OCTANE – SULFUR DIOXIDE

[1781]



Mutual Solubility Wt. %		<i>t</i>	Mutual Solubility, Wt. %		<i>t</i>
A	B		A	B	
2.42	97.58	—10.8	61.37	38.63	19.81
3.39	96.61	—3.6	76.95	23.05	0.7
17.26	82.74	24.25	87.44	12.56	—18.6
50.00	50.00	26.85	96.34	3.66	—19.7

№ 3788

[456]

№ 3789

[456]

NAPHTHALENE – SULFUR DIOXIDE**PHENYLPYRROLE –
SULFUR DIOXIDE**

Solubility A, Wt. %	<i>t</i>
23.0	20

Solubility A, Wt. %	<i>t</i>
15.0	20

№ 3790

[456]

№ 3791

[456]

**1 - PHENYL - 1, 3 - BUTANEDIONE
– SULFUR DIOXIDE****BROMOCAMPHOR –
SULFUR DIOXIDE**

Solubility A, Wt. %	<i>t</i>
43.0	20

Solubility A, Wt. %	<i>t</i>
61.0	20

№ 3792

[1758]

**SULFUR DIOXIDE –
CAMPHOR
 $\text{SO}_2-\text{C}_{10}\text{H}_{16}\text{O}$**

Solubility A, Wt. %	<i>t</i>	<i>p</i>
46.80	0	725

№ 3793

DECAHYDRONAPHTHALENE - SULFUR DIOXIDE

[2133]

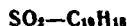


Mutual Solubility, Wt. %		<i>t</i>	Mutual Solubility, Wt. %		<i>t</i>
A	B		A	B	
1.62	98.38	-14.5	13.80	86.20	38.0
2.86	97.14	0.5	27.34	72.66	50.75
5.53	94.47	18.0	52.48	47.52	51.50
9.72	90.28	28.5	81.39	18.61	22.25

№ 3794

SULFUR DIOXIDE - DECAHYDRONAPHTHALENE

[1779]

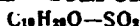


Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>
A	B		A	B		A	B	
8.77	91.23	-14.9	51.67	48.33	35.5	86.58	13.42	41.65
20.93	79.07	3.95	60.63	39.37	40.4	90.78	9.22	39.95
35.06	64.94	25.20	70.23	29.77	41.35	95.15	4.85	26.8
46.70	53.30	32.6	77.72	22.28	41.8	96.37	3.63	22.4

№ 3795

[456]

MENTHOL - SULFUR DIOXIDE

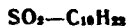


Solubility A, Wt. %	<i>t</i>
27.0	20

№ 3796

SULFUR DIOXIDE - DECANE

[1785]



Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>	Mutual Solubility, Mol. %		<i>t</i>
A	B		A	B		A	B	
13.3	86.7	-23.0	54.6	45.4	29.0	93.0	7.0	34.4
29.8	70.2	0.0	73.8	26.2	37.0	93.5	6.5	33.8
35.0	65.0	7.5	76.0*	24.0	37.3	94.1	5.9	32.8
40.0	60.0	14.1	81.3	18.7	37.3	99.0	1.0	0.4
50.5	49.5	26.0	82.7	17.3	37.2			

* crit.pt.

№ 3797

[456]

CARBAZOLE – SULFUR DIOXIDE

Solubility A, Wt. %	t
3.0	20

№ 3798

[456]

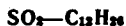
**PHENOTHIAZINE –
SULFUR DIOXIDE**

Solubility A, Wt. %	t
21.0	20

№ 3799

SULFUR DIOXIDE – DODECANE

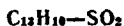
[1785]



Mutual Solubility, Mol. %			t	Mutual Solubility, Mol. %			t	Mutual Solubility, Mol. %			t
A	B			A	B			A	B		
25.7	74.3	-1.0		70.5	29.5	41.6		91.8	8.2	46.4	
39.2	60.8	14.5		75.2	24.8	44.0		95.0	5.0	41.8	
54.3	45.7	31.1		80.4	19.6	45.3		97.8	2.8	30.2	
50.6	49.4	36.0		86.0*	14.0	47.3					
65.0	35.0	40.3		87.8	12.2	47.3					

№ 3800

[456]

FLUORENE – SULFUR DIOXIDE

Solubility A, Wt. %	t
24.0	20

№ 3801

[456]

**N-BENZYLIDENEANILINE –
SULFUR DIOXIDE**

Solubility A, Wt. %	t
53.0	20

№ 3802

ANTHRAQUINONE – SULFUR DIOXIDE (LIQUID)

[472]



Mutual Solubility, Wt. %			t	Mutual Solubility, Wt. %			t	Mutual Solubility, Wt. %			t
A	B			A	B			A	B		
0.64	99.36	3.96		3.54	96.46	101.4		8.76	91.24	160.0	
0.87	99.13	51.5		4.06	95.94	106.3		11.27	88.73	179.0	
1.70	98.30	67.9		4.21	95.79	118.7		15.47	84.53	183.7	
2.19	97.81	82.4		5.30	94.70	118.5					
2.73	97.27	92.1		7.00	93.00	141.6					

* crit.pt.