PHYSICAL PROPERTIES OF SULFUR COMPOUNDS

A LITERATURE REVIEW--1956-1960

by

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Structural Formula and Nomenclature

The physical property tables include, for each compound, its structural formula and preferred name. The structures are simplified by omitting the hydrogen atoms. Double bonds are indicated where applicable. Thus, benzene would be  while cyclohexane would be  .

The name listed for each compound is according to the nomenclature system selected for use in these surveys. This system involves naming the structure as though it were a hydrocarbon and then indicating sulfur in place of carbon with the term "thia". This system applies to all of the compounds except the RSH compounds, which are named as thiols, and the simple thiophenes.

Arrangement of Compounds

The compounds are arranged in the tables, first, according to their type in the following order:

Thiols
Sulfides, including cyclic sulfides and hydrogenated thiophenes
Disulfides
Thiophenes

Within each type, the compounds are arranged by applying the following rules:

Rule 1. Compounds within each type are arranged in ascending number of carbon atoms.
Example: C_1, then C_2, then C_3, ...C_n ..

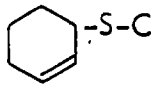
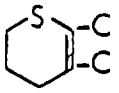
Rule 2. Compounds within each carbon-number group are arranged in descending hydrogen numbers.
Example: $C_5H_{12}S$, then $C_5H_{10}S$, and then C_5H_8S.....

Rule 3. Within a formula group, the compounds are arranged as paraffins, olefins, cyclics, and aromatics in that order.
Example: See Figure 1.

Rule 4. Compounds conforming to the above rules are arranged by increasing branching or complexity. Thus, straight chains precede branched chains and methyl branching precedes ethyl branching which precedes dimethyl. Large rings precede small rings.
Example: See Figure 1.

Rule 5. Of the compounds conforming to the above rules, the position number of the sulfur is arranged in ascending order.
Example: See Figure 1.

Rule 6. If sulfur numbers are the same, a sulfur atom on a chain is placed before one in the ring.

Example:  before 

1-(1-Thiaethyl)-2-cyclohexene

2,3-Dimethyl-1-thia-2-cyclohexene

Rule 7. Where there is more than one compound with the same sulfur position number, the compound with the lowest numbered double bond comes first.

Rule 8. When both the sulfur and the double bond position numbers are the same, the position number of the smallest substituent radical is used.

References

Each set of properties is followed by a reference giving the name of the investigators and the year of publication. Because of space limitations, "et al" is used when there are more than two authors. The complete reference is included in the alphabetical list of references at the end of the table. When the authors have published more than one article in a year, a letter following the year is used to key the table listing to the proper reference. If data were obtained from a secondary source, the secondary source is listed as part of the reference.

Figure 1. - Examples of arrangement of compounds in tables.

$C_5H_{12}S$ THIOLS	$C_5H_{10}S$ SULFIDES
1-Pentanethiol	2-Thia-4-hexene
2-Pentanethiol	3-Thia-4-hexene
3-Pentanethiol	3-Thia-5-hexene
2-Methyl-1-butanethiol	4-Methyl-2-thia-4-pentene
3-Methyl-1-butanethiol	2-Methyl-3-thia-1-pentene
2-Methyl-2-butanethiol	Thiacyclohexane
3-Methyl-2-butanethiol	2-Methylthiacyclopentane
2,2-Dimethyl-1-propanethiol	2,4-Dimethylthiacyclobutane
	2,2,3-Trimethylthiacyclopropane

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Methanethiol	6							Nakada (1957)
C-SH	Retention volume: Spencer et al. (1958)							
Ethanethiol	34.5-35.8				1.4312	20/D		Landa et al. (1959)
	37							Feher, Vogelbruch (1958)
C-C-SH	32.9	704.1			1.42418	25/6678Å		Mathias, Filho (1958)
					1.42754	25/5893Å		
					1.42759	25/5876Å		
					1.43001	25/5461Å		
					1.43342	25/5016Å		
					1.43632	25/4713Å		
					1.43915	25/4471Å		
					1.44067	25/4358Å		
	37							Ping-Fang, Wan-Yi (1958)
	34.4-4.6	760						Shostakovskii et al. (1955)
	Dissociation constant: Danehy, Noel (1960) Dipole moment: Mathias, Filho (1958) Retention volume: Spencer et al. (1958) Heat of combustion: McCullough et al. (1957)							
1-Propanethiol	67.5							Karchmer (1959)
	63.5	701.5						Mathias, Filho (1958)
	67.72	760					1/ -113.15	Pennington et al. (1956) B
C-C-C-SH	67.4-7.6	760						Shostakovskii et al. (1955)
	Retention volume: Karchmer (1959); Spencer et al. (1958) Elution time: Amberg (1958) Heats of vaporization, fusion, combustion, vapor pressure: Pennington et al. (1958) B Dipole moment: Mathias, Filho (1958) Heat of oxidation: Sunner (1955) C ; Sunner, Wadso (1958)							
2-Propanethiol	58							Karchmer (1959)
	49.8	696.2						Mathias, Filho (1958)
C-C-C SH	Retention volume: Karchmer (1959); Spencer et al. (1958) Elution time: Amberg (1958) Dipole moment: Mathias, Filho (1958)							
2-Propynethiol	33-5	97						Sato, Miyamoto (1956)
C≡C-C-SH								
1-Butanethiol	97.6							Karchmer (1959)
	62	140			1.4332	25/D		Parham et al. (1959) B
	95.7	703.0						Mathias, Filho (1958)
C-C-C-C-SH	96-97	715						Fontijin, Spinks (1957)
	98-9							Fukui et al. (1957)
	97.0-8.0	759	0.8403	20/4	1.4430	20/D		Obolentsev et al. (1957)
	98.454	760					1/ -115.68	Scott et al. (1957)
	82-6							Gilman, Eidt (1956)
	98	730			1.4472	10/D		Huckel, Nabih (1956)
	98.6-99.0							Shostakovskii et al. (1955)
	Retention volume: Karchmer (1959); Spencer et al. (1958) Water solubility: Sakodynskii, Babkov (1959) Elution time: Amberg (1958) Heats of combustion, vaporization: Hubbard et al. (1958) B Dipole moment: Mathias, Filho (1958) Heat capacity, heat of fusion, vapor pressure: Scott et al. (1957)							
2-Butanethiol	84-4.5	760			1.4380	20/D		Asinger et al. (1959)
	35.5	130						Mathias, Filho (1958)
C-C-C-C SH	84.981	760					1/ -140.13	McCullough et al. (1958)

1/ Triple point.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Butanethiol -- Continued C-C-C(SH)-C								
	Water solubility: Sakodynskii, Babkov (1959) Heats of combustion, vaporization: Hubbard et al. (1958) B Heat capacity, heat of fusion, vapor pressure: McCullough et al. (1958) Retention volume: Spencer et al. (1958)							
2-Methyl-1-propanethiol C-C(C)-C-SH	87.6 40.2 100-1.5 88.51 100-1.5 100-1.5	132.2 752 760 752 752	0.8338 .8338 .8338	20/4 20/4 20/4	1.4467 1.4467 1.4467	20/D 20/D 20/D	1/-144.84	Karchmer (1959) Mathias, Filho (1958) Obolentsev et al. (1958) A Scott et al. (1958) Obolentsev et al. (1957) Obolentsev et al. (1956)
	Retention volume: Karchmer (1959); Spencer (1958) Elution time: Amberg (1958) Heats of combustion, vaporization: Hubbard et al. (1958) B Dipole moment: Mathias, Filho (1958) Heat of fusion, heat capacity, vapor pressure: Scott et al. (1958)							
2-Methyl-2-propanethiol C(C)(C)-C-SH	65 64-5.5 61.6 67	699.4						Karchmer (1959) Kresze, Uhlich (1959) Mathias, Filho (1958) Ping-Fang, Wan-Yi (1958)
	Retention volume: Karchmer (1959); Spencer et al. (1958) Elution time: Amberg (1958) Heats of combustion, vaporization: Hubbard et al. (1958) B Dipole moment: Mathias, Filho (1958)							
2-Methyl-2-propene-1-thiol C=C(C)-C-SH	92-3							Meyers, Ritter (1958)
1-Pentanethiol C-C-C-C-C-SH	126 122.9 114-16	697.5			1.44078 1.43391 1.44395 1.44928 1.44194 1.45457	25/6678Å 25/5893Å 25/5876Å 25/5016Å 25/4713Å 25/4471Å		Karchmer (1959) Mathias, Filho (1958) Geigy (1957)
	Retention volume: Karchmer (1959); Spencer et al. (1958) Elution time: Amberg (1958) Dipole moment: Mathias, Filho (1958) Heat of oxidation to disulfide: Sunner, Wadso (1958); Sunner 1955 C Heat of combustion: Sunner (1955) B							
3-Pentanethiol C-C-C(SH)-C-C	112-113	760			1.4459	20/D		Asinger et al. (1959)
2-Methyl-1-butanethiol C-C-C(C)-C-SH	119.0	760	.84654 .84196 .83739	20/4 25/4 30/4	1.44448 1.44184 1.43920 1.44509 1.44245 1.43982 1.44767 1.44505 1.44244 1.45003 1.44740 1.44478 1.45291	20/6678.1A 25/6678.1A 30/6678.1A 20/6562.8A 25/6562.8A 30/6562.8A 20/5892.6A 25/5892.6A 30/5892.6A 20/5460.7A 25/5460.7A 30/5460.7A 20/5015.7A		API RP 48 (unpublished)

1/ Triple point.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Methyl-1-butane-thiol -- Continued					1.45029	25/5015.7A		
					1.44766	30/5015.7A		
					1.45427	20/4861.3A		
					1.45164	25/4861.3A		
					1.44900	30/4861.3A		
					1.45957	20/4358.3A		
					1.45694	25/4358.3A		
					1.45429	30/4358.3A		
	Surface tension, viscosity: API RP 48 (unpublished)							
3-Methyl-1-butane-thiol	118.4	760	0.83620	20/4	1.44073	20/6678.1A	1/ -133.51	API RP 48 (unpublished)
			.83161	25/4	1.43812	25/6678.1A		
			.82703	30/4	1.43553	30/6678.1A		
					1.44113	20/6562.8A		
C-C(C)-C-C-SH					1.43853	25/6562.8A		
					1.43592	30/6562.8A		
					1.44375	20/5892.6A		
					1.44115	25/5892.6A		
					1.43855	30/5892.6A		
					1.44615	20/5460.7A		
					1.44355	25/5460.7A		
					1.44094	30/5460.7A		
					1.44903	20/5015.7A		
					1.44643	25/5015.7A		
					1.44382	30/5015.7A		
					1.45043	20/4861.3A		
					1.44782	25/4861.3A		
					1.44521	30/4861.3A		
					1.45576	20/4358.3A		
					1.45315	25/4358.3A		
					1.45053	30/4358.3A		
	120							Karchmer (1959)
	115-18	754	.8360	20/4	1.4428	20/D		Obolentsev et al. (1958) A
	115-18	754	.8360	20/4	1.4428	20/D		Obolentsev et al. (1957)
	115-18	754	.8360	20/4	1.4428	20/D		Obolentsev et al. (1956)
	120.1	760						Shostakovskii et al. (1955)
	Surface tension, viscosity: API RP 48 (unpublished) Retention volume: Karchmer (1959) Water solubility: Sakodynskii, Babkov (1959) Elution time: Amberg (1955)							
2-Methyl-2-butane-thiol	99							Karchmer (1959)
C-C-C(C)(SH)-C								
	Retention volume: Karchmer (1959)							
3-Methyl-2-butane-thiol	109.7	760	.84071	20/4	1.44140	20/6678.1A		API RP 48 (unpublished)
			.83606	25/4	1.43873	25/6678.1A		
			.83141	30/4	1.43606	30/6678.1A		
					1.44195	20/6562.8A		
C-C(C)-C-C					1.43930	25/6562.8A		
C SH					1.43662	30/6562.8A		
					1.44461	20/5892.6A		
					1.44194	25/5892.6A		
					1.43928	30/5892.6A		
					1.44663	20/5460.7A		
					1.44397	25/5460.7A		
					1.44131	30/5460.7A		
					1.45001	20/5015.7A		
					1.44735	25/5015.7A		
					1.44470	30/5015.7A		
					1.45102	20/4861.3A		
					1.44835	25/4861.3A		
					1.44567	30/4861.3A		
					1.45632	20/4358.3A		
					1.45364	25/4358.3A		
					1.45096	30/4358.3A		

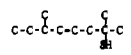
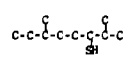
1/ Triple point.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-Methyl-2-butanethiol -- Continued	Surface tension, viscosity: API RP 48 (unpublished)							
Cyclopentanethiol 	41-42	16			1.4899	20/D		Hopkins, Ball (1957)
1-Hexanethiol C-C-C-C-C-C-SH	149.7	698.6			1.44403 1.44711 1.44716 1.45342 1.45500 1.45765	25/6678Å 25/5893Å 25/5876Å 25/5016Å 25/4713Å 25/4471Å		Mathias, Filho (1958)
	151-2							Fukui et al. (1957)
	155-60	760						Kulka (1956)
	70-2	60			1.4460	20/D		Leonard, Gelfand (1955)
	Water solubility: Sakodynskii, Babkov (1959) Elution time: Amberg (1958) Dipole moment: Mathias, Filho (1958)							
3-Hexanethiol C-C-C-C-C-C SH	68-70	65	0.9206	20/4	1.4496	20/D		Obolentsev et al. (1958) A
	68-70	65	.9206	20/4	1.4496	20/D		Obolentsev et al. (1956)
4-Methyl-2-pentanethiol C-C-C-C-C C SH	118-21	79	1.0010	20/4	1.4435	20/D		Obolentsev et al. (1958) A
	118-21	79	1.0010	20/4	1.4435	20/D		Obolentsev et al. (1956)
2-Methyl-3-pentanethiol C-C-C-C-C SH C	135				1.4467	20/D		Bordwell, Hewett (1957) B
Cyclohexanethiol 	151-2							Kametani et al. (1959)
	156-8				1.4940	20/D		Landa et al. (1959)
	159-60				1.4956	17/D		Chi, Youh-Fang; Chu, Ting-I (1957)
					1.4933	20/D		
	52-3	15			1.4932	20/D		Hopkins, Ball (1957)
2-Methylcyclopentanethiol  cis	145.2	590			1.4884	20/D		Bordwell, Hewett (1957) A
trans	135.8	590			1.4783	20/D		Bordwell, Hewett (1957) A
1,5-Hexadiene-3-thiol C=C-C-C-C=C SH	61.5-2.5	37			1.5029	20/D		Tarbell, Lovett (1956)
2-Cyclohexene-1-thiol 	48-50	10			1.5242	20/D		Bateman, et al. (1958) B
	44	11			1.5230	20/D		Saville (1958)
Benzenethiol 	80	28						Yonemoto (1959) A
	69	13			1.5899	20/D		Ford et al. (1958)
	70-2	16	1.0780	20/4	1.5860	20/D		Obolentsev et al (1958) A
	166.5-7.5				1.5905	20/D		Karaulova et al. (1957) B
	70-2	16	1.0780	20/4	1.5860	20/D	-20	Obolentsev et al. (1957)
	168.5-9.5							Wang, Cohen (1957)
	53-55	10						Goering et al. (1956)
	166-9							
	70-2	16	1.0780	20/4	1.5860	20/D		Obolentsev et al. (1956)

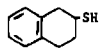
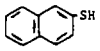
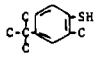
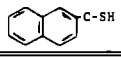
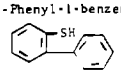
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Benzenethiol -- Continued	169.14	760					1/ -14.88	Scott et al. (1956)
	87	60			1.5840	20/D		Leonard, Gelfand (1955)
	166-9	760						Shostakovskii et al. (1955)
	167	760	1.0780	24/4				Terres et al. (1955)
	169		1.0734	20/4	1.5897	20/D		Lumbroso, Marschalk (1952)
	Dissociation constant: Danehy, Noel (1960); Scardiglia, Roberts (1958) Vapor pressure: Scott et al. (1956); Terres et al. (1955) Heats of fusion, vaporization, heat capacity: Scott et al. (1956)							
1-Heptanethiol	174.5	696.2			1.44649	25/6678Å		Mathias, Filho (1958)
					1.44953	25/5893Å		
					1.44959	25/5876Å		
C_7-SH					1.45478	25/5016Å		
					1.45734	25/4713Å		
					1.45988	25/4471Å		
	69-70	10	0.8435	20/4	1.4470	20/D		Obolentsev et al. (1957)
	Dipole moment: Mathias, Filho (1958)							
Cycloheptanethiol 	177-8	100						Fukui et al. (1957)
2-Methylcyclohexanethiol								
cis 	143.4	300			1.4937	20/D		Bordwell, Hewett (1957) A
trans	138.7	300			1.4851	20/D		Bordwell, Hewett (1957) A
4-Methylcyclohexanethiol 	74-5	17	1.0110	20/4	1.4838	20/D		Obolentsev et al. (1958) A
	74-5	17	1.0110	20/4	1.4838	20/D		Obolentsev et al. (1956)
Phenylmethanethiol 	93	23						Yonemoto (1959) A
	183-5							Nicolenko et al. (1958)
	64-6	4	1.0544	20/4	1.5757	20/D	2/ -29.2	Obolentsev et al. (1958) A
							2/ -30.0	Obolentsev et al. (1958) B
	87	0.5						Bullock et al. (1957)
	190	760						
	194-5							Wang, Cohen (1957)
	194				1.5715	25/D		Hoffman et al. (1956)
	77-9	12			1.5730	20/D		Kulka (1956)
	73	10						
	64-6	4	1.0544	20/4	1.5757	20/D	-30	Obolentsev et al. (1957)
	64-6	4	1.0544	20/4	1.5757	20/D		Obolentsev et al. (1956)
	194-5	760						Shostakovskii et al. (1955)
2-Methylbenzenethiol 	104	48						Campaigne, Osborn (1957)
	102.5-103	45.5	1.0512	20/4	1.5650	20/D		Karaulova et al. (1957) B
	194.0	758	1.1054	20/4	1.5742	20/D	+ 4.5	Obolentsev et al. (1957)
4-Methylbenzenethiol 	80-90	3					41-3	Wittenberg et al. (1958)
							41-2	Truce et al. (1956) A
							43	Lumbroso, Marschalk (1952)
1-Octanethiol	77-8	10			1.4542	20/D		Bateman et al. (1958)
	82-2.5	18	0.8440	20/4	1.4530	20/D		Obolentsev et al. (1957)
	95-8	33						Hopkins, Vogel (1956)
C_8-SH								

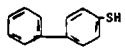
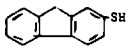
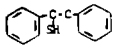
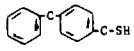
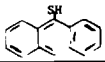
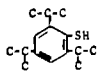
1/ Triple point.
2/ -29.2° for zero impurity.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Octanethiol	66-9	23						Moore, Porter (1958)
	83-5	27						Hopkins, Vogel (1956)
	64-5	10			1.4306	20/D		Bateman et al. (1958) B
(+)	83-4	26			1.4300	20/D		Arcus, Hallgarten (1956)
(-)	80-2	25			1.4320	20/D		Arcus, Hallgarten (1956)
C_6-C(SH)-C								
(-)	Optical rotation: Arcus, Hallgarten (1956)							
4-Octanethiol	85-5.5	19	0.8529	20/4	1.4485	20/D		Obolentsev et al. (1958) A
	85-5.5	19	.8529	20/4	1.4485	20/D		Obolentsev et al. (1957)
	85-5.5	19	.8529	20/4	1.4485	20/D		Obolentsev et al. (1956)
C_4-C(SH)-C_3								
2-Ethyl-1-hexanethiol	66-7	22						Fukui et al. (1957)
C_4-C(C_2)-C-SH								
1-(3-Cyclohexenyl)-1-ethanethiol	46-8	0.2	1.008	25/4	1.5081	20.5/D		Marvel, Olson (1957)
								
4-Ethenylcyclohexanethiol	98-101	35			1.5106	20/D		Smith, Pritchard (1958)
	84-7	15			1.5103	20/D		Marvel, Olson (1957)
								
1-Ethynylcyclohexanethiol	45	6.5	0.995	25/4				Lowes, Munroe (1957)
								
2-Phenyl-1-ethanethiol	106-8	22						Kametani et al. (1959)
	95-8	12						Kulka (1956)
								
2-Ethylbenzenethiol	203-5				1.5678	25/D		van Schooten et al. (1958)
	102	13	1.0248	21.5/4	1.5642	21/D		Hansch et al. (1956)
								Huckel, Nabih (1956)
								
4-Ethylbenzenethiol	102	23						Schaafsma et al. (1957)
	103-5	25						Overberger, Labovitz (1956)
C-C- 								
	Hydrogen abstraction constant: Schaafsma et al. (1957)							
2,3-Dimethyl-1-benzenethiol	132.2	50						Bartkus et al. (1957)
								
2,4-Dimethyl-1-benzenethiol	127.0	50						Bartkus et al. (1957)
								
2,5-Dimethyl-1-benzenethiol	126.3	50						Bartkus et al. (1957)
								

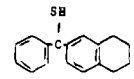
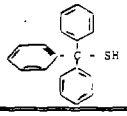
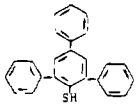
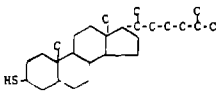
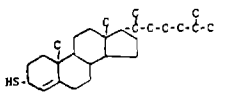
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,6-Dimethyl-1-benzenethiol 	122 111 91	50 25 50	1.038	25/4	1.5712 1.5712	25/D 20/D		Bartkus et al. (1957) Campaigne, Osborn (1957) Al-Kazimi et al. (1955)
3,4-Dimethyl-1-benzenethiol 	132.5	50						Bartkus et al. (1957)
3,5-Dimethyl-1-benzenthiol 	127.5	50						Bartkus et al. (1957)
1-Nonanethiol C_9-SH	102-5	10	0.8456	20/4	1.4535	20/D		Obolentsev et al. (1957)
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
1-Phenyl-2-propanethiol (±) 	106-8	18			1.5448	18/D		Arcus, Hallgarten (1956)
(+)	104	17			1.5430	20/D		Arcus, Hallgarten (1956)
(-)	111	23			1.5425	24/D		Arcus, Hallgarten (1956)
	Optical rotation: Arcus, Hallgarten (1956)							
2-Phenyl-2-propanethiol 	63-4	2.3			1.5500	20/D		Fields (1955)
2-Isopropyl-1-benzenethiol 	100	20						Bartkus et al. (1960)
2,4-Dimethylphenyl-methanethiol 	100-2	10			1.5610	20/D		Kulka (1956)
2,4,6-Trimethyl-1-benzenethiol 	227-9							Wang, Cohen (1957)
2,6-Dimethyl-2-octanethiol 	84-5	10			1.4543	20/D		Bateman et al (1958) B
2,6-Dimethyl-3-octanethiol 	88-9	10			1.4584	20/D		Bateman et al. (1958) B

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3,7-Dimethyl-3-octanethiol 	89	10			1.4760	20/D		Bateman, et al. (1957)
2,2-Dimethyl-3-norbornanemethanethiol 	116	20						Bordwell, Hewett (1957) A
6,6-Dimethyl-2-bicycloheptylmethanethiol 	124-5	25			1.5090	25/D		Bordwell, Hewett (1957) A
2,6,6-Trimethyl-2-bicyclo-3.1.1 heptanethiol 	84	7						Bordwell, Hewett (1957) A
4-t-Butyl-1-benzenethiol 	120 112-14.5	20						Bartkus et al. (1960) Schaafsma et al. (1957)
	Hydrogen abstraction constant: Schaafsma et al. (1957)							
2-Methyl-5-isopropyl-1-benzenethiol 	235-7	760						Profft, Buchmann (1955)
4-Methyl-2-isopropyl-1-benzenethiol 	115	20						Bartkus et al. (1960)
2,4,6-Trimethyl-1-phenylmethanethiol 	120	5					46-7	Hach et al. (1957)
2,3,5,6-Tetramethyl-1-benzenethiol 							63.5-65	Illuminati (1958)
1-Tetralinthiol 	99.6 105-5.5 124.0-4.5	22 1 5	1.0854 1.0990	20/4 20/4	1.5848 1.6020	20/D 20/D		Danilova, Tits-Skvortsova (1957) Tits-Skvortsova, Danilova (1956)

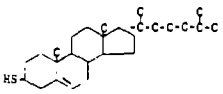
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Tetralinthiol 	101.5-2.5	2	1.0837	20/4	1.5800	20/D		Danilova, Tits-Skvortsova (1958)
6-Tetralinthiol 	161-2	35						Davies, Porter (1956)
1-Naphthalenethiol 	131 105-7 145.5	4.5 0.5 12						Weinstein, Pierson (1958) Schaafsma et al. (1957) Wilputte, Martin (1956)
	Hydrogen abstraction constant: Schaafsma et al. (1957)							
2-Naphthalenethiol 	152	12					77-9 81-82.4 80.5-1.5 79 78-9.5	Hardy et al (1959) Weinstein, Pierson (1958) Schaafsma et al. (1957) Wilputte, Martin (1956) Jaques (1955)
	Hydrogen abstraction constant: Schaafsma et al. (1957)							
2-Methyl-4-t-butyl-1-benzenethiol 	117	10						Barthus et al. (1960)
1-Naphthylmethanethiol 	142-3	0.5			1.6628	20/D		Weinstein, Pierson (1958)
2-Naphthylmethanethiol 							47.2-7.7	Weinstein, Pierson (1958)
1-Dodecanethiol C_{12}-SH	151-2 134-5 102-5	20 10 2-3			1.4575	20/D	-4 to -5	Fukui et al. (1957) Kulka (1956) Yeong-Ming et al. (1956)
2,6-Dimethyl-4-t-butyl-1-benzenethiol 	126	10					44-6	Barthus et al. (1960)
2-(1-Naphthyl)ethanethiol 	165	8					84.6-6.5	Yeong-Ming et al. (1956)
2-Phenyl-1-benzenethiol 	105 155-66	0.5 20	1.076	25/4	1.6403	25/D	35-6	Campaigne, Osborn (1957) Cerniani, Passerini (1956)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Phenyl-1-benzenethiol 							108-10	Niwa (1937)
2-Fluorenethiol 							127	Dutta, Mandal (1956)
1-Tetradecanethiol C_{14}-SH	310	760	0.8461 .8425	20/4 25/4	1.4617 1.4595	20/D 25/D	6	API RP 44
	Dielectric constant: Di Giacomo, Smyth (1956)							
2-Methyl-1-(1-naphthyl)-2-propanethiol 	155.7-60.0	5			1.6162	20/D		Weinstein, Pierson (1958)
1,2-Diphenylethanethiol 							41	Bellido (1958)
4-Benzyl-1-phenylmethanethiol 							85	Bellido (1958)
9-Anthracenethiol 							87-91	Conway, Tarbell (1956)
9-Phenanthrenethiol 	207	4					75	Wilputte, Martin (1956)
1-Pentadecanethiol C_{15}-SH	325	760	.8465 .8429	20/4 25/4	1.4624 1.4603	20/D 25/D	18	API RP 44
2,4,6-Triisopropyl-1-benzenethiol 	81	0.2			1.5335	20/D		Costanza et al. (1955)
1-Hexadecanethiol C_{16}-SH	339 182-8	760 10	.8468 .8433	20/4 25/4	1.4632 1.4611	20/D 25/D	18	API RP 44 Kulka (1956)
1-Heptadecanethiol C_{17}-SH	353	760	1/ .8471 1/ .8436	20/4 25/4	1/1.4639 1/1.4618	20/D 25/D	27	API RP 44

1/ Supercooled liquid.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Phenyl-6-tetralyl-methanethiol 	167-70	5						Fujimura et al. (1956)
1-Octadecanethiol C_{18}-SH	366	760	1/ 0.8475 1/ .8440	20/4 25/4	1/ 1.4643 1/ 1.4624	20/D 25/D	28	API RP 44
	Dielectric constant: Di Giacomo, Smyth (1956)							
1-Nonadecanethiol C_{19}-SH	378	760	1/ .8477 1/ .8442	20/4 25/4	1/ 1.4650 1/ 1.4629	20/D 25/D	34	API RP 44
Triphenylmethane-thiol 							106	Kresze, Uhlich (1959)
1-Eicosanethiol C_{20}-SH	389	760	1/ .8480 1/ .8445	20/4 25/4	1/ 1.4655 1/ 1.4634	20/D 25/D	37	API RP 44
2,4,6-Triphenyl-1-benzenthiol 							145.5-6.5	Dimroth, Oosterloo (1958)
10,13-Dimethyl-17-(6-methyl-2-heptyl)-3-gonanethiol 							94	Bourdon (1958) B
	Optical rotation: Bourdon (1958) B							
10,13-Dimethyl-17-(6-methyl-2-heptyl)-4-gonene-3-thiol 							116.5	Bourdon (1958) B
	Optical rotation: Bourdon (1958) B							

1/ Supercooled liquid

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
10,13-Dimethyl-17-(6-methyl-2-heptyl)-5-gonene-3-thiol 							103	Bourdon (1958) A
	Optical rotation: Bourdon (1958) (A)							

Name and empirical formula	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
$C_{10}H_{22}S$ "Dimethyloctanethiols"	92-4	10			1.4800	20/D		Bateman et al. (1958) A
$C_{10}H_{20}S$ "Dimethyloctenethiols"	92-4	10			1.4800	20/D		Bateman et al. (1958) B
$C_{11}H_{14}S$ "Pentenylthiophenol"	122-9	14			1.5636-70	20/D		Bloch (1960)
$C_{16}H_{22}S$ "Dipentenylthiophenol"	160-70	0.5			1.6119-72	20/D		Bloch (1960)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Thiapropane C-S-C	37-37.5 37.5 37.28 35	760 760	0.864 .848	20/4 20/4	1.4349	20/D		Davis, Sorensen (1959) Feher, Vogelbruch (1958) Desty, Whyman (1957) Nakada (1957)
	Elution time: Amberg (1958) Viscosity: Feher, Vogelbruch (1958) Retention volume: Spencer et al. (1958); Desty, Whyman (1957) Heats of vaporization, combustion, vapor heat capacity: McCullough et al. (1957)							
Thiacyclopropane 	54-4.5				1.4898 1.4875 1.4950 1.4898	25/D 27/D 20/D 25/D		Reynolds (1958) Searles, Lutz (1958) Reynolds (1957)
2-Thiabutane C-S-C-C	66.5 66-68 65-8	760			1.4407 1.4360	20/D 25/D		Hayashi et al. (1957) Foster et al. (1956) Pochinok, Limarenko (1955)
	Heat of vaporization: Mackle et al. (1960) Elution time: Amberg (1958) Retention volume: Spencer et al. (1958)							
2-Thia-3-butene C-S-C=C	67-67.5 28 68 69-70 69-71 69	155 760 760	.9002	25/25	1.4826 1.4826 1.4837-45	25/D 25/D 20/D		Nedwick, Snyder (1960) Georgieff, Dupre (1959) Schneider (1959) A Arens et al. (1956) Bohme, Bentler (1956) Doering, Schreiber (1955)
Thiacyclobutane 	70-93 94-4.5 92-4				1.4932 1.5027	20/D 25/D		Searles, Lutz (1958) Dittmer et al. (1957) Bordwell, Pitt (1955)
	Dipole moment: Cumper, Vogel (1959)							
Methylthiacyclo- 	72-5 74.5-4.6 77-9		.9588	20/4	1.4685	20/D		Bordwell, Hewett (1958) Davis (1958) Petrov, Sokolsky (1957)
2-Thia-3-butyne C-S-C≡C	70 70.5-71				1.4855	20/D		Organon (1958) Arens et al. (1956)
2-Thiapentane C-S-C-C-C							1/ -112.98	Scott et al. (1957)
	Heat of combustion: Hubbard et al. (1958) B Heats of fusion, vaporization, heat capacity: Scott et al. (1957)							
3-Thiapentane C-C-S-C-C	92 90-2 91.2 93.7 92 92.06 92 91-2 91-3 90	760 760 760	.8369	20/4	1.4436 1.4427 1.4389 1.4401	20/D 20/D 25/D 25/D		Karchmer (1959) Lands et al. (1959) Walling, Rabinowitz (1959) A Feher, Vogelbruch (1958) Ping-Fang, Wan-Yi (1958) Desty, Whyman (1957) Schmeisser (1957) Foster et al. (1956) Wagner et al. (1956) Jacobson et al. (1955)
	Heat of vaporization: Mackle et al. (1960) Retention volume: Karchmer (1959); Spencer et al. (1958); Desty, Whyman (1957) Retention time: Amberg (1958) Heat of combustion: Hubbard et al. (1958) B Viscosity: Feher, Vogelbruch (1958) Heat of absorption: Maxted, Josephs (1956)							

1/ Triple point.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-Methyl-2-thiabutane	83.5						1/ -101.50	Vecera et al. (1956) McCullough et al. (1955)
C-S-C(C)-C	Heat of combustion: Hubbard et al. (1958) B Heats of fusion, vaporization, heat capacity: McCullough et al. (1955)							
2-Thia-3-pentene	102				1.4903	20/D		Boonstra (1959)
C-S-C=C-C								
3-Thia-1-pentene	92-2.5		0.8723	25/4	1.4735	25/D		Nedwick, Snyder (1960)
	92	760	.8749	25/25	1.4735	25/D		Schneider (1959) A
	90.2-91		.876	20.5/4	1.4763	20/D		Organon (1958)
C=C-S-C-C	90.2-91		.876	20.5/4	1.4763	20/D		Arens et al. (1956)
	91-2	760						Bohme, Bentler (1956)
	90-1	750						
	91.9-2.2	760	.8767	20/4	1.4756	20/D		Shostakovskii et al. (1955)
Thiacyclopentane	120.4±0.05				1.50438±.00005	20/D		Milazzo (1959)
	120	759	.9960	20/4	1.5046	20/D		Yur'ev, Makarov (1959)
	120-1				1.5043	20/D		Sumrell, Hornbaker (1958)
	121.45	760						Desty, Whyman (1957)
	118	atm.						Hopkins, Ball (1957)
	119-21				1.5000-14	25/D		Lawson et al. (1956)
	119-20				1.5037	20/D		Marvel, Ryder (1955)
	119-22							Reppe et al. (1955)
	Dipole moment: Cumper, Vogel (1959) Elution time: Amberg (1958) Retention volume: Spencer et al. (1958); Desty, Whyman (1957) Oxidation potential: Luk'yanitsa, Gal'pern (1956) Vapor pressure: Milazzo (1956) A ; Milazzo (1956) B Heat of vaporization: Milazzo (1956)							
3-Methylthiacyclobutane	108-9				1.4840	25/D		Bordwell, Hewett (1958)
	101-2				1.4852	20/D		Searles, Lutz (1958)
S-C(C)-C-C								
2-Thia-3-pentyne	114-16				1.5030	20/D		Boonstra et al. (1959)
C-S-C≡C-C								
3-Thia-1-pentyne	2/ 61							Adams, Ferretti (1959) B
	91.5-2							Organon (1958)
	91.5-2				1.4790	20/D		Arens et al. (1956)
C≡C-S-C-C								
3-Thia-1,4-pentadiene	42.5	150			1.5076	20/D		Georgieff, Dupre (1959)
	84.5-5.5				1.5040	25/D		Scott, Price (1959)
C=C-S-C=C								
3-Thiahexane	118							Bahr, Thiele (1957)
	118.50	760						Desty, Whyman (1957)
	112-15	760			1.441	25/D		Foster et al. (1956)
C-C-S-C-C-C								
	Retention volume: Spencer et al. (1958); Desty, Whyman (1957)							

1/ Triple point
2/ "Impure"

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-Methyl-2-thia-pentane C-S-C(C)-C-C	112-12.5 112-13 113	760			1.4485	20/D		Asinger et al. (1959) Leaver, Challenger (1957) Vecera et al. (1956)
2-Methyl-3-thia-pentane C-C(C)-S-C-C	104-6							Vecera et al. (1956)
	Retention volume: Spencer et al. (1958)							
3,3-Dimethyl-2-thia-butane C-S-C(C)(C)-C	98.8	760	0.82537 .82053 .81570	20/4 25/4 30/4	1.43704 1.43430 1.43155 1.43749 1.43475 1.43200 1.44031 1.43757 1.43482 1.44265 1.43990 1.43715 1.44560 1.44286 1.44013 1.44708 1.44433 1.44160 1.45258 1.44984 1.44709	20/6678.1Å 25/6678.1Å 30/6678.1Å 20/6562.8Å 25/6562.8Å 30/6562.8Å 20/5892.6Å 25/5892.6Å 30/5892.6Å 20/5460.7Å 25/5460.7Å 30/5460.7Å 20/5015.7Å 25/5015.7Å 30/5015.7Å 20/4861.3Å 25/4861.3Å 30/4861.3Å 20/4358.3Å 25/4358.3Å 30/4358.3Å	- 82.31	API RP 48 (unpublished)
	Surface, tension, viscosity: API RP 48 (unpublished)							
3-Thia-1-hexene C=C-S-C-C-C	43.5	50	.8723	20/4	1.4734	20/D		Shostakovskii et al. (1955)
3-Thia-4-hexene C-C-S-C=C-C	120-2 120-2		.88	20/20	1.4782	20/D		Boonstra et al. (1959) Bohme, Bentler (1956)
2-Methyl-3-thia-1-pentene C=C(C)-S-C-C	112-14 114-15	750	.8728 .8720	20/4 20/4	1.4735 1.4730	20/D 20/D		Kul'bovskaya et al. (1960) Shostakovskii et al. (1960)
2-Methyl-3-thia-4-pentene C-C(C)-S-C=C-C	104.5-5 104.5-5.5	745	.8505	25/4	1.4645 1.4632	25/D 25/D		Nadwick, Snyder (1960) Scott, Price (1959)
Thiacyclohexane 	140 138-9 140-1 139-40 140-1 139-40	735 760	.9774 .9836 .9836	20/4 20/4 20/4	1.5060 1.5032 1.5068 1.5062 1.5059 1.5068	20/D 20/D 20/D 20/D 25/D 20/D		Kulka (1959) Yur'ev, Makarov (1959) Bordwell, Hewett (1958) Obolentsev et al. (1958) ▲ Bateman et al. (1957) Hopkins, Rall (1957) Obolentsev et al. (1956)
	Dielectric constant: Reinisch (1959); Reinisch (1956) Dipole moment: Cumper, Vogel (1959) Solid phase transition: Reinisch (1959)							

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Methylthiacyclopentane 	132.3	760	0.95516	20/4	1.48734	20/6678.1Å	-100.8	API RP 48 (unpublished)
			.95046	25/4	1.48477	25/6678.1Å		
			.94576	30/4	1.48222	30/6678.1Å		
					1.48786	20/6562.8Å		
					1.48529	25/6562.8Å		
					1.48274	30/6562.8Å		
					1.49095	20/5892.6Å		
					1.48839	25/5892.6Å		
					1.4858	30/5892.6Å		
					1.49359	20/5460.7Å		
					1.49104	25/5460.7Å		
					1.48848	30/5460.7Å		
					1.49719	20/5015.7Å		
					1.49463	25/5015.7Å		
					1.49208	30/5015.7Å		
					1.49871	20/4861.3Å		
					1.49614	25/4861.3Å		
					1.49358	30/4861.3Å		
					1.50485	20/4358.3Å		
					1.50230	25/4358.3Å		
					1.49975	30/4358.3Å		
					1.4880	25/D		Greenfield et al. (1958)
	131-2	750	.9577	20/4	1.4982	20/D		Yur'ev, Makarov (1958)
	133.23	760						Desty, Whyman (1957)
					1.4913	20/D		Hopkins, Ball (1957)
	Surface tension, viscosity: API RP 48 (unpublished) Retention volume: Desty, Whyman (1957)							
3,3-Dimethylthiacyclobutane 	115-16				1.4738	20/D		Searles, Lutz (1958)
3-Thia-4-hexyne C-C-S-C≡C-C	136		.924	20/20	1.4950	20/D		Boonstra (1959)
Thia-3-cyclohexene 	71-2	60			1.5346	20/D		Bateman et al. (1957)
2-Methyl-1-thia-2-cyclopentene 	129-30	745	.9902	20/4	1.5073	20/D		Yur'ev, Makarov (1958)
6-Thiabicyclo[3.1.0]-hexane 	68	65			1.5240	20/D		Goodman, Baker (1959)
	67-8	62			1.5246	20/D		
	69-70	65			1.5218	25/D		Goodman et al. (1958)
2-Thia-3-buten-5-yne C-S-C=C-C≡C	54	15	.9763	20/4	1.5578	20/D		Gusseinov et al. (1959)
3-Thiaheptane C-C-S-C-C-C-C	143-5				1.6527	20/D		Runge et al. (1955)
	Retention volume: Spencer et al. (1958) Oxidation potential: Luk'yanitsa, Gel'pern (1956)							

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Thiaheptane C-C-C-S-C-C-C					1.4473	20/D		Tarbell, Lovatt (1956)
	Heat of vaporization: Mackle (1960) Elution time: Amberg (1958)							
3-Methyl-2-thia-hexane C-S-C(C)-C-C-C	63-4	60			1.4468	20/D		Brown, Wheeler (1956)
2-Methyl-3-thia-hexane C-C(C)-S-C-C-C	130-2							Vecera et al. (1956)
	Retention volume: Spencer et al. (1958)							
4-Methyl-3-thia-hexane C-C-S-C(C)-C-C	133-4 130-1							Vecera et al. (1956) Bordwell, Pitt (1955)
5-Methyl-3-thia-hexane C-C-S-C-C(C)-C	130-2							Vecera et al. (1956)
3-Ethyl-2-thia-pentane C-S-C(C)-C-C C	136.5-7.0	760			1.4538	20/D		Aainger et al. (1959)
2,2-Dimethyl-3-thia-pentane C-C(C)-S-C-C C	119.0-19.5							Eaton, Hinds (1959)
2,4-Dimethyl-3-thia-pentane C-C(C)-S-C(C)-C	120.0	760	0.81489 .81031 .80574	20/4 25/4 30/4	1.43573 1.43309 1.43045 1.43620 1.43357 1.43093 1.43886 1.43623 1.43359 1.44122 1.43860 1.43597 1.44413 1.44150 1.43888 1.44549 1.44285 1.44023 1.45098 1.44833 1.44571	20/6678.1Å 25/6678.1Å 30/6678.1Å 20/6562.8Å 25/6562.8Å 30/6562.8Å 20/5892.6Å 25/5892.6Å 30/5892.6Å 20/5460.7Å 25/5460.7Å 30/5460.7Å 20/5015.7Å 25/5015.7Å 30/5015.7Å 20/4861.3Å 25/4861.3Å 30/4861.3Å 20/4358.3Å 25/4358.3Å 30/4358.3Å	1/ - 78.09	API RP 48 (unpublished)
	117-20							Vecera et al. (1956)
	Surface tension, viscosity: API RP 48 (unpublished)							

1/ Triple point.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-Thia-1-heptene C=C-S-C-C-C-C	72-3 70 69-70 55 141 1/ 144.0 47.5-8.5	54 60 60 31 760 21	0.8728 .8698	25/25 20/4	1.4738 1.4723 1.4722	25/D 25/D 20/D		Hedwick, Snyder (1960) Schneider (1959) A Schneider (1959) B Kappe et al. (1956) Shostakovskii et al. (1955)
3-Thia-6-heptene C-C-S-C-C-C=C	132-4				1.4752	20/D		Kunge et al. (1955)
2-Methyl-3-thia-1-hexene C=C-S-C-C-C C	47-8	25	.8688	20/4	1.4740	20/D		Shostakovskii (1960)
4-Methyl-3-thia-1-hexene C=C-S-C-C-C C	73-4 74 73-5	115 115 115	.8556 .8581	25/4 25/25	1.4683 1.4687 1.4687	25/D 25/D 25/D		Hedwick, Snyder (1960) Schneider (1959) A Schneider (1959) B
5-Methyl-3-thia-1-hexene C=C-S-C-C-C C	74.5-5.5	115	.8539	25/4	1.4460	25/D		Hedwick, Snyder (1960)
5-Methyl-3-thia-4-hexene C-C-S-C=C-C C	36-8 141-2	13 760						Bohme, Bentler (1956)
4,4-Dimethyl-3-thia-1-pentene C C-C-S-C=C C	34-60 112 117-18 117-18	120 744	.8397	20/4	1.4622 1.4622	20/D 20/D		Hedwick, Snyder (1960) Shostakovskii et al. (1959) C Organon (1958) Arens et al. (1955)
Thiacycloheptane 	171-2 171-2	747 747	.9876 .9876	20/4 20/4	1.5138 1.5138	20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1956)
2-Methyl-1-thiacyclohexane 					1.4897	20/D		Hopkins, Rall (1957)
4-Methyl-1-thiacyclohexane 					1.4927	20/D		Hopkins, Rall (1957)
2-Ethyl-1-thiacyclopentane 	156 154-8	736	.9405	20/4	1.4870	25/D		Greenfield et al. (1958)

1/ Decomposition.

Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
2,5-Dimethylthia-cyclopentane 	142	atm.			1.4803	20/D		Hopkins, Hall (1957)
3,4-Dimethylthia-cyclopentane 	67-8 155.4-56	4.8 756	0.9446	20/4	1.5188 1.4908	21.5/D 20/D		Marvel, Ryder (1955) Yur'ev, Kondrat'eva (1954)
3-Thia-1-heptyne 	83	93			1.4690	25/D		Parham et al. (1959) B
4-Thia-1,5-heptadiene 					1.5010	20/D		Tarbell, Lovett (1956)
4-Thia-1,6-heptadiene 					1.4896	20/D		Tarbell, Lovett (1956)
4-Thia-2,5-heptadiene 	62.9-3.2	38	.9012	20/4	1.5108	20/D		Tarbell, Lovett (1956)
2-Methyl-3-thia-5-hexyne 	78-80	100	.9251	20/4	1.4795	20/D		Conklin, Morris (1955)
4,4-Dimethyl-3-thia-1-pentyne 	61 51.5-2.5 51.5-2.5	109 72 72			1.4631 1.4667	26.9/D 20/D	 -24 to -21.5	Parham et al. (1959) B Organon (1958) Arens et al. (1956)
2-Methyl-1-thia-2-cyclohexene 	50	10			1.5262	20/D		Bateman, Glazebrook (1958)
6-Thiabicyclo[3.1.1] heptane 	175	775			1.519	20/D	93.5-5.5	Birch et al. (1958) B
7-Thianorbornane 	164	765			1.517	20/D	127.5-8.5	Birch et al. (1958) B
7-Thiabicyclo[4.1.0] heptane 	73-4.5	22						Davis (1958)
3-Thia-4-hepten-6-yne 	63-4 65-5.5 65-5.5	14 12 17	.9581 .9316 .9516	20/4 20/4 20/4	1.5449 1.5408 1.5488	20/D 20/D 20/D		Guscinov (1959) Shostakovskii et al. (1959) A Bogdanova et al. (1958)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Thia-1,6-hepta-diyne C≡C-C-S-C-C≡C	36.2-6.8 67-8	3-4 24						Conklin, Morris (1955) Sato (1955)
2-Methyl-3-thiaheptane C-C(C)-S-C_4	154-6							Vecera et al. (1956)
2-Methyl-4-thiaheptane C-C(C)-C-S-C-C-C	153-6							Vecera et al. (1956)
3-Methyl-4-thiaheptane C-C-C(C)-S-C-C-C	153-5							Vecera et al. (1956)
2,2-Dimethyl-3-thia-hexane C-C(C)(C)-S-C-C-C	138-8.1		0.8268	20/4	1.4452 1.4473 1.4458	20/D 20/D 20/D		Tarbell, Lovett (1956)
2,4-Dimethyl-3-thia-hexane C-C-S-C(C)-C-C	144.6 141.5-3.5	760	.8253	20/4	1.4453 1.4472	20/D 20/g		API RP 48 (unpublished) Vecera et al. (1956)
2,5-Dimethyl-3-thia-hexane C-C(C)-S-C-C(C)-C	144-6 5							Vecera et al. (1956)
4,4-Dimethyl-3-thia-hexane C-C-S-C(C)(C)-C-C	146-8		1/ .840					Eaton, Hinds (1959)
2,2,4-Trimethyl-3-thiapentane C-C(C)(C)-S-C(C)-C	132		1/ .835					Eaton, Hinds (1959)
2-Methyl-3-thia-1-heptene C=C(C)-S-C_4	66-7	25	.8456	20/4	1.4730	20/D		Shostakovskii et al. (1960)
6-Methyl-3-thia-1-heptene C=C-S-C-C-C(C)-C	53.5-4.5	17	.8415	20/4	1.4700	20/D		Shostakovskii et al. (1955)

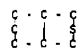
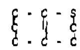
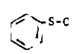
1/ Specific gravity

Name and skeleton	Boiling point °C	Boiling point mm. Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,2-Dimethyl-3-thia-4-hexene	139.1-40.8		0.8322	20/4	1.4700	20/D		Tarbell, Lovett (1956)
2,2-Dimethyl-3-thia-5-hexene	139-41.5		.8479	20/4	1.4638	20/D		Tarbell, Lovett (1956)
(1-Thiaethyl)cyclo-hexane								
	Dipole moment: Cumper, Walker (1956); Cumper et al. (1955)							
(1-Thiapropyl)cyclo-pentane	60	15			1.4852	20/D		Hopkins, Rall (1957)
2-Ethyl-1-thiacyclo-hexane	73 73	24 24			1.4869 1.4823 1.4886	20/D 20/D 20/D		Hopkins, Rall (1957)
4-Ethyl-1-thiacyclo-hexane	1/ 66-7 190.5	16 756	.9428	20/4	1.4926	20/D		Onesta, Castelfranchi (1959)
2-Propyl-1-thiacyclo-pentane	86-6.5 180.4	33-5 766	.9259	20/4	1.4859	20/D		Onesta, Ferretti (1955)
2,3,5-Trimethyl-1-thiacyclopentane	60-61 162-3	40 751	.9104	20/4	1.4786	20/D		Yur'ev et al. (1958) B
3,3-Diethylthiacyclo-butane	170.5-73				1.4833	20/D		Searles, Lutz, (1958)
3-Ethenyl-2-thia-5-hexene	78.2-8.8	38			1.5017	20/D		Tarbell, Lovett (1956)

1/ Decomposition.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1-(1-Thiaethyl)-2-cyclohexene 	64.5	14			1.5210	20/D		Bateman, Shipley (1955)
4-Ethyl-1-thia-3-cyclohexene 	92	32			1.5222	20/D		Onesta, Castelfranchi (1959)
2,3-Dimethyl-1-thia-2-cyclohexene 	65-6	10			1.5280	20/D		Bateman, Glazebrook (1958)
2-Thiabicyclo[2.2.2]-octane 							209-210 210-212	Birch et al. (1958) A Birch et al. (1957)
2-Thiabicyclo[3.2.1]-octane 	197 197	atm. 744					166-7 165-6	Birch et al. (1958) A Birch et al. (1957)
3-Thiabicyclo[3.2.1]-octane 	196±2	atm.					174-5	Birch et al. (1958) A
6-Thiabicyclo[3.2.1]-octane 	197 197	atm. 769					173-4.5 172.5-4.0	Birch et al. (1958) A Birch et al. (1957)
8-Thiabicyclo[3.2.1]-octane 	195 1/ 176.5-8.5 194.5	atm. 0.4 769					172-3	Birch et al. (1958) A Birch et al. (1957)
1-Thiaoctahydro-pentalene 								
cis	198	atm.					-17	Birch et al. (1958) A
trans	86.5	20			1.52475	20/6678Å	-8	Birch et al. (1958) C
					1.52249	25/6678Å		
					1.52018	30/6678Å		
					1.52521	20/6563Å		
					1.52295	25/6563Å		
					1.52065	30/6563Å		
					1.52845	20/5893Å		
					1.52619	25/5893Å		
					1.52388	30/5893Å		
					1.53124	20/5461Å		
					1.52898	25/5461Å		
					1.52666	30/5461Å		
					1.53497	20/5016Å		
					1.53272	25/5016Å		
					1.53039	30/5016Å		
					1.53854	20/4861Å		
					1.53629	25/4861Å		
					1.53196	30/4861Å		
					1.54302	20/4358Å		
					1.54077	25/4358Å		
					1.53843	30/4358Å		
	87	20			1.5288	20/D		Birch et al. (1956) A

1/ Sublimes.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Thiaoctahydro-pentalene								
 cis	180-4				1.5218	31/D		Owen, Peto (1955)
trans	190-5				1.5233	31/D	29	Owen, Peto (1955)
4-Thia-5-octen-7-yne C-C-C-S-C=C-C≡C	66-8	6	0.9383	20/4	1.5340	20/D		Guseinov et al. (1959)
1-Thia-1,2,3,4,5,6-hexa-hydropentalene 	63-4	4	1.0771	20/20	1.5557	20/D		Mayer, Liebster (1958)
(1-Thiaethyl) benzene 	86	23						Yonemoto (1959) A
	53.5	1.5						Gasparic et al. (1958)
	69-71	11						Grillot, Thompson (1957)
	82-4	16						Bordwell, Pitt (1955)
	185-7							Pochinok, Limarenko (1955)
	187-8		1.0506	20/4	1.5868	20/D		Lumbroso, Marschalk (1952)
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
5-Thianonane C_4-S-C_4	176-88				1.4533-57	20/D		Rinzema et al. (1959)
	100	30						Walling, Rabinowitz (1959) A
	95	25					1/ -76.0	Obolentsev et al. (1958) B
	180-3	740			1.4493	25/D		Decker, Post (1957)
	121-4	26						
	91-1.5	10	.8440	20/4	1.4532	20/D		Obolentsev et al. (1957)
	54	4			1.4548	20/D		Shostakovskii et al. (1955)
	95.10±0.05	35			1.4752	/D		Sunner (1955)
	112.20±0.05	71						
	Dipole moment: Boud, Smith (1956) Oxidation potential: Luk'yanitsa, Gal'pern (1956) Heat of combustion: Sunner (1955) B							
2-Methyl-4-thiaoctane C-C(C)-C-S-C_4	79-80	10	.8353	20/4	1.4522	20/D	-103.6	Obolentsev et al. (1958) B
	176.5-8							Obolentsev et al. (1957)
								Vecera (1956)
3-Methyl-4-thiaoctane C-C-C(C)-S-C_4	175.5-7.5							Vecera (1956)
4-Ethyl-3-thiaheptane C_2-S-C(C_2)-C_3	74-5	20	.8493	20/4	1.4550	20/D		Obolentsev et al. (1958) A
	74-5	20	.8493	20/4	1.4550	20/D		Obolentsev et al. (1957)
	74-5	20	.8493	20/4	1.4550	20/D		Obolentsev et al. (1956)
4,6-Dimethyl-3-thiaheptane C_2-S-C(C)-C-C(C)-C	58-60	5	.9558	20/4	1.4520	20/D		Obolentsev et al (1958) A
	58-60	5	.9558	20/4	1.4520	20/D		Obolentsev et al. (1956)
2,5-Dimethyl-4-thiaheptane C-C(C)-C-S-C(C)-C-C	165.5-7.5							Vecera (1956)

1/ -75.9° for zero impurity.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,6-Dimethyl-4-thiaheptane C-C-C-C-S-C-C-C C C	83-5	30	0.8283	20/4	1.4437 1.4470	25/D 20/D	-81 1/ -81.0	Walling, Rabinowitz (1959) A Obolentsev et al. (1958) A Obolentsev et al. (1958) B
	83-5 83-5 162-6	30 30	.8263 .8283	20/4 20/4	1.4470 1.4470	20/D 20/D	-81	Obolentsev et al. (1957) Obolentsev et al. (1956) Vecera et al. (1956)
	Oxidation potential: Luk'yanitsa, Gel'pern (1956)							
3,5-Dimethyl-4-thiaheptane C-C-C-S-C-C-C C C	161-8							Vecera (1956)
2-Methyl-4-thia-1-octene C=C-C-S-C_4 C	65.8-6.2	14						Bernard (1956)
2-Methyl-4-thia-2-octene C-C=C-S-C_4 C	88-9	26			1.4782	25/D		Adams, Ferretti (1959) B
(1-Thiabutyl)cyclopentane 	75	15			1.4831	20/D		Hopkins, Hall (1957)
(2-Methyl-1-thiapropyl)-cyclopentane 	69	15			1.4794	20/D		Hopkins, Hall (1957)
2-Propyl-1-thiacyclohexane 	53	1.2			1.4878 1.4865 1.4887	20/D 20/D 20/D		Hopkins, Hall (1957)
4-Propyl-1-thiacyclohexane 	92 2/ 209.5	23 756	.9353	20/4	1.4896	20/D		Onesta, Castelfranchi (1959)
2-Isopropyl-1-thiacyclohexane 	45 76-7	1.3 13			1.4890 1.4852	20/D 20/D		Hopkins, Hall (1957)
2-Butyl-1-thiacyclopentane 2-butylthiaphane 	92-3	33	.9106	20/4	1.4814	20/D		Onesta, Ferretti (1955)
2-Isobutyl-1-thiacyclopentane 	192.5	766	.9114	20/4	1.4800	20/D		Onesta, Ferretti (1955)

1/ -80.7 for zero impurity.
2/ Decomposes.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,5-Dimethyl-3-ethyl-1-thiacyclopentane	172-3 73-4	744 25	0.9094	20/4	1.4782	20/D		Yur'ev et al. (1958) B
2,2,5,5-Tetramethyl-1-thiacyclopentane	60	33			1.4697	20/D		Hopkins, Ball (1957)
Hexylthiacyclopropane	83	5			1.4702	20/D		Moore, Porter (1958)
5-Thia-1,8-nonadiene	78-80	17			1.4825	25/D		Butler, Price (1959)
5-Thia-2,7-nonadiene	114-14.2	68						Patranek, Vecera (1959)
2,4,4-Trimethyl-3-thia-5-hexyne 	45-65	95-20						Conklin, Morris (1955)
(1-Thia-2-propenyl)-cyclohexane	71 71 69-71	9 9 9	.9492 .9492 .9464	25/25 25/25 25/25	1.5097 1.5097 1.5094	25/D 25/D 25/D		Nedwick, Snyder (1960) Schneider (1959) A Schneider (1959) B
(1-Thiapropyl)-2-cyclohexene	76	14			1.5140	20/D		Bateman, Shipley (1955)
4-Propyl-1-thia-3-cyclohexene	105	3			1.5108	20/D		Onesta, Castelfranchi (1959)
2-Methyl-5-isopropyl-1-thia-2-cyclopentene	63-64	10			1.4932	20/D		Bateman, Glazebrook (1958)
9-Thiabicyclo[3.3.1]-nonane							155.5-8	Birch et al. (1958) A
1-Thiahexahydroindan	<u>cis</u> <u>trans</u>	atm. atm.					-44 -11.5	Birch et al. (1958) A Birch et al. (1958) A

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Thiahexahydroindan								
 cis	95.5	16.5					188	Luttringhaus, Brechlin (1959)
trans	46 81 47	1.0 12 1.0						Luttringhaus, Brechlin (1959)
5-Thiahexahydroindan 	107-8	31						Anderson et al. (1959)
5-Thia-3-nonen-1-yne $C{\equiv}C\text{-}C{=}C\text{-}S\text{-}C_4$	73-5	3	0.9130	20/4	1.5240	20/D		Guseinov (1959)
4-Thia-4,5,6,7-tetrahydroindan 	71-2	4	1.0595	20/20	1.5526	20/D		Mayer, Liebster (1957)
(1-Thiapropyl)benzene 	56.3 203-4	2.9						Gasparic (1958) Pochinok, Limarenko (1955)
	Oxidation potential: Luk'yanitsa, Gai'pern (1956)							
(2-Thiapropyl)benzene 	87.0-8.5	6	1.0274	20/4	1.5630	20/D	-28.4 1/ -28.4	Obolentsev et al. (1958) A Obolentsev et al. (1958) B
	87.0-8.5 87.0-8.5	6 6	1.0274 1.0274	20/4 20/4	1.5630 1.5630	20/D 20/D		Obolentsev et al. (1957) Obolentsev et al. (1956)
	Activation energy: Braye et al. (1955)							
2-Methyl-1-(1-thiaethyl)-benzene 	55.6 96	1.5 16						Gasparic (1958) Leandri, Mangini (1954)
4-Methyl-1-(1-thiaethyl)-benzene 	61.5 52-4	2.2 1	1.0267	20/4	1.5742	20/D		Gasparic (1958) Lumbrosa, Marschalk (1952)
(1-Thia-2-propenyl)-benzene 	78 65-70 62-4 56 94 75-6 94 69-70 72-5 77-8	3 6.8 5.5 4 25 11 25 4 6 12	1.1868	25/25	1.5972 1.5672 1.5800-47 1.5890	25/D 30/D 26.7/D 20/D		Nedwick, Snyder (1960) Parham, Motter (1959) Shostakovskii et al. (1959) C Angeletti et al. (1957) A Bohme, Bentler (1956) Montanari (1956) A Reppe et al. (1956) Bordwell, Pitt (1955)
	76.5 200-1	4 760	1.0417	20/4	1.5888	20/D		Shostakovskii et al. (1955)
Phenylthiacyclopropane 							-18 to -20	Noshay (1959)
2-Thiaindan 	62-72	2					<-20	Cava, Deana (1959)

1/ -27.6° for zero impurity.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
(1-Thia-2-propynyl)-benzene 	72 86-8 91-1.5 86-8 86-8 78-9	6.5 14 16 14 14 7			1.5913 1.5938	25/D 25/D		Parham et al. (1959) B Angeletti et al. (1957) A Angeletti et al. (1957) B Montanari, Negrini (1957) Montanari (1956) B Parham, Stright (1956)
5-Thiaindene 							89-90.5	Anderson et al. (1959)
4-Thiadecane C_3-S-C_6	79.5-9.7 78.8-9.5	9.5 9	0.8448	20/4	1.4555 1.4554	20/D 20/D		Tarbell, Lovett (1956)
2-Methyl-5-thianonane C-C(C)-C_2-S-C_4	105-8	20	.8380	20/4	1.4540	20/D	-58	Obolentsev et al. (1958) B Obolentsev et al. (1957)
2-Thia-3-decene C-S-C=C_7	88-9	14			1.4780	20/D		Bateman et al. (1956)
3-Thia-4-decene C-C-S-C=C_6	87-90	12			1.4760	20/D		Boonstra et al. (1959)
4-Thia-1-decene C=C-C-S-C_6	78-8.5	9-10	.8626	20/4	1.4688	20/D		Tarbell, Lovett (1956)
4-Thia-2-decene C_2=C-S-C_6	79.5-80.5 86.7-6.9	9.5 12.5-13	.8646	20/4	1.4760 1.4762	20/D 20/D		Tarbell, Lovett (1956)
(1-Thiapentyl)cyclo-pentane 	95	15			1.4818	20/D		Hopkins, Rall (1957)
(2-Methyl-1-thiabutyl)-cyclopentane 	86	15			1.4812	20/D		Hopkins, Rall (1957)
(3-Methyl-1-thiabutyl) cyclopentane 	88	15			1.4791	20/D		Hopkins, Rall (1957)
(2,2-Dimethyl-1-thia-propyl)cyclopentane 	73	15			1.4784	20/D		Hopkins, Rall (1957)
2-Butyl-1-thiacyclohexane 	59 75-6	1.7 4			1.4858 1.4845	20/D 20/D		Hopkins, Rall (1957)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Butyl-1-thiacyclohexane	90 1/230.5	12 736	0.9261	20/4	1.4878	20/D		Onesta, Castelfranchi (1959)
2-(1-Methylpropyl)-1-thiacyclohexane					1.4854	20/D		Hopkins, Hall (1957)
2-(2-Methylpropyl)-1-thiacyclohexane	52	0.6			1.4825 1.4827	20/D 20/D		Hopkins, Hall (1957)
2-Pentyl-1-thiacyclopentane	113 79.5-80.5 79.5-80.5	31 2 2	.9126 .9131 .9131	20/4 20/4 20/4	1.4824 1.4827 1.4827	20/D 20/D 20/D		Motari et al. (1959) Obolentsev et al. (1958) A Obolentsev et al. (1956)
2-(3-Methylbutyl)-1-thiacyclopentane	114-15 218.4	32 764	.9139	20/4	1.4821	20/D		Onesta, Feretti (1955)
3-(3-Methylbutyl)-1-thiacyclopentane	87-8	10	.9196	20/4	1.4868	20/D		Yur'ev et al. (1956)
2,5-Dimethyl-3-propyl-1-thiacyclopentane	63-4 197-8	3 747	.8989	20/4	1.4770	20/D		Yur'ev et al. (1958) B
3-Thia-4-decyne	70-71	3	.885	15/15	1.4845	20/D		Boonstra et al. (1959)
1-(2-Methyl-1-thiapropyl)-2-cyclohexene	84	14			1.5062	20/D		Bateman, Shipley (1955)
2-(1-Butenyl)-1-thiacyclohexane	100	15						Eastman, Kritchevsky (1959)
4-Butyl-1-thia-3-cyclohexene	100	13			1.5054	20/D		Onesta, Castelfranchi (1959)
5-(1-Thiapropyl)-2-norbornene	53.5-4	2	.9957	20/4	1.5160	20/D		Shostakovski et al. (1958)

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Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Thia-1,2,3,4,5,6,7,8-octahydroazulene 	85-6	4	1.0437	20/20	1.5473	20/D		Mayer, Liebster (1958)
4,7-Methano-2-thiahexahydroindan  endo cis	247±2	770					1/ 123.5-5	Birch et al. (1956) B
(1-Thiabutyl)benzene 	69.1 75-6 75-6 75-6	2.9 3 3 3	 1.0100 1.0100 1.0100	 20/4 20/4 20/4	1.5560 1.5560 1.5560	20/D 20/D 20/D	-45.4	Gasparic (1958) Obolentsev et al. (1958) A Obolentsev et al. (1958) B Obolentsev (1957) Obolentsev et al. (1956)
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
(3-Thiabutyl)benzene 	70-1 98-100	11 6			1.5494	24.5/D		Saunders, Williams (1957) Truce, Simms (1956)
(2-Methyl-1-thiapropyl)benzene 	83 83 61	10.0 10.0 3.1			1.5436 1.5439	25/D 25/D		Zimmerman, Thyagarajan (1960) Gasparic (1958)
(1-Methyl-2-thiapropyl)benzene 	91-2 98	12 18			1.5478 1.5500	25/D 20/D		Harvey et al. (1960)
2-Methyl-1-(1-thiapropyl)benzene 	61.8	1.6						Gasparic (1958)
4-Methyl-1-(1-thiapropyl)benzene ethyl p-tolyl sulfide 	91-3 62.1	8 2			1.5558	25/D		Adams, Ferretti (1959) B Gasparic (1958)
4,7-Methano-2-thia-3a,4,7,7a-tetrahydroindan  endo cis	116-20	18			1.5550	20/D		Birch et al. (1956) B
(1-Thia-2-butenyl)benzene 	111-13 79-80 225-6 79-80 225-6 101-2 113-14	20 3 740 3 740 13-13.5 24	1.0302 1.0328 1.0328 	20/4 20/4 20/4 	1.5849 1.5850 1.5850 1.5832	20/D 20/D 20/D 20/D		Kul'bovskaya et al. (1960) Karaulova et al. (1957) A Karaulova et al. (1957) B
(1-Thia-3-butenyl)benzene 	47.3-7.9 75.3 114 220.5-1 97.5-8.0	0.2 3 25 742 14	1.0257	20/4	1.5735 1.5761	20/D 20/D	-48 to -46.5	Karaulova et al. (1957) B Barnard (1956)
	Oxidation Potential: Luk'yanitsa, Gal'pern (1956)							

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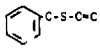
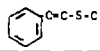
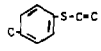
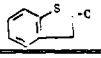
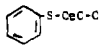
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
(2-Thia-3-butenyl)-benzene	96-8	10						Nedwick, Snyder (1960)
	98	10	1.0378	25/25	1.5773	25/D		Schneider (1959) A
	95-6.5	10			1.5769	25/D		Schneider (1959) B
	73	3						Reppe et al. (1956)
	90-90.5	7	1.0347	20/4	1.5794	20/D		Shostakovskii (1955)
(3-Thia-1-butenyl)-cis benzene	101.5	5						Truce et al. (1956) C
	101.5	4						Truce, Simms (1956)
	107.6-15	5						
								
(2-Methyl-1-thia-2-propenyl)benzene	68-9	6	1.0162	20/4	1.5690	20/D		Kul'bovskaya et al. (1960)
	74-5	7.5						
								
2-Methyl-1-(1-thia-2-propenyl)benzene	98-100	15						Angeletti et al. (1957) A
	98-100	14						Reppe et al. (1956)
								
4-Methyl-1-(1-thia-2-propenyl)benzene	102-4	16						Angeletti et al. (1957) A
	95	10						Reppe et al. (1956)
	212							
	78	4.0			1.5727	20/D		Truce et al. (1956) B
								
1-Thiatetralin	115	12			1.6203	/D		Luttringhaus, Engelhard (1960)
	124-6	10						Angelini, Grandolini (1956)
								
2-Methyl-1-thiaindan	118-20	21			1.5905	20.5/D		Karaulova et al. (1958)
	123	24.5	1.0859	20/4	1.5922	20/D		
	111-25	18						Much, Kiss (1956)
								
3-Methyl-1-thiaindan	96.5-7	6	1.0980	20/4	1.5969	20/D		Karaulova et al. (1959)
	94.5	4.5			1.5953	20/D		
	96-7	6.5			1.5960	22/D		Karaulova, Gal'pern (1959)
	119-20	22			1.5959	20/D		
	94.5	4.5			1.5953	20/D		Karaulova et al. (1958)
	96.5-7	6	1.0980	20/4	1.5969	20/D		
(1-Thia-2-butynyl)-benzene	79-80	3	1.0328	20/4	1.5850	20/D		Karaulova et al. (1957)
	225-6	740						
	101-102	13-13.5			1.5832	20/D		
	113-14	24						
	78-81	0.75			1.5953	25/D		Parham, Stright (1956)
(1-Thia-3-butynyl) benzene	104-10	10	1.0735	20/4	1.6006	20/D		Sato, Miyamoto (1956)
								
2-Methyl-1-(1-thia-2-propynyl)benzene	76-7	3						Angeletti et al. (1957) A
	76-7	3						Montanari, Negrini (1957)
								

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Methyl-1-(1-thia-2-propynyl)benzene	77-9 77-9 73.0-7.0	3 3 2.5			1.5721	20/D		Angeletti et al. (1957) A Montanari, Negrini (1957) Truce et al. (1956) B C
1-Thianaphthalene	123-4	12			1.6397	/D		Luttringhaus, Engelhard (1960)
6-Thiaundecane C_5-S-C_5	89-90 54-55 86-7 122-4 180-2 86-7 86-9	12-13 2-3 12-13 33-34 12-13 12	0.8452 .8428 .8446 .8446 .8437	15/4 15/4 15/4 15/4 15/4	1.4568 1.4574 1.4572 1.4563 1.4572 1.4568	15/D 15/D 15/D 20/D 15/D 15/D		Tinyakova et al. (1958) A Tinyakova et al. (1958) B Davey, Edwards (1957-8) Geigy (1957) Tinyakova et al. (1956)
2,8-Dimethyl-5-thia-nonane C-C-C_2-S-C_2-C-C C C	68-9 59-60 103-5 90-2 103-5	3 1.5 9 10 9	 .8432 .8352 .8432	 20/4 20/4 20/4	1.4515 1.4520 1.4522 1.4537 1.4522	21.5/D 20/D 20/D 20/D 20/D	 1/ -70.6 -74.6	Karaulova, Gal'pern (1959) Obolentsev et al. (1958) A Obolentsev et al. (1958) B Obolentsev et al. (1957) Obolentsev et al. (1956)
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
3,5-Diethyl-4-thia-heptane $C_2-C-S-C-C_2$ C_2 C_2	79	9						Asinger et al. (1959)
3-Thia-1-undecene C=C-S-C_8	106-7	13						Reppe et al. (1956)
3-Thia-4-undecene $C_2-S-C=C_7$	46	0.01			1.4755	20/D		Bateman et al. (1956)
5-Ethyl-3-thia-1-nonene C=C-S-C-C-C_4 C_2	88.8 89	10 10	.8655	25/25	1.4602 1.4602	25/D 25/D		Nedwick, Snyder (1960) Schneider (1959) A
(2-Methyl-1-thiabutyl) cyclohexane	104	15			1.4852	20/D		Hopkins, Rall (1957)
(1-Thiahexyl)cyclo-pentane	106	15			1.4805	20/D		Hopkins, Rall (1957)
2-Pentyl-1-thiacyclo-hexane	60 67	0.3 0.8			1.4829 1.4835	20/D 20/D		Hopkins, Rall (1957)

1/ -70.5° for zero impurity

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Pentyl-1-thiacyclohexane 	101 1/248	12 756	0.9239	20/4	1.4862	20/D		Onesta, Castelfranchi (1959)
2,3-Dimethyl-6-isopropylthiacyclopentane 	86-9	8			1.4805	20/D		Bateman et al. (1958) A
2-Hexyl-1-thiacyclopentane 	134	31	.9111	20/4	1.4817	20/D		Notari et al. (1959)
3-Hexyl-1-thiacyclopentane 	121-2	16	.9170	20/4	1.4870	20/D		Yur'ev et al. (1956)
2,5-Dimethyl-3-butyl-1-thiacyclopentane 	210-211 210-211	748 748	.8930 .8930	20/4 20/4	1.4757 1.4757	20/D 20/D		Yur'ev, Rozantsev (1960) Yur'ev et al. (1958) A
2,5-Dimethyl-3-isobutyl-1-thiacyclopentane 	208-9 208-9	752 752	.8922 .8922	20/4 20/4	1.4740 1.4740	20/D 20/D		Yur'ev, Rozantsev (1960) Yur'ev et al. (1958) A
2-Methyl-2-ethyl-5-isopropyl-1-thiacyclopentane 	86.5	12			1.4765	20/D		Bateman et al. (1957)
6-Thia-1,10-undecadiene 	100-2	11-12			1.4806	25/D		Butler, Price (1959)
1-(2,2-Dimethyl-1-thiapropyl)-2-cyclohexene 	97	14			1.5015	20/D		Bateman, Shipley (1955)
4-Pentyl-1-thia-3-cyclohexene 	105	10			1.5038	20/D		Onesta, Castelfranchi (1959)
2-Cyclopentyl-1-thiacyclohexane 	o2 78	0.2 0.5			1.5182 1.5124	20/D 20/D		Hopkins, Rall (1957)
2-Methyl-2-ethyl-5-isopropenyl-1-thia cyclopentane 	98-100	18			1.4895	20/D		Bateman et al. (1958) A

1/ Decomposition

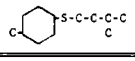
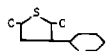
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1,3,3-Trimethyl-2-thia-bicyclo[2.2.2]octane	72	5	0.9732	20/4	1.5050	20/D		Weitkamp (1959)
4,7,7-Trimethyl-6-thia-bicyclo[3.2.1]octane (-) cis	79-80	5			1.509	20/D		Weitkamp (1959)
(+) trans	224 79	745 5	1.0016	20/4	1.51798	20/D	-23	
(-) trans	84	5	1.0016	20/4	1.5180	20/D		
	Optical Rotation: Weitkamp (1959)							
4,7,7-Trimethyl-6-thia-bicyclo[3.2.1]-3-octene	79.5	5	1.0057	20/4	1.5250	20/D		Weitkamp (1959)
	Optical rotation: Weitkamp (1959)							
2-Thia-4,7-ethanohexa-hydroindan  endo cis	277±2	770					1/ 56-8	Birch et al. (1956) B
(1-Thiapentyl)benzene 	78-83	2.3			1.5432-33 1.5420	28/D 28.7/D		Parham, Motter (1959)
(3-Methyl-1-thiabutyl)-benzene 	103-4.5	11			1.5410	25/D		Royals, Neal (1956)
(1-Methyl-2-thiabutyl)-benzene 	92-3	8						Bordwell, Pitt (1955)
(2,2-Dimethyl-1-thia-propyl)benzene 	90-2	15			1.5307	25/D	-13	De la Mare, Vernon (1956)
2-Methyl-1-(1-thia-butyl)benzene 	68.2	1.1						Gasparic (1958)
4-Methyl-1-(1-thiabutyl)-benzene 	55.6	0.8						Gasparic (1958)

1/ Sublimes

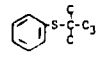
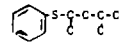
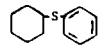
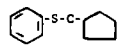
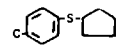
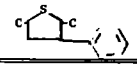
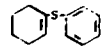
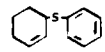
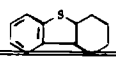
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Methyl-1-(3-thiabutyl)-benzene 	49-50	0.3			1.5450	21/D		Saunders, Williams (1957)
2-Methyl-1-(2-methyl-1-thiapropyl)benzene 	61.4	1.2						Gasparic (1958)
4-Methyl-1-(2-methyl-1-thiapropyl)benzene 	65.2	1.4						Gasparic (1958)
2,4,6-Trimethyl-1-(1-thiaethyl)benzene 	74	1			1.5543	20/D		Illuminati (1958)
(3-Thia-1-pentenyl)-benzene 	135-6	11			1.6133	25/D		Adams, Ferretti (1959) B
(3-Thia-4-pentenyl)-benzene 	98	10	1.0070	25/25	1.5612	25/D		Schneider (1959) A
(4-Thia-1-pentenyl)-benzene 	142-4	14						Baliah, Shanmuganathan (1958)
(3-Methyl-1-thia-2-butenyl)benzene 	111-12	9			1.5782	25/D		Adams, Ferretti (1959)
2-Methyl-1-(1-thia-2-butenyl)benzene 	129-33 129-33 129.5-134	25 25 25	1.0175 1.0175 1.0184	20/4 20/4 20/4	1.5762 1.57b2 1.5782	20/D 20/D 20/D		Karaulova et al. (1957) A Karaulova et al. (1957) B
2-Methyl-1-(1-thia-3-butenyl)benzene 	96-7 96-7	5 5	1.0125 1.0125	20/4 20/4	1.5707 1.5707	20/D 20/D		Karaulova et al. (1957) A Karaulova et al. (1957) B
4-Methyl-1-(1-thia-2-butenyl)benzene 	131-6 131-5	25 25	1.0119 1.0129	20/4 20/4	1.5746 1.5746	20/D 20/D		Karaulova et al. (1957) B

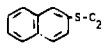
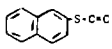
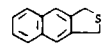
Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
4-Methyl-1-(1-thia-3-butenyl)benzene	127-8	25	1.0042	20/4	1.5665	20/D		Karsulova et al. (1957) B
4-(2-propenyl)-1-(1-thiaethyl)benzene							49-50	Vander Linden et al. (1957)
6-Methyl-1-thiaterralin	140-2	15						Angelini, Grandolini (1956)
4-Methyl-1-(1-thia-3-butynyl)benzene	124	15	1.0408	20/4	1.5787	20/D		Sato, Miyamoto (1956)
4-Phenyl-1-thia-2-cyclopentene							78.5-9.6	Wynberg et al. (1957)
(1-Thia-2-penten-4-ynyl)-benzene	92-2.5 92-2.5	2 2	1.0739 1.0739	20/4 20/4	1.6298 1.6298	20/D 20/D		Shostakovskii et al. (1959) A Shostakovskii et al. (1959) B
2-Thiadodecane	118-19 132-8	11 20			1.4567	25/D		Burness (1959) Webb (1957)
2-Heptyl-1-thiacyclo-pentane	139	22	0.9104	20/4	1.4818	20/D		Motari et al. (1959)
2,5-Dimethyl-3-pentyl-1-thiacyclopentane	237-8 237-8	765 765	.8868 .8868	20/4 20/4	1.4734 1.4734	20/D 20/D		Yur'ev, Rozantsev (1960) Yur'ev et al. (1958) A
2,5-Dimethyl-3-(3-methyl-butyl)-1-thiacyclo pentane	233-4 233-4	752 752	.8862 .8862	20/4 20/4	1.4736 1.4736	20/D 20/D		Yur'ev, Rozantsev (1960) Yur'ev et al. (1958) A
3-Thia-11-dodecyne	129-30	12	.8854	20/4	1.4771	20/D		Zakharkin (1955)
Cyclopentylcyclohexyl-thiamethane	134	15			1.5118	20/D		Hopkins, Ball (1957)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Cyclohexyl-1-thiacyclohexane 	88	1.4			1.5136	20/D		Hopkins, Hall (1957)
1-Phenyl-2-thiahexane 	130-30.5	5	0.9897	20/4	1.5341	20/D		Obolentsev et al. (1957)
(2,2-Dimethyl-1-thiabutyl)benzene 	96-8	9	.9713	20/4	1.5387	20/D		Kul'bovskaya (1960)
(3,3-Dimethyl-2-thiabutyl)benzene t-butyl benzyl sulfide 	129-31	21						Bordwell, Pitt (1955)
4-Methyl-1-(2-methyl-1-thiabutyl)benzene 	81-3	0.3			1.5338	20/D		Bordwell, Landis (1957)
2,4,6-Trimethyl-1-(1-thiapropyl)benzene 	79	1			1.5465	25/D		Adams, Ferretti (1959) B
2,3,5,6-Tetramethyl-1-(1-thiaethyl)benzene 							75-6	Illuminati (1958)
1-Phenyl-3-thia-5-hexene 	123-6	5						Fehnel, Resnick (1955)
4-Methyl-1-(1-thia-3-pentenyl)benzene  trans cis	83-6 83-6	2 2			1.5634 1.5634	20/D 20/D		Truce et al. (1956) C Truce, Simms (1956)
4-Methyl-1-(2-methyl-1-thia-2-butenyl)benzene  cis trans	67-9 78-80	0.3 0.3			1.5580 1.5600	28/D 28/D		Bordwell, Landis (1957)
3-(4-Methylphenyl)-1-thiacyclopentane 	127.5-8.5	4	1.0645	20/4	1.5847	20/D		Yur'ev et al. (1956)
2-(1-Thiaethyl)naphthalene 	165-9	15					60-2 60-1	Furman et al. (1960) Jacques (1955)

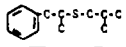
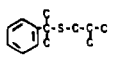
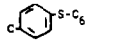
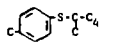
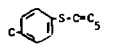
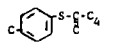
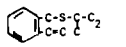
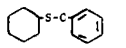
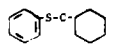
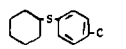
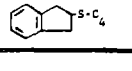
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
4-Thiatridecane C_3-S-C_9	132-2.5	5	0.8426	20/4	1.4561	20/D	1/ -29.8 -29.8	Obolentsev et al. (1958) B Obolentsev et al. (1957)
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
7-Thiatridecane C_6-S-C_6	144-6 150-2 132-46	21 24 13			1.4590 1.458	20/D 25/D		Davey, Edwards (1957-8) Foster et al. (1956)
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
6-Propyl-5-thiadecane C_4-S-C(C_4)-C_3	119-20 119-20 119-20	8 8 6	.8429 .8429 .8429	20/4 20/4 20/4	1.4580 1.4580 1.4580	20/D 20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1957) Obolentsev et al. (1956)
2,4,6,8-Tetramethyl-5-thianonane C-C-C-C-S-C-C-C-C C C C C	103-5 103-5	15 15	.8936 .8936	20/4 20/4	1.4528 1.4528	20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1956)
3-Thia-1-tridecene C=C-S-C_{10}	114-16	5			1.4715	20/D		Nedwick, Snyder (1960)
4-Methyl-1-(4-methyl-1-thiapentyl)cyclohexane 	133-6 133-6 133-6	15 15 15	.8995 .8995 .8995	20/4 20/4 20/4	1.4760 1.4760 1.4760	20/D 20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1957) Obolentsev et al. (1956)
2-Octyl-1-thiacyclopentane 	161	29			1.4813	20/D		Notari et al. (1959)
7-Thia-1,12-tridecadiene C=C_5-S-C_5=C	98-100.5	4-5			1.4782	25/D		Butler, Price (1959)
Dicyclohexylthiamethane 	82-4 97	0.4 1	.9786	15/4	1.5154 1.5156	20/D 18.5/D		Landa (1959) Tinyakova et al. (1958) B
	Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
2,5-Dimethyl-3-cyclohexyl-1-thiacyclopentane 	117-18	10	1.0102	20/4	1.5510	20/D		Yur'ev, Rozantsev (1960)
4-Methylene-1-(2-thiahexyl)cyclohexane 	70	0.2			1.5135	25/D		Benson et al. (1959)
(1-Thiaheptyl)benzene 	70-9	0.3			1.5302 1.5305	26.7/D 26.5/D		Parham, Motter (1959)
(3-Thiaheptyl)benzene 	138-9 145	10 12			1.5278	20/D		Klamann, Bertsh (1955)

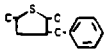
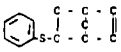
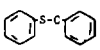
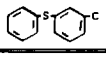
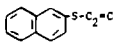
1/ -29.6° for zero impurity

Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C.	Reference
(2,2-Dimethyl-1-thiapentyl)benzene 	83-4	2	0.9575	20/4	1.5312	20/D		Kul'bovskaya et al. (1960)
(2,4-Dimethyl-1-thiapentyl)benzene 	122-4 122-4 122-4	14 14 19	.9510 .9510 .9510	20/4 20/4 20/4	1.5245 1.5245 1.5245	20/D 20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1957) Obolentsev et al. (1956)
Cyclohexylphenylthiamethane 	111 150-2 150-2 145-6	0.1 12 12 12	1.0314	22/4	1.5680 1.5656	20/D 22/D		Saville (1958) Eliel, Ro (1957) Eliel, Ro (1956) Zavgorodnii (1955)
2-Cyclopentyl-1-phenyl-1-thiaethane 	131.5-2.5	5			1.5638	25/D		Royals, Neal (1956)
Cyclopentyl(4-methylphenyl)thiamethane 	155-6	16			1.5628	25/D		Weinstock et al. (1958)
2,5-Dimethyl-3-phenyl-1-thiacyclopentane 	95-6	3	1.0260	20/4	1.5650	20/D		Yur'ev, Rozantsev (1960)
(1-Cyclohexenyl)phenylthiamethane 	117-25	1						Goering et al. (1956)
(2-Cyclohexenyl)phenylthiamethane 2-cyclohexenyl phenyl sulfide 	89-90 77	0.01 0.1			1.5920 1.5929	20/D 20/D		Saville (1958) Bateman, Shipley (1955)
2,4-Propano-1-thiatetralin 	100	0.2			1.6030	22/D		Birch, Nasipuri (1959)
1,2,3,4,4a,9a-Hexahydro-9-thiafluorene 	143-5	5						Mitra, Tilak (1956)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-(1-Thiapropyl)naphthalene 	105-7	0.3			1.6496	25/D	18-21	Furman et al. (1960) Ferretti (1959) B
Diphenylthiamethane 	126.5 143-5 126-30 159-61 162-3 152-3 104 162-5 162-3 115-16 1/ 296	3 8 5 19 18 14 4 18 18 2	1.1162 1.1114 1.1162	20/4 20/4 20/4	1.6299 1.6323 1.6323 1.6323	22.5/D 20/D 20/D 20/D		Karaulova, Gal'pern (1959) Hauptmann et al. (1958) Obolentsev et al. (1958) A Wittig, Benz (1958) Kawahara (1957) A Obolentsev et al. (1957) Obolentsev et al. (1956) Bordwell, Pitt (1955) Florin, Mears (1955)
	Dipole moment: Gomel et al. (1959) Dielecrric relaxation time: Fischer (1956) Oxidation potential: Luk'yanitsa Gal'pern (1956)							
2-(1-Thia-2-propenyl) naphthalene 							20-1	Reppe et al. (1956)
1,3-Dihydro-2-thia-benz[f]indene 							169.5-70.5	Cava, Shirley (1960)
2,3-Dihydro-1-thia-benz[e]indene 	183-5	18						Banfield et al. (1956) B
1,2-Dihydro-3-thia-benz[e]indene 							86.5-87	Davies, Porter (1956)
1-Thiaphenalene 							124	Desai et al. (1957)
2-Thiatetradecane C-S-C_{12}	156-9	17			1.4582	25/D		Burness (1959)
2-Nonyl-1-thiacyclo-pentane 	177	30			1.4800	20/D		Notari et al. (1959)
1-(2-Thiaoctyl)benzene 	140-3	9	0.952	20/4	1.528	20/D		Ostrowski, Leanianski (1956)

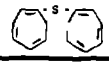
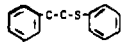
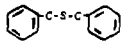
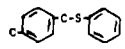
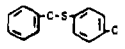
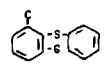
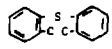
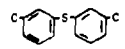
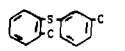
1/ Decomposition

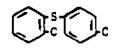
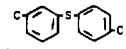
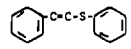
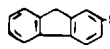
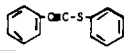
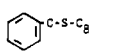
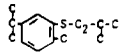
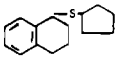
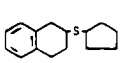
Name and skeleton	Boiling point °C	Boiling point mm. Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
(2,5-Dimethyl-3-thiahexyl)benzene 	71-3	0.1			1.5189	25/D		Walling, Rabinowitz (1959) B
(1,1,4-Trimethyl-2-thiapentyl)benzene 	66.0-7.7	0.1			1.5221	25/D		Walling, Rabinowitz (1959) B
4-Methyl-1-(1-thia-heptyl)benzene 	120-21	1.5-2			1.5298	20.3/D		Truce, Simms (1956)
4-Methyl-1-(2-methyl-1-thiahexyl)benzene 	106-9	1.52			1.5272	20/D		Truce, Simms (1956)
4-Methyl-1-(1-thia-2-heptenyl)benzene 	150-60	10			1.5545	20/D		Truce, Simms (1956)
4-Methyl-1-(2-methenyl-1-thiahexyl)benzene 	140-1.5	10			1.5475±.0010	20/D		Truce, Simms (1956)
2-Ethenyl-1-(3-methyl-2-thiapentyl)benzene								
d-form 	90	0.8	0.9836	25/4	1.5565	25/D		Overberger, Palmer (1956)
	Optical rotation: Overberger, Palmer (1956)							
1-Cyclohexyl-2-phenyl-1-thiaethane 	88-9	0.01			1.5556	22/D		Saville (1958)
1-Phenyl-2-cyclohexyl-1-thiaethane 	151-2	7			1.5592	25/D		Royals, Neal (1956)
Cyclohexyl-4-methyl-phenylthiamethane 	170-2	17						Weinstock et al. (1958)
2-(1-Thiapentyl)indan 	118-19	2			1.5475	20/D		Oswald (1960)

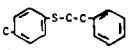
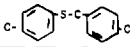
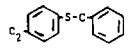
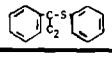
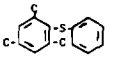
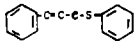
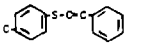
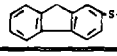
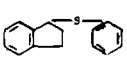
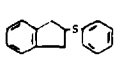
Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
2,5-Dimethyl-3-phenylmethyl-1-thiacyclopentane 	111-12	3	0.9783	20/4	1.5300	20/D		Tur'ev, Rozantsev (1960)
2-(2-Cyclohexenyl)-1-(1-thiaethyl)benzene 	110	0.2						Birch, Haspuri (1959)
Phenyl-5-(2-norbornenyl)-thiamethane 	107-8	1	1.0982	20/4	1.5925	20/D		Shostakovskii et al. (1958)
1,2-Diphenylthiaethane 	171-93	12					44 41-2 43-4	Clark et al. (1957) Lehto, Shirley (1957) Bordwell, Pitt (1955)
2-Phenyl-1-(1-thiaethyl)benzene 	174-5	20						Cerniani, Passerini (1956)
Phenyl(2-methylphenyl)-thiamethane 	107-25 164	0.5 12						Truce, Ray (1959) Adams et al. (1957)
Phenyl(3-methylphenyl)-thiamethane 	167	12						Adams et al. (1957)
2-(1-Thia-3-butenyl)-naphthalene 	153.3-5.3	4.2						Weinstein, Pierson (1958)
9,10-Dihydro-9-thiaanthracene 	1/ 115	4					128-9 127.5-7.7	Heacock et al. (1958) Mayer (1957)
2-Thiapentadecane $C\text{-}S\text{-}C_{13}$	314	760	0.8464 .8428	20/4 25/4	1.4621 1.4599	20/D 25/D	3	API RP 44
3-Thiapentadecane $C_2\text{-}S\text{-}C_{12}$	107-8 141-2	0.5 5	.840	20/4	1.4592 1.460	25/D 20/D		Adams, Ferretti (1959) B Ostrowski, Lesnianski (1957)
5-Thiapentadecane $C_4\text{-}S\text{-}C_{10}$	146-7	9	.840	20/4	1.460	20/D		Ostrowski, Lesnianski (1957)

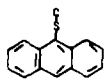
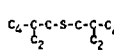
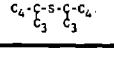
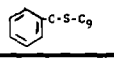
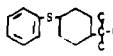
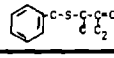
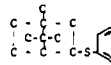
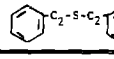
1/ Sublimes

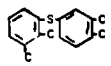
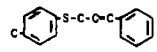
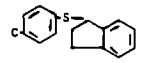
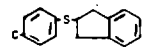
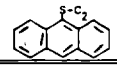
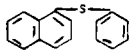
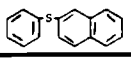
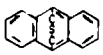
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
6-Thiapentadecane C_5-S-C_9	166-7	14	.842	20/4	1.461	20/D		Ostrowski, Lasnianski (1957)
8-Thiapentadecane C_7-S-C_7	184-6	34			1.4583	20/D		Davey, Edwards (1957-8)
2,5,7,10-Tetramethyl-6-thiaundecane C-C(C)-C_2-C(C)-S-C(C)-C_2-C(C)-C	129-30 129-30 129-30	12 12 12	0.8362 .8362 .8362	20/4 20/4 20/4	1.4538 1.4538 1.4538	20/D 20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1957) Obolentsev et al. (1956)
3-Thia-1-pentadecene C=C-S-C_{12}	124-6	1.7						Medwick, Snyder (1960)
4,4-Dimethyl-3-thia-1-tridecene C=C-S-C(C)(C)-C_9	88-9	1.5						Medwick, Snyder (1960)
Di-4-methylcyclohexyl-thiamethane	100.5-2.0 100.5-2.0	17 17			1.5100 1.5100	20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1956)
2-Methyl-1-phenyl-1-thiaoctane S-C(C)-C_6	157-9 158.5-60	15 15			1.5220	20/D		Eliel, Haber (1959) A Eliel, Ro (1957)
4-t-Butyl-1-(2,2-dimethyl-1-thiapropyl)-benzene C(C)(C)-C(C)(C)-S-	132	10					49.5-51	Bartkus et al. (1960)
3,3,5-Trimethyl-1-phenyl-2-thia-4-hexene C(C)-C-S-C(C)-C=C-C	133-4	6	.9735	20/4	1.5441	20/D		Pansevich-Kolyada, Osipenko (1958)
1-Phenyl-2-cycloheptyl-1-thiaethane C-S-	158-62	5-6			1.5628	25/D		Royals, Neal (1956)
2-(1-Thiapropyl)-1,4:5,8-dimethanotetralin S-C_2	122-3	2	1.0632	20/4	1.5464	20/D		Shostakovskii et al. (1958)
4-Methylphenyl-2-norbornylthiamethane S-C(C)-C(C)-C C-C-C	107-8	0.8			1.5756	20/D		Kwart, Miller (1956)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Di(1,3,5-cycloheptatrienyl)thiamethane 							37-8	Doering, Knox (1957)
1,3-Diphenyl-1-thiapropane 	160-2 178-81	3.5 11			1.6060	20/D		Brooks et al. (1957) Klemann, Bertsh (1955)
1,1-Diphenyl-2-thiapropane 							33	Bateman, Cunneen (1955)
1,3-Diphenyl-2-thiapropane 	130	0.1					48-9 48.5-9.0 47 49-50 47-50 48.5-9.0 49-50 48.5-9.0 49.5 51	Karaulova, Gal'pern (1959) Walling, Rabinowitz (1959) A Obolentsev et al. (1958) A Ping-Fang, Wan-Yi (1958) Brooks et al. (1957) Kawahara (1957) A Obolentsev et al. (1957) Yamasaki (1957) Obolentsev et al. (1956) Bateman, Cunneen (1955) Karaulova, Makrasov (1955)
	Oxidation potential: Lukyanitsa, Gal'pern (1956)							
1-Phenyl-2-(4-methylphenyl)-1-thiaethane 							69-70 69-70	Brooks et al. (1958) Stevenson et al. (1958)
2-Phenyl-1-(4-methylphenyl)-1-thiaethane 							45	Brooks et al. (1958)
Phenyl-2,6-dimethylphenylthiamethane 	112-22	1						Truce, Ray (1959)
Di(2-methylphenyl)-thiamethane 							64 63-4 63.5-4	Oksingendler, Gerasimenko (1957) Sanesi, Leandri (1956)
	Dipole moment: Sanesi, Leandri (1956)							
Di(3-methylphenyl)-thiamethane 	174-6 148	13 4						Hauptmann et al. (1958) Sanesi, Leandri (1956)
	Dipole moment: Sanesi, Leandri (1956)							
2-Methylphenyl-3-methylphenylthiamethane 	137	4						Sanesi, Leandri (1956)
	Dipole moment: Sanesi, Leandri (1956)							

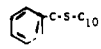
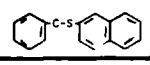
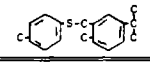
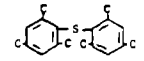
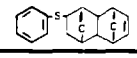
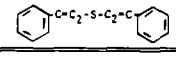
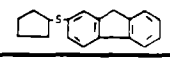
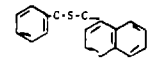
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Methylphenyl-4-methylphenylthiamethane 	138	4						Senasi, Leandri (1956)
	Dipole moment: Senasi, Leandri (1956)							
3-Methylphenyl-4-methylphenylthiamethane 	144	4						Senasi, Leandri (1956)
	Dipole moment: Senasi, Leandri (1956)							
1,3-Diphenyl-1-thia-2-propene 	134-5 150-1 146-7	0.3 1.5 1			1.6676	25/D	35-6.5	Adams, Ferretti (1959) B Brooks et al. (1957) Liu, Yu-Chang; Wang, Sue-Kwung (1957) Truce et al. (1956) B
2-(1-Thiaethyl)flourene 							135-60	Sawiki (1956)
6-Thia-5,7-dihydrodibenzo[a,c] cycloheptene 							89-90	Truce, Emrick (1956)
1,3-Diphenyl-1-thia-2-propyne 	155-8.5 155-7	2.0 2.5			1.6593-.6652 1.6629-.6644	25/D 25/D		Truce et al. (1956) B
2-Thiahexadecane methyl tetradecyl-sulfide 	134-40 330	0.35-0.5 760	0.8468 .8432	20/4 25/4	1.4594 1.4628 1.4607	25/D 20/D 25/D	11	Burness (1959) API RP 44
1-Phenyl-2-thiadecane	175-6	12	.943	20/4	1.5170 1.522	20/D 20/		Van Schooten et al. (1958) Ostrowski, Lesnianski (1956)
2-Methyl-5-isopropyl-1-(4-methyl-1-thiapentyl)benzene 	162-5	14						Proffit, Buchmann (1955)
Cyclopentyl-1-tetralyl-thiamethane 	158.5 158.1	2 2	1.0699 1.0680	20/4 20/4	1.5782 1.5880	20/D 20/D		Danilova, Tits-Skvortsova (1957) Tits-Skvortsova, Danilova (1956)
Cyclopentyl-2-tetralyl-thiamethane 	159-9.9 162-2.5	2 2	1.0586 1.0642	20/4 20/4	1.5720 1.5850	20/D 20/D		Danilova, Tits-Skvortsova (1958) Tits-Skvortsova, Danilova (1956)

Name and skeleton	Boiling point °C	mm Hg	Density d	°C.	Refractive index n	°C/line	Freezing point °C	Reference
2-(1-Thiahexyl)naptha-lene 							16-17	Furman et al. (1960)
3-Phenyl-1-(4-methyl-phenyl)-1-thiapropane 	182-5	11			1.6001	20/D		Klemmm, Beresh (1955)
1,2-Di(4-methylphenyl)-thiaethane 							67-8 67-8	Brooks et al. (1958) Stevenson et al. (1958)
2-Phenyl-1-(4-ethyl-phenyl)-1-thiaethane 	142-5	1.5						Brooks et al. (1958)
1,2-Diphenyl-1-thia-butane 	186-7	25					42	Briscoe et al. (1956)
Phenyl-2,4,6-trimethyl-phenylthiamethane 	176-7	10						Leandri, Mangini (1954)
1,4-Diphenyl-1-thia-3-butene 							76.5-7.5 78.5 77-8	Gierer, Alfredsson (1957) Briscoe et al. (1956) Bateman, Cunneen (1955)
3-Phenyl-1-(4-methyl-phenyl)-1-thia-2-propene  cis							64-4.5	Truce, Simms (1956)
2-(1-Thiapropyl)fluorene 							78-9	Sawiki (1956)
Phenyl-1-indanylthia-methane 	127-8	2			1.6306	20/D		Oswald (1960)
Phenyl-2-indanylthia-methane 	135-7	2						Oswald (1960)

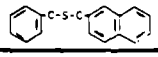
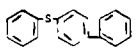
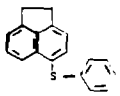
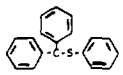
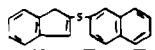
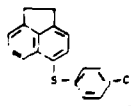
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
9-(1-Thiaethyl)anthracene 							65-6	Conway, Tarbell (1956)
2-Thiaheptadecane C-S-C_{15}	345	760	0.8471 .8435	20/4 25/4	1.4636 1.4615	20/D 25/D	15	API RP 44
9-Thiaheptadecane C_8-S-C_8	202-6	28-29			1.4622 1.4620	20/D 20/D		Davey, Edwards (1957-8) Van Schooten et al. (1958)
5,9-Diethyl-7-thiatridecane 	178-9	23			1.4622	25/D		Sumrell, Hornbaker (1958)
5,7-Dipropyl-6-thiaundecane 	135.5-6.0 135.5-6.0 135.5-6.0	2 2 2	.8403 .8403 .8403	20/4 20/4 20/4	1.4610 1.4610 1.4610	20/D 20/D 20/D	-53	Obolentsev et al. (1958) A Obolentsev et al. (1957) Obolentsev et al. (1956)
3-Thia-1-heptadecene C=C-S-C_{14}	105-6 105 105-6	0.15 0.15 0.15						Hedwick, Snyder (1960) Schneider (1959) A Schneider (1959) B
1-Phenyl-2-thiaundecane 	176-8	9	.938	20/4	1.520	20/		Ostrowski, Lesnianski (1956)
Phenyl(4-t-butylcyclohexyl)thiamethane  cis	165-9 184-6 188-9	7 13 14					39.7-40.6	Eliel, Haber (1959) A Eliel, Ro (1957) Eliel, Ro (1956)
trans	185 185-6 188-9	14 14 14						Eliel, Haber (1959) B Eliel, Ro (1957) Eliel, Ro (1956)
3-Methyl-4-ethyl-1-phenyl-2-thia-4-octene  dl-form	111	1.5			1.4820	20/D		Arcus, Smyth (1955)
Phenyl-3-(1,7,7-trimethylnorbornyl)-thiamethane 	119-21	0.1			1.5557	25/D		Van Tamelen, Grant (1959)
1,5-Diphenyl-3-thiapentane 	164-6	1.5						Brooks et al. (1957)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
(2,3-Dimethylphenyl)-(3,4-dimethylphenyl)-thiamethane 							55-7	Carruthers, Douglas (1959)
4-Phenyl-1-(4-methylphenyl)-1-thia-3-butene 							67-8	Jusle'n, Enkvist (1958) A
(4-Methylphenyl)-1-indanylthiamethane 	135-6	2			1.6193	20/D		Oswald (1960)
(4-Methylphenyl)-2-indanylthiamethane 	140-2	2					86-6.5	Oswald (1960)
9-(1-Thiapropyl)anthracene 	171	0.5						Adams, Ferretti (1959) B
Phenyl-1-naphthylthiamethane 							39-40.5	Weinstein, Pierson (1958)
Phenyl-2-naphthylthiamethane 							50-1 50.7-1.7 54-5	Furman et al. (1960) Weinstein, Pierson (1958) Adams et al. (1957)
9,10(2-Thiapropano)-anthracene 							1/ 266	El-Hewehi, Runge (1959)
7-Thiabenz[d,e]-anthracene 							79-80	Davies, et al. (1957)
2-Thiaoctadecane C-S-C_{16}	134-56 359	0.33-0.37 760	2/ 0.8473 .8438	20/4 25/4	2/ 1.4615 1.4642 1.4621	25/D 20/D 25/D	21	Burness (1959) API RP 44

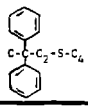
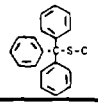
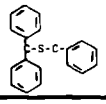
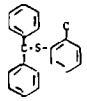
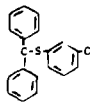
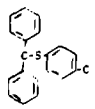
1/ Decomposition.
2/ Supercooled liquid.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1-Phenyl-2-thiadodecane 	187-9	9	0.934	20/4	1.518	20/		Ostrowski, Leanianski (1956)
2-Phenyl-1-(2-naphthyl)-1-thiaethane 							89.8-90.5	Weinstein, Pierson (1958)
2-Thianonadecane C-S-C_{17}	373	760	1/ .8476 .8441	20/4 25/4	1/ 1.4648 1.4627	20/D 25/D	25	API RP 44
9-Thianonadecane C_8-S-C_{10}	Surface tension: Mousseron, Bolle (1957)							
10-Thianonadecane C_9-S-C_9	165.5-6.5	2	.8430	20/4	1.4638	20/D	14.5	Obolentsev et al. (1957)
1-Phenyl-1-thiatridecane 							33-4	Adams, Ferretti (1959) B
1-(4-Methylphenyl)-2-(2-methyl-5-isopropyl)-1-thiaethane 	206	10						Profft, Buchmann (1955)
Di(2,4,6-trimethylphenyl)thiamethane 							91-2	Leandri, Mangini (1954)
Phenyl(4a,5,8,8a-tetrahydro 1,4:5,8 dimethano 2-tetralyl)thiamethane 	200-1	4					67-8	Shostakovskii et al. (1958)
1,7-Diphenyl-4-thia-1,6-heptadiene 	165-90	0.1					33-4	Gierer, Alfredsson (1957)
Cyclopentyl-2-fluorenyl-thiamethane 							94-5	Sawiki (1956)
1-Phenyl-3-(1-napthyl)-2-thiapropane 							57.0-7.3	Weinstein, Pierson (1958)

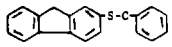
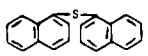
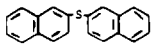
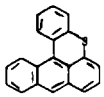
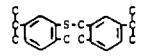
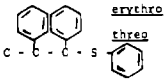
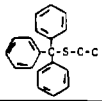
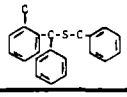
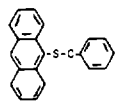
1/ Supercooled liquid

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1-Phenyl-1-(2-naphthyl)-2-thiapropane sulfide 							89.8-90.5	Weinstein, Pierson (1958)
Phenyl(4-biphenylyl)-thiamethane 							70	Adams et al. (1957)
Phenyl-5-acenaphthyl-thiamethane 							92-4	Aleykutty, Baliah (1955)
2-Thiaeicosane 	386	760	1/0.8479 1/ .8444	20/4 25/4	1/1.4654 1/1.4633	20/D 25/D	30	API RP 44
1-Phenyl-1-thiatetra-decane 	217-20	14	.919	20/4	1.510	20/		Ostrowski, Lesniewski (1956)
1-(1-Thiadecyl)tetralin 	190.7 200.7-1.7	2 2	.9717 .9719	20/4 20/4	1.5349 1.5429	20/D 20/D		Danilova, Tits-Skortsova (1957) Tits-Skortsova, Danilova (1956)
2-(1-Thiadecyl)tetralin 	196.5-7	2	.9639	20/4	1.5306	20/D		Danilova, Tits-Skortsova (1958)
1,2,2-Triphenyl-1-thiaethane 							78-9 77-8 78-9	Cheeseman (1957) Wang, Cohen (1957) Bordwell, Pitt (1955)
2-Indanyl-2-napthyl-thiamethane 							99-100	Oswald (1960)
(4-Methylphenyl)-5-acenaphthylthiamethane 							109-10	Aleykutty, Baliah (1955)

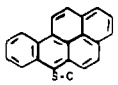
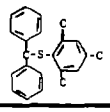
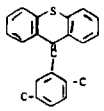
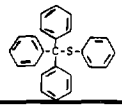
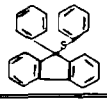
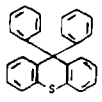
1/ Supercooled liquid.

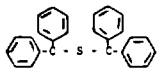
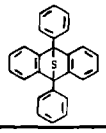
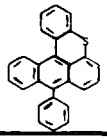
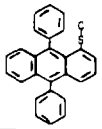
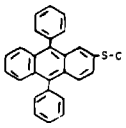
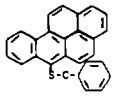
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Thiaheneicosane C-S-C_{19}	398	760	1/ 0.8482 1/ .8447	20/4 25/4	1/ 1.4659 1/ 1.4638	20/D 25/D	35	API RP 44
9-Thiaheneicosane C_8-S-C_{12}	Surface tension: Mousseron, Bolle (1956-7)							
11-Thiaheneicosane C_{10}-S-C_{10}	208-10	5			1.4612	26/D		Davey, Edwards (1957-8)
3-Thia-1-heneicosene C=C-S-C_{16}	180-5 183-5	0.45 2					33-4	Hedwick, Snyder (1960) Reppe et al. (1956)
2,2-Diphenyl-5-thia-nonane 	180-1	1.5			1.5682	25/D		Weinstock, Lewis (1957)
1,1,1-Triphenyl-2-thiapropane 							105-6	Bredereck et al. (1957)
1,1,3-Triphenyl-2-thiapropane 							71-2	Hoag, Calvin (1957)
2,2-Diphenyl-1-(2-methylphenyl)-1-thiaethane 							44.5-5.5	Gregg et al. (1955)
2,2-Diphenyl-1-(3-methylphenyl)-1-thiaethane 							60-1	Gregg et al. (1955)
2,2-Diphenyl-1-(4-methylphenyl)-1-thiaethane 							66-7	Gregg et al. (1955)

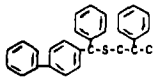
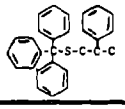
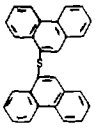
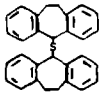
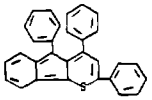
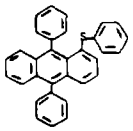
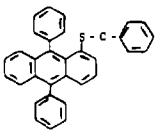
1/ Supercooled liquid.

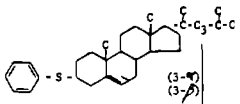
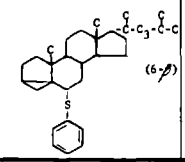
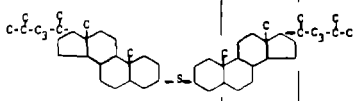
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Phenyl-1-(2-fluorenyl)-1-thiaethane 							133-40	Sawicki (1956)
Di(1-naphthyl)thiamethane 	1/289	15					110	Kulkarni, Jadhav (1956) Florin, Mears (1955)
Di(2-naphthyl)thiamethane 							150-1 147-9	Adams, Ferretti (1959) B Hardy et al. (1959)
5-Thianaphth[3,2,1-de]anthracene 							157-8	Panico (1955)
1,2-Di(2-methyl-5-isopropylphenyl)-thiaethane 	175-80	0.4						Profft, Buchmann (1955)
1,2,3-Triphenyl-1-thiabutane  erythro threo							103.5-4 41.5-3	Kingsbury, Cram (1960) Kingsbury, Cram (1960)
1,1,1-Triphenyl-2-thiabutane 							132-3	Schmid, Bolliger (1954)
1,3-Diphenyl-1-(2-methylphenyl)-2-thiapropane 	170	0.5					64 64	Bellido (1958) Teresa, Bellido (1956)
2-Phenyl-1-(9-anthranyl)-1-thiaethane 							99-100	Conway, Tarbell (1956)

1/ Decomposition.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
6-(1-Thiaethyl)benzo-[a]pyrene 							169-70.5	Conway, Tarbell (1956)
1-(2-Naphchyl)-1-thia-tridecane 							44-6	Furman et al. (1960)
2,2-Diphenyl-1-(2,4,6-trimethylphenyl)-1-thiaethane 							109-10	Wang, Cohen (1957)
10-(2,5-Dimethylphenyl-methenyl)-9,10-dihydro-9-thiaanthracene 	285-8	25					111	Buu-Hoi et al. (1957)
1-Phenyl-2-thiaocta-decane 							31-2	Ostrowski, Lesniewski (1956)
Tetraphenylthiaethane 							104 105-5.5	Schonberg, Aziz (1957) Mackenzie, Chuchani (1955)
Phenyl(9-phenyl-9-fluorenyl)thiamethane 							118-20 118	Cheeseman (1959) A Schonberg, Aziz (1957)
10,10-Diphenyl-9,10-dihydro-9-thia-anthracene 							210-11	Wittig et al. (1960)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1,1,3,3-Tetraphenyl-2-thiapropane 							67-8 66-7	Rahman, Singh (1959) Dannenberg, Rahman (1956)
9,10-Diphenyl-9,10-dihydro-9,10-thiamethanoanthracene 							212-14	Wittig et al. (1960)
9-Phenyl-5-thianaphth[3,2,1-de]anthracene 							177-9	Panico (1955)
9,10-Diphenyl-1-(1-thiaethyl)anthracene 							189	Panico (1955)
9,10-Diphenyl-2-(1-thiaethyl)anthracene 							170-1	Panico (1955)
2-Phenyl-1-(6-benzo[a]pyrenyl)-1-thiaethane 							168-71	Conway, Tarbell (1956)
9,10-Dihydro-10-(9,10-dihydro-9-anthrylidene)-9-thiaanthracene 							306-8	Ismail, El-Shafei (1957)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1,4-Diphenyl-1-(4-biphenylyl)-2-thiapentane  (±)							105-5.5	Arcus, Hallgarten (1957)
1,1,1,4-Tetraphenyl-2-thiapentane  (±)							118-18.5	Arcus, Hallgarten (1957)
Di(9-phenanthryl)thiamethane 							190	Wilputte, Martin (1956)
Di-5-(10,11-dihydro-5H-dibenzo[a,d]cyclo-heptenyl)thiamethane 							220	Mychajlyszyn, Protiva (1959)
1,3,9-Triphenyl-4-thiafluorene 							177-8	Boyd (1958)
Phenyl(9,10-diphenyl-1-anthranyl)thiamethane 							226	Panico (1955)
2-Phenyl-1-(9,10-diphenyl-1-anthranyl)-1-thiaethane 							182	Panico (1955)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Phenyl[10,13-dimethyl-17-(6-methyl-2-heptyl)-5-gonen-3-yl]thiamethane  (3-α) (3-β)							1/ 102,112 72-4	Shoppee et al. (1956) Shoppee et al. (1956)
3-α, 3-β	Optical rotation: Shoppee et al. (1956)							
Phenyl[10,13-dimethyl-17-(6-methyl-2-heptyl)-3,5-cyclo-6-gonyl]-thiamethane  (6-β)	Optical rotation: Shoppee et al. (1956)							
19-Thiaheptatriacontane C_{18}-S-C_{18}							101	El-Hewehi, Runge (1959)
Di[10,13-dimethyl-17-(6-methyl-2-heptyl)-3-gonyl]thiamethane 							197	Bourdon (1958) (B)
	Optical rotation: Bourdon (1958) (B)							

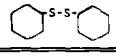
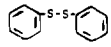
1/ Double freezing point

Name and empirical formula	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
C_4H_6S "Dihydrothiophene"	40-60	11						Kulka (1959)
$C_9H_{12}S$ "Methylthioxylene"	100-15	6						Delfs, Wedemeyer (1960)
$C_{12}H_{22}S$ "Ethylthiopinane"	100-8	7	0.9730	17.3/	1.5053	17.3/D		Nakatuschi, Yamaguchi (1957)
$C_{12}H_{10}S$ "Dihydrobenzothianaphthene"							76	Buckle, Mabih (1956)
$C_{32}H_{56}S$ "Ethylthiosqualane"	266-70	0.2	.9391	17.3/	1.5117	17.3/D		Nakatuschi, Yamaguchi (1957)

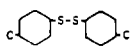
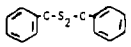
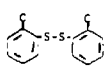
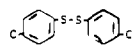
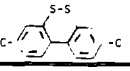
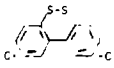
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,3-Dithiabutane	117	760						Joullie et al. (1959)
					1.5240	20/D		Bohme, Van Ham (1958)
	112	760	1.0623	20/4	1.5257	20/D		Feher et al. (1957)
C-S-S-C	106-8							Kawahara (1957) B
	107.2				1.5208	20/D		Gorin, Dougherty (1956)
	Retention time: Carson, Wong (1959) Vapor heat capacity, heat of vaporization: Hubbard et al. (1958) A Viscosity: Feher et al. (1957) Ultrasonic absorption coefficient: Heasel, Lamb (1956)							
1,2-Dithiacyclopentane								
	Heat of formation: Sunner, Wadso (1958)							
2,3-Dithiahexane								
$C-S-S-C_3$	Retention time: Carson, Wong (1959)							
3,4-Dithiahexane	149-52							Kametani et al. (1959)
	40-2	12						Baganz, Kruger (1958)
	43-4	12-13						
C-C-S-S-C-C	43-5	12			1.5100	20/D		Bohme, Van Ham (1958)
	59-61							Zbirovsky, Ettel (1958)
	45	13	0.9930	20/4	1.5078	20/D		Feher et al. (1957)
	152							Kawahara (1957) B
	66-7	36			1.5056	20/D		Sinnema, Arens (1957)
	152				1.5021	20/D		Gorin, Dougherty (1956)
					1.4991	29/D		Major, Peterson (1956)
	Retention time: Carson, Wong (1959) Viscosity: Feher et al. (1957)							
1,2-Dithiacyclohexane	30-40	25			[1]1.5981	25/D	30.8-1.5	Schoberl, Grafje (1957)
					1.5750	32/D		
	Heat of oxidation: Sunner, Wadso (1958)							
3,4-Dithia-1,5-hexadiene	[2]180-3						20	Park (1957)
C=C-S-S-C=C								
1,2-Dithia-4-cyclohexene	60	14			1.574	25/D		Schoberl, Grafje (1958)
								
1,2-Dithiacycloheptane	82	14			1.570	25/D		Schoberl, Grafje (1958)
	41	2						
	82	14			1.5720	25/D		Schoberl, Grafje (1957)
4,5-Dithiaoctane	186-8							Kametani et al. (1959)
	82	23						Yonemoto (1959) A
							[3]-85.49	Hubbard et al. (1958) A
$C_3-S-S-C_3$	192.5							Kawahara (1957) B
	91-2	30	0.9597	20/4	1.4970	20/D		Obolentsev et al. (1957)
	69-70	10			1.4940	20/D		Gorin, Dougherty (1956)
	Retention time: Carson, Wong (1959) Dipole moment: Vasil'eva, Gor'yanova (1959) Vapor pressure, heat capacity: Hubbard et al. (1958) A Heat of oxidation: Sunner, Wadso (1958)							
2-Methyl-3,4-dithiaheptane								
$C-\underset{C}{C}-S-S-C_3$	Retention time: Carson, Wong (1959)							

1/ Supercooled liquid.
2/ Decomposition.
3/ Triple point.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	References
2,5-Dimethyl-3,4-dithiahexane	173-5							Kametani et al. (1959)
	77-80	30			1.4883	25/D		Field, Lawson (1958)
	70-74	21	0.9435	20/4	1.4910	20/D		Obolentsev et al. (1957)
C-C(C)-S-S-C(C)-C	Retention time: Carson, Wong (1959)							
4,5-Dithia-1-octene								
C=C-C-S-S-C_3	Retention time: Carson, Wong (1959)							
1,2-Dithiacyclooctane	65.5	2			1.5698	25/D		Schoberl, Grafje (1958)
	65.5	2			1.5698	25/D		Schoberl, Grafje (1957)
S-S-C_6								
4,5-Dithia-1,7-octadiene								
C=C-C-S-S-C-C=C	Retention time: Carson, Wong (1959) Dipole moment: Vasil'eva, Gur'yanova (1959)							
1,2-Dithiacyclononane	87-90	2			1.5642	25/D		Schoberl, Grafje (1958)
	86-89	2			1.5642	25/D		Schoberl, Grafje (1957)
S-S-C_7								
5,6-Dithiadecane	107-9	13						Kametani et al. (1959)
	115	17						Yonemoto (1959) B
							-105	Obolentsev et al. (1958) B
C_4-S-S-C_4	105-8	2			1.4907	25/D		Decker, Post (1957)
	121-4	26						
	104.0-5.0	2.5	.9394	20/4	1.4915	20/D		Obolentsev et al. (1957)
	44-5	0.01			1.4942	20/D		Bernard (1956)
	100.5-1.5	10			1.4891	20/D		Gorin, Dougherty (1956)
	Retention time: Carson, Wong (1959) Dipole moment: Vasil'eva, Gur'yanova (1959) Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
2,7-Dimethyl-4,5-dithiaoctane	98-101							Kametani et al. (1959)
	47	0.5						Walling, Rabinowitz (1959) B
	108.5-9.0	13	.9272	20/4	1.4842	20/D		Obolentsev et al. (1957)
C-C(C)-C-S_2-C(C)-C-C	Retention time: Carson, Wong (1959) Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
2,9-Dimethyl-4,5-dithiadecane	133.0-4.0	8	.9187	20/4	1.4857	20/D		Obolentsev et al. (1957)
C-C(C)-C-S-S-C-C-C-C(C)-C								
3,6-Dimethyl-4,5-dithiaoctane	93	12			1.4938	20/D		Asinger et al. (1959)
	91	10			1.4927	20/D		Costanza et al. (1955)
C_2-C(C)-S_2-C(C)-C_2								
2,2,5,5-Tetramethyl-3,4-dithiahexane	193-5							Kametani et al. (1959)
	85-94	20			1.4872-.4918	25/D		Field, Lawson (1958)
	75.5-6	10			1.4898	20.5/D		Costanza et al. (1955)
C(C)(C)-C(C)-S_2-C(C)(C)-C	Retention time: Carson, Wong (1959)							
1,2-Dithiacyclodecane	107-10	2			1.5461	25/D	15-18	Schoberl, Grafje (1958)
	107-10	2			1.5461	25/D	15-18	Schoberl, Grafje (1957)
S-S-C_8								
2,3-Dithiadecalin								
 cis							41.5	Luttringhaus, Brechlin (1959)
trans							56.5-57	Luttringhaus, Brechlin (1959)

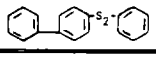
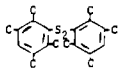
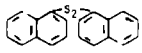
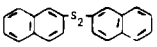
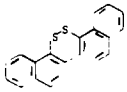
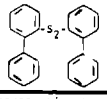
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,3-Dithiabutylbenzene 	66	0.2			1.5871	20/D		Bohme, Van Ham (1958)
2,3-Dithiapentylbenzene 	75	0.1			1.5820	25/D		Stirling (1957)
6,7-Dithiadodecane	112-15	3.5						Kametani et al. (1959)
	82-9	0.7-1.1			1.4858-72	25/D		Field, Lawson (1958)
	120-24	12-13	0.9620	15/4	1.5003	15/D		Tinyakova et al. (1958) A
C_5-S_2-C_5	90	2			1.5056	15/D		
	68-75	1	.9381	15/4	1.5038	15/D		Tinyakova et al. (1958) B
	124-6.5	10			1.4872	25/D		Decker, Post (1957)
	105-8	2						
	68-75	1	.9381	15/4				Tinyakova et al. (1956)
	120-5	12-13	.9310	15/4	1.5001	15/D		
	Heat of oxidation: Sumner, Wadso (1958)							
2,9-Dimethyl-5,6-dithiadecane	111-12	7						Kametani et al. (1959)
	86-9	1.5			1.4810	25/D		Decker, Post (1957)
	124-6.5	10						
C-C-C_2-S_2-C_2-C-C (C, C)	Retention time: Carson, Wong (1959) Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
3,6-Diethyl-4,5-dithiaoctane	75	0.5			1.4933	20/D		Asinger et al. (1959)
C_2-C-S_2-C-C_2 (C_2, C_2)								
1,2-Dithiacyclododecane	1/ 55-60	0.1			1.5405	25/D	40-2	Schoberl, Grafje (1958)
	55-60	0.1			1.5405	25/D	40-2	Schoberl, Grafje (1957)
S - S [C_{10}]								
7,8-Dithiatetradecane	181-2	21			1.4870	20/D		Davey, Edwards (1957-8)
C_6-S_2-C_6								
Dicyclohexyldithiaethane	153-6	5						Kametani et al. (1959)
	125-30	1			1.5565	18.5/D		Tinyakova et al. (1958) B
								
Diphenyldithiaethane							60	Groebel (1960)
							61-2	Overberger, Rosenthal (1960)
							59-60	Smith et al. (1960)
							60-1	Cheezeman (1959) B
							59.5-60.8	Eliel, Haber (1959) B
							58	Kametani et al. (1959)
							57-9	Kober (1959)
							61	Lutringhaus et al. (1959)
	140-60	1.5					60-1	Pandya et al. (1959) B
							60	Yonemoto (1959) A
	166-70	0.4					58-9	Asinger et al. (1958)
							59-61	Field, Lawson (1958)
							59-60	Jualen, Enkvist (1958) B
							60	Scardiglia, Roberts (1958)
	125-37	0.25						Weinstein, Pierson (1958)
							61	Zbirovski, Ettel (1958)
							61	Brooks et al. (1957)
							55-60	Bunnett et al. (1957)
							58	Kawahara (1957) A
							61	Kawahara (1957) B
							60-1	Obolentsev et al. (1957)
							59.6	Philbin et. al. (1957)
							57-8.5	Sinnema, Arens (1957)
							61-2	Wang, Cohen (1957)
							62	Briscoe et al. (1956)
							60-1	Parham, Stright (1956)
							59-60	Szmant, Lapinski (1956)
	190-2	12					59-61	Truce et al. (1956) B
							61	Wagner et al. (1956)
							60-1	Lukashevich, Voroshilev (1955)
							61	Nesbit, Sykes (1954)
	Oxidation potential: Luk'yanitsa, Gal'perp (1956)							

1/ Sublimes.

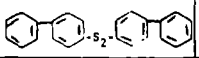
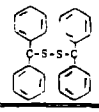
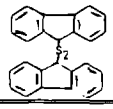
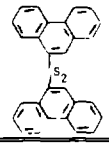
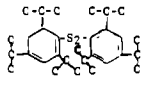
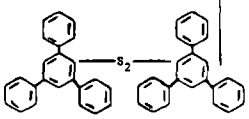
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
9,10-Dithiaphenanthrene 							113-14	Armarego, Turner (1956)
1,2-Dithiacyclopentadecane S - S $[C_{13}]$							57-60 57-60	Schoberl, Grafje (1958) Schaberl, Grafje (1957)
8,9-Dithiahexadecane C_7-S_2-C_7	159-61	10			1.4863	20/D		Davey, Edwards (1957-58)
Di(4-methylcyclohexyl)dithiaethane 	155.0-5.5 155.0-5.5	8 8	0.9143 .9143	20/4 20/4	1.5020 1.5020	20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1956)
1,4-Diphenyl-2,3-dithiabutane 	1/ 142-8	0.05-0.1					68-70 70-1 70-2 72 71.5 70-1 71-2 70 70.5 69 71 70-1 71-2 69-70 74-5	Adams, Ferretti (1959) A Groebel (1960) Kametani et al. (1959) Yonemoto (1959) B Bellido (1958) Field, Lawson (1958) Nicolenko et al. (1958) Brooks et al. (1957) Feher et al. (1957) Kawahara (1957) B Matsumoto (1957) Obolentsev et al. (1957) Wang, Cohen (1957) Sament, Lapinski (1956) Costanza et al. (1955)
	Dipole moment: Vasil'eva, Gur'yanova (1959) Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
Di(2-methylphenyl)dithiaethane 							34-5 37.5-8.0	Groebel (1960) Obolentsev et al. (1957)
Di(4-methylphenyl)dithiaethane 	91-93	5.5					65-6 44-6 44.5-5 44 46 44-6 44-5 44.5-5.5 45-6	Groebel (1960) Wada (1959) Stacey et al. (1958) Kawahara (1957) A Kawahara (1957) B Truce, Boudakin (1956) Truce et al. (1956) B Lukashevich, Voroshilev (1955) Rheinboldt, Giesbrecht (1955)
2,7-Dimethyl-9,10-dithiaphenanthrene 							114-15	Armarego, Turner (1956)
3,6-Dimethyl-9,10-dithiaphenanthrene 							88-9	Armarego, Turner (1956)

1/ Decomposition

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
9,10-Dithiaoctadecane	199-200	10			1.4820	20/D		Davey, Edwards (1957-58)
C_8-S_2-C_8	Dipole moment: Vasil'eva, Gur'yanova (1959)							
5,8-Dipropyl-6,7-dithiadodecane	197-8 197-8 197-8	7 7 7	0.8982 .8982 .8982	20/4 20/4 20/4	1.4818 1.4818 1.4818	 20/D 20/D		Obolentsev et al. (1958) A Obolentsev et al. (1957) Obolentsev et al. (1956)
1,6-Diphenyl-3,4-dithiahexane	198-200 188-92	5.5 1.5						Kamatani et al. (1959) Brooks et al. (1957)
Di(4-ethylphenyl)-dithiaethane	157-60	0.2			1.6175	25.8/D	23.4-4.3	Overberger, Labovitz (1956)
Di(2,3-dimethylphenyl)-dithiaethane							99.0-9.5	Barthus et al. (1957)
Di(2,5-dimethylphenyl)-dithiaethane 							46.5-8	Barthus et al. (1957)
Di(2,6-dimethylphenyl)-dithiaethane							103-5.5 102.5-4 103-4	Wada (1959) Barthus et al. (1957) Al-Kasimi et al. (1955)
Di(3,4-dimethylphenyl)-dithiaethane							50-1	Barthus et al. (1957)
2,4,5,7-Tetramethyl-9,10-dithiaphenanthrene							35-6	Armarego, Turner (1957)
10,11-Dithiaeicosane C_9-S-S-C_9	210-11	6	.8945	20/4	1.4829	20/D		Obolentsev et al. (1957)
Di(2,4,6-trimethyl-phenyl)dithiaethane							124.5-5 123-4 123-4 123-4 125	Adams, Ferretti (1959) Kawahara (1957) A Kawahara (1957) B Wang, Cohen (1957) Costanza et al. (1955)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Phenyl(4-biphenylyl)-dithiaethane 							1/ 89	Leandri, Tundo (1955)
11,12-Dithiadocosane C_{10}-S_2-C_{10}	180-2 206-8	4 2	0.8907	20/4	1.4830 1.4820	20/D 20/D	-27	Davey, Edwards (1957-58) Obolentsev et al. (1957)
Di(2,3,5,6-tetramethyl-phenyl)dithiaethane 							99-100	Illuminati (1958)
Di(1-naphthyl)dithia-ethane 	165	3					86-7 89.7-90.6 88-9	Hardy et al. (1959) Weinstein, Pierson (1958) Kawahara (1957) B
Di(2-naphthyl)dithia-ethane 							138-9 143-4 141.8-2.6 139 139 137-8 138.5-9.5 140-1	Hardy et al. (1959) Douglass, Farah (1958) Weinstein, Pierson (1958) Armarego, Turner (1957) Brooks et al. (1957) Kawahara (1957) B Banfield et al. (1956) A Lukashevich, Voroshilov (1955)
Di(1-azulyl)dithiaethane 							116-18 116-18	Anderson, McDonald (1959) McDonald (1957)
3,4-Dithiadi-benzo[c,g]phenanthrene  (±) (+) (-)							213-14 262-3 262-3	Armarego, Turner (1957) Armarego, Turner (1957) Armarego, Turner (1957)
	Optical rotation: Armarego, Turner (1957)							
13,14-Dithiapicene 							195.5-6.0	Armarego (1960)
13,14-Dithiahexacosane C_{12}-S_2-C_{12}							33.5-4.5	Groebel (1960)
Di(2-biphenylyl)-dithiaethane 							116-17 115.5-16	Bottino (1957) Campaigne, Osborne (1957)

1/ Disproportionates.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Di(4-biphenylyl)-dithiaethane 	Dipole moment: Vasil'eva, Gur'yanova (1959)							
1,1,4,4-Tetramethyl-2,3-dithiabutane 							149-50 152 152 151 150-1 152	Rahman, Singh (1959) Moreau, Biju-Duval (1958) Brederek et al. (1957) Yamasaki (1957) Dannenberg, Rahman (1956) Tsurugi (1955)
Di(9-fluorenyl)dithia-ethane 							170-1	Newman, Lutz (1956)
15,16-Dithiatriacontane C_{14}-S_2-C_{14}	Dipole moment: Vasil'eva, Gur'yanova (1959)							
Di(9-phenanthryl)-dithiaethane 							136	Wilputte, Martin (1956)
Di(2,4,6-triisopropyl-phenyl)dithiaethane 							79.0-9.5	Costanza et al. (1955)
19,20-Dithiaocta-triacontane C_{18}-S_2-C_{18}	Dipole moment: Vasil'eva, Gur'yanova (1959)							
Di(2,4,6-triphenyl-phenyl)dithiaethane 							247-8	Dimroth, Oosterloo (1958)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
Thiophene	84						-38	Ferroni, Gabrielli (1959)
								Karchmer (1959)
							-38.6	Timmermans, Kasanin (1959)
	84.10	760						Desty, Whyman (1957)
	84.1		1.05825	25/4	1.5264	25/D		Felloni (1957)
			1.0578	25/4				Felloni, Tantillo (1957)
	84							Freymann et al. (1956)
	84		1.064	20/4	1.5253	20/D		Huckel, Nabih (1956)
	83.2	744			1.52766	20/D		Kobe et al. (1956)
					1.52038	25/D		
					1.52218	30/D		
	83.5-4.5							Levitt (1956)
	Dipole moment: LaFever et al. (1959); Felloni (1957) Retention volume: Karchmer (1959); Desty, Whyman (1957) Surface tension: Ferroni, Gabrielli (1959) Elution time: Amberg (1958) Dielectric constant: Felloni, Tantillo (1957); Freymann et al. (1956); Holland, Smyth (1955); Philippe, Piette (1955) Critical properties: Kobe et al. (1956) Oxidation potential: Luk'yanitsa, Gal'pern (1956) Heat of vaporization, vapor pressure: Milazzo (1956) A Vapor pressure: Milazzo (1956) B Heat of adsorption: Maxted, Josephs (1956) Heat of combustion: Hubbard et al. (1955); Sunner (1955) A							
2-Methylthiophene	112	760	1.019	20/4	1.5205	20/D		Levi, Nicholls (1958)
	110.5	750	1.0200	20/4	1.5240	20/D	1/ -63.36	Yur'ev, MaKarov (1958)
								Pennington et al. (1956) A
	Elution time: Amberg (1958) Heats of fusion, combustion, heat capacity: Pennington et al. (1956) A Oxidation potential: Luk'yanitsa, Gal'pern (1956)							
3-Methylthiophene	115							Karchmer (1959)
	115.44	760						Desty, Whyman (1957)
								Campbell (1956)
			1.0526	-10/4				
			1.0480	- 5/4				
			1.0426	0/4				
			1.0371	5/4				
			1.0320	10/4				
			1.0268	15/4				
			1.0216	20/4				
			1.0164	25/4				
			1.0111	30/4				
			1.0058	35/4				
			1.0004	40/4				
			0.9955	45/4				
			.9895	50/4				
	Retention volume: Karchmer (1959); Desty, Whyman (1957) Elution time Amberg (1958) Coefficient of expansion, ulcrasonic velocity: Campbell (1956)							
2-Ethylchiophene	135-5.5	741.5	.990	20/4	1.5130	20/D		Kaladin et al. (1960)
	133-5							Greenfield et al. (1958)
	133	760	.992	20/4	1.5139	20/D		Levi, Nicholls (1958)
	134-8	760			1.5118	20/D		Profft (1958)
	Elution time: Amberg (1958)							
3-Ethylchiophene	Elution time: Amberg (1958)							
2,3-Dimethylthiophene	142-3				1.5250	22.5/D		Lamy et al. (1958)
	Elution time: Amberg (1958)							
2,4-Dimethylthiophene	90-138				1.5057	27.3/D		Parham et al. (1959) A
	Elution time: Amberg (1958)							
2,5-Dimethylthiophene	134-5	759	.9775	20/4	1.5045	20/D		Yur'ev, Makarov (1958)
	132-8							Peters, Walker (1957)
	136.5	754	.9860	20/4	1.5134	20/D		Gol'dfarb, Kondakova (1956)
	136-6.5							Jean, Nord (1955)
	Elution time: Amberg (1958)							

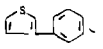
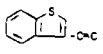
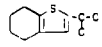
1/ Triple point

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3,4-Dimethylthiophene	70-1	55			1.5206	20.5/D		Marvel et al. (1956)
	Elution time: Amberg (1958)							
2-Ethenylthiophene	65-7 63.5 65.5-6.5 77-8 66.5 50.5-51	50 50 48 70 48 28	1.043 1.0410	20/4 20/4	1.5701 1.5679 1.5722 1.5722 1.5731	25/D 20/D 20/D 20/D 25/D		Emerson, Patrick (1958) Levi, Nicholls (1958) Andreeva, Koton (1957) Davies, Porter (1957) B Andreeva, Koton (1956) Van Zyl et al. (1956)
2-Propylthiophene	158-62 151	760 760			1.5042	20/D		Profft (1958) Novak et al. (1957)
2-Isopropylthiophene	48-9	14			1.5035	20/D		Bedell (1959)
2-Methyl-5-ethylthiophene	Elution time: Amberg (1958)							
3-Methyl-2-ethylthiophene	158-61				1.5225	22.5/D		Lamy et al. (1958)
4-Methyl-2-ethylthiophene	160-1				1.5218	22.5/D		Lamy et al. (1958)
2,3,5-Trimethylthiophene	Elution time: Amberg (1958)							
2-(1-Propenyl)thiophene	84-5 46-7	34 7.0			1.5730 1.5705	20/D 25/D		Schulte, Jantos (1959) Van Zyl et al. (1956)
2-Isopropenylthiophene	55 68	10 18	1.025	20/20	1.5565 1.562	20/D 20/D		Bedell (1959) Hermans et al. (1959)
2-(1-Propynyl)thiophene	50-1	5			1.5890	20.5/D		Schulte, Jantos (1959)
2-Butylthiophene	182-90 181-2 182 179.5 80.5	770 760 753 19.5	0.953	25.8/4	1.5015 1.5009 1.5070 1.4992	18.5/D 20/D 24/D 24.5/D		Grey et al. (1960) Profft (1958) Buu-Hoi et al. (1955) A Cagniant, Cagniant (1955) B
3-Butylthiophene	176-8	739			1.5114	20/D		Wynberg et al. (1957)
2-Isobutylthiophene	173-6 165-9	760	.9470	20/4	1.4982 1.4980	20/D 20/D		Gol'dfarb et al. (1959) Profft (1958)
2-t-Butylthiophene	161.8-2.8 165	748	.949	24.5/4	1.4982 1.4971	20/D 23/D		Gol'dfarb et al. (1958) Cagniant, Cagniant (1956)

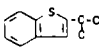
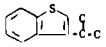
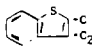
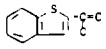
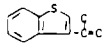
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2,4-Dimethyl-5-ethyl-thiophene 	179-80				1.5158	22.5/D		Lamy et al. (1958)
Tetramethylthiophene 	75-8	13-14			1.5205	20/D		Gol'dfarb, Kondakova (1956)
2-(1-Butenyl)thiophene 	39-40	0.4			1.5558	25/D		Van Zyl et al. (1956)
2-(2-Methyl-1-propenyl)-thiophene 	75	12			1.5699	20/D		Farkas, Novak (1960)
1-Thiaindene 	85-100 64-75	1.2 4-5					31.40 31-2 31.309±0.05 1/ 31.314±0.07 32 32	Pandya et al. (1959) A Pandya, Tilak (1959) Mastrangelo, Dornte (1957) Campaigne, Cline (1956) Corson et al. (1956) Huckel, Nabih (1956) Padhye, Patel (1956)
	Solidus-Liquidus system with naphthalene: Mastrangelo, Dornte (1957)							
2-Pentylthiophene 	202-5 82 204 201-1.5	769 12 760	 0.947	 18.7/4	 1.4982 1.5055 1.4995	 20/D 20/D 17.8/D		Grey et al. (1960) Profft (1958) Buu-Hoi et al. (1955) A Cagniant, Cagniant (1955) B
2-(3-Methylbutyl)-thiophene 	198-200 196-8 92	760 25			1.4958 1.5040	20/D 24/D		Profft (1958) Buu-Hoi et al. (1955) A Sy et al. (1954)
2-Methyl-4-t-butyl-thiophene 	195				1.5025	24/D		Sy et al. (1955)
2-(1-Pentenyl)thiophene 	77-7.5	8.0			1.5481	25/D		Van Zyl et al. (1956)
1,4,5,6,7,8-Hexahydro-1-thiaazulene 	99	12.5	1.065	16.2/4	1.5540	17.5/D		Cagniant, Cagniant (1955) A
2-Methyl-4,5,6,7-Tetra-hydro-1-thiaindene 	104-5	13			1.5452	18/D		Buu-Hoi, Khenissi (1958)
4-Methyl-6,7-dihydro-1-thiaindene 	130	14						Taylor (1959)
2-Methyl-1-thiaindene 	92-3	5					51-2 51-2	Karaulova et al. (1958) Muth, Kiss (1956)

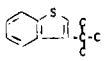
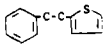
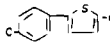
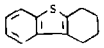
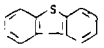
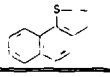
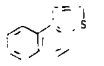
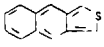
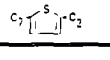
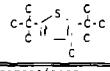
1/ Zero impurity.

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-Methyl-1-thiaindene 	127-9 50-75	25 0.3			1.6236	20/D		Karaulova et al. (1959) Damm, Kokoruda (1958)
6-Methyl-1-thiaindene 							37-8	Hansch et al. (1956)
2-Hexylthiophene 	114	14			1.5026	24/D		Buu-Hoï et al. (1955) A
2-(1-Hexenyl)thiophene 	109-10	7			1.5396	25/D		Van Zyl et al. (1956)
2-(2-Ethyl-1-butenyl)-thiophene 	90-1	8.0			1.5526	25/D		Van Zyl et al. (1956)
5-Methyl-1,4,5,6,7,8-hexa-hydro-1-thiazulene 	110	12	1.039	19.8/4	1.5458	20.2/D		Cagniant, Cagniant (1956)
3,6-Dimethyl-4,5,6,7-tetrahydro-1-thiaindene 	236	760			1.6801	18/D		Treibs (1960)
2-Methyl-4-(1-cyclo-pentenyl)thiophene 	76-7	0.5	1.0550	20/4	1.5765	20/D		Pereev, Kuren'gina (1955)
2-Ethyl-1-thiaindene 	95-6	1.5			1.6063	20/D		Karaulova et al. (1958)
2,3-Dimethyl-1-thiaindene 	122-4	13	1.1054	20/4	1.6170	20/D		Van Schooten et al. (1958)
3,5-Dimethyl-1-thiaindene 	53-70 125-6	0.3 14			1.6010	15/D		Damm, Kokoruda (1958) Banfield et al. (1956) A
3,6-Dimethyl-1-thiaindene 	110 133-4	5 18			1.6158	18/D	40.5	Weitkamp (1959) Banfield et al. (1956) A
3,7-Dimethyl-1-thiaindene 	122-4	12			1.6090	15/D	30-1	Banfield et al. (1956) A

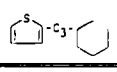
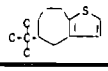
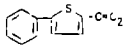
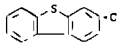
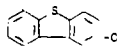
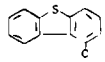
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Phenylthiophene 							42-4 32-3 35-6	Wynberg, Kantjes (1959) Sorensen, Sorensen (1958) Campaigne, Cline (1956)
3-Phenylthiophene 	140	13					91.5-2.8 92-93.4 91	Wynberg et al. (1957) Teste, Lozac'h (1955)
3-Ethenyl-1-thiaindene 	133-4 138-40	25 18						Davies et al. (1957) Davies, Porter (1957) A
2-Heptylthiophene 	125 127 117.5	20 18 15	0.933	21/4	1.4998 1.4962	24/D 18.8/D		Grey et al. (1960) Buu-Hoi et al. (1955) A Cagniant, Cagniant (1955) B
2-Methyl-5-hexylthiophene 	116	14			1.5010	24/D		Buu-Hoi et al. (1955) A
2-Ethyl-5-pentylthiophene 	113.5	12.9	.925	25.2/4	1.4951	22.8/D		Cagniant, Cagniant (1955) B
2-(Cyclohexylmethyl)-thiophene 	129	18			1.5350	24/D		Buu-Hoi et al. (1955) A
2-Ethyl-1,4,5,6,7,8-hexahydro-1-thiazulene 	121	10	1.021	21.2/4	1.5390	21.2/D		Cagniant, Cagniant (1955) A
5-Ethyl-1,4,5,6,7,8-hexahydro-1-thiazulene 	190	17						Cagniant, Cagniant (1956)
2-Isopropyl-4,5,6,7-tetrahydro-1-thiaindene 	55	0.5	0.9926	25/4	1.5268	20/D		Bedell (1959)
1,4,4-Trimethyl-4,5,6,7-tetrahydro-2-thiaindene 	66-70	0.3			1/ 1.5393	20/D	21-22	Birch et al. (1959)
3-Methyl-5-(1-cyclohexenyl)thiophene 	105-6	3	1.0580	20/4	1.5790	20/D		Pereev, Kuren'gina (1955)

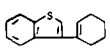
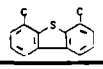
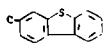
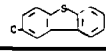
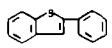
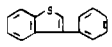
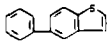
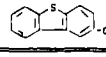
1/ Supercooled

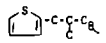
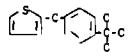
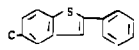
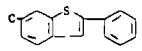
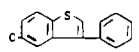
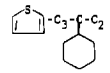
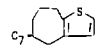
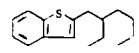
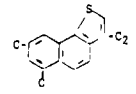
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Isopropyl-1-thiaindene 	71.5 63-3.5	0.5 0.1	1.0526	25/4	1.5895 1.5896	20/D 20/D		Bedell (1959)
3-Isopropyl-1-thiaindene 	97.5 69-70	0.8 0.1	1.0662 1.0663	25/4 25/4	1.5961 1.5958	20/D 20/D		Bedell (1959)
2-Methyl-3-ethyl-1-thiaindene 	107-12	0.8						Asinger et al. (1958)
2-Isopropenyl-1-thiaindene 							52-6	Bedell (1959)
3-Isopropenyl-1-thiaindene 	91-2	0.1	1.2424	25/4	1.6167	20/D		Bedell (1959)
2-Octylthiophene 	123-5 135 139 130.5-1.5 141	10 23 15 11.1 16	0.922	19.8/4	1.4866 1.4970 1.4906	20/D 23/D 17.8/D		Grey et al. (1960) Wynberg, Logothetis (1956) Buu-Hoi et al. (1955) A Cagniant, Cagniant (1955) B
2-Methyl-5-heptyl-thiophene 	129	15			1.4982	24/D		Buu-Hoi et al. (1955) A
2-(2-Ethyl-1-hexenyl)-thiophene 	112-14	8.0			1.5380	25/D		Van Zyl et al. (1956)
3-Cyclopentyl-1-(2-thienyl)propane 	158	16			1.5312	20/D		Buu-Hoi et al. (1955) B
2-Methyl-5-(Cyclohexyl-methyl)thiophene 	141	22			1.5330	20/D		Buu-Hoi et al. (1955) A
5-Propyl-1,4,5,6,7,8-hexahydro-1-thiazulene 	139	14	1.005	17/4	1.5342	17.7/D		Cagniant, Cagniant (1956)
1,2,3,4,5,6,7,8-Octahydro-9-thiafluorene	119-20 119-20	1 1					31-2 31-2	Obolentsev et al. (1958) A Obolentsev et al. (1956)

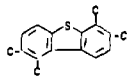
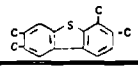
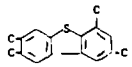
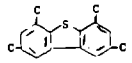
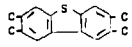
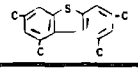
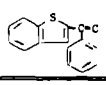
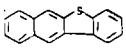
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-t-Butyl-1-thiaindene 	149	20	1.0578	25/4	1.5871	25/D		Corson et al. (1956)
2-Phenyl-1-(2-thienyl)-ethane 	152	15			1.5854	24/D		Buu-Hoi et al. (1955) A
2-Methyl-5-(4-methylphenyl)thiophene 							44.5-45	Babstock, Stratton (1955)
1,2,3,4-Tetrahydro-9-thiafluorene 	100-20	0.04						Winternitz et al. (1956)
9-Thiafluorene 	160	4					99 98-9 98-9 92-6 97-7.5 99 99-100 100 99 98-9 96 99-100 97	Gogte et al. (1960) Badger et al. (1959) Obolentsev et al. (1958) A Wittenberg et al. (1958) Wittig, Benz (1958) Andreeva, Koton (1957) Davies, Porter (1957) A Armarego, Turner (1956) Huckel, Mahih (1956) Obolentsev et al. (1956) Wilputte, Martin (1956) Florin, Mears (1955) Gilman, Swayampati (1955) Kruber (1952)
	1/332							
	Dielectric constant: Price (1958)							
1-Thiabenz [e]-indene 	140-2	10					27-8	Dessi et al. (1957) Banfield et al. (1956) B
3-Thiabenz [e]indene 							110-11 111-12 113-14	Davies, Porter (1957) B Banfield et al. (1956) B Campaigne, Cline (1956)
2-Thiabenz [f]indene 							186-9 189-90	Carruthers, Crowder (1957) Wilputte, Martin (1956)
2-Ethyl-5-heptylthiophene 	142	12	0.912	26/4	1.4909	23.8/D		Cagniant, Cagniant (1955) B
3-Methyl-2,5-di-t-butyl-thiophene 	119	13			1.4952	23/D		Sy et al. (1955)

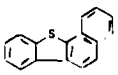
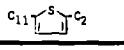
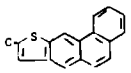
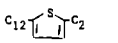
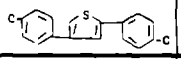
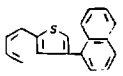
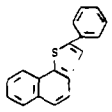
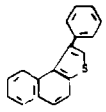
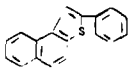
1/ Decomposition

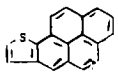
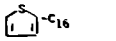
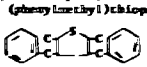
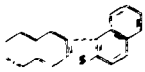
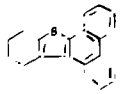
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
3-Cyclohexyl-1-(2-thienyl)propane 	157	13			1.5272	21/D		Buu-Hoi et al. (1955) A
5-t-Butyl-1,4,5,6,7,8-hexahydro-1-thiaazulene 	137	13.5	0.996	20/4	1.5308	19.5/D		Cagniant, Cagniant (1956)
2,3-Diethyl-1,4,5,6,7,8-hexahydro-1-thiaazulene 	146	11.6	1.032	18.8/4	1.5461	16/D		Cagniant, Cagniant (1955) A
2-Propyl-5-phenylthiophene 	60-65	0.001						Sorensen, Sorensen (1958)
2-(1-Propenyl)-5-phenylthiophene 							42-3	Sorensen, Sorensen (1958)
2-Methyl-9-thiafluorene 							78-9	Gilman, Wilder (1957)
3-Methyl-9-thiafluorene 							88-9	Gilman, Wilder (1957)
4-Methyl-9-thiafluorene 							67-8	Gilman, Wilder (1957)
3-Methyl-1-thiabenz-[e]indene 	140-4	0.3					60.5-1.5	Banfield et al. (1956) A
1-Methyl-3-thiabenz-[e]indene 	150-70	0.5					58-60 58.5-9.5	Dann, Kokorudz (1958) Banfield et al. (1956) A

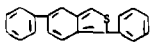
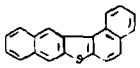
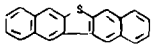
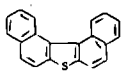
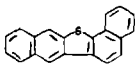
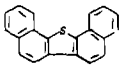
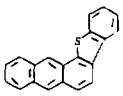
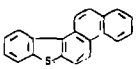
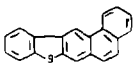
Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
2-Decylthiophene 	162 167 170	16 17 16			1.4900 1.4932	19/D 27/D		Cagniant, Cagniant (1956) Wynberg, Logothetis (1956) Bun-Hoi et al. (1955) A
2-Ethyl-5-octylthiophene 	154	11.5	0.909	24/4	1.4923	17.6/D		Cagniant, Cagniant (1953) B
3,4-Dimethyl-2,5-di-t-butylthiophene 	139	13			1.4832	19/D		By et al. (1955)
3-(1-Cyclohexenyl)-1-thiaindene 	177-81	2						Davies, Porter (1957) A
1,8-Dimethyl-9-thiafluorene 							152-3 154-5	Carruthers (1955) Kruber, Rasithal (1954)
2,7-Dimethyl-9-thiafluorene 	186	10					151-2	Armarego, Turner (1956)
3,6-Dimethyl-9-thiafluorene 							122-3 121-2	Gilman, Wilder (1957) Armarego, Turner (1956)
1-(3-Thienyl)naphthalene 							147	Schmitt et al. (1956)
2-Phenyl-9-thiaindene 	130-75	2					176 175-6 174-5 175-6 174-5	Badger et al. (1960) Rao, Tilak (1959) Dann, Kokorudz (1958) Banfield et al. (1956) A Quint, Scafer (1953)
3-Phenyl-1-thiaindene 	120-35 145-8 148-52 124-7 100-20	0.4 0.8 1.75 0.5 0.1			1.6792	20.5/D	172-3	Rao, Tilak (1959) Dann, Kokorudz (1958) Schuetz, Ciporin (1958)
5-Phenyl-1-thiaindene 	170-210	1.5					100	Pandya et al. (1959) B
3-Ethenyl-9-thiafluorene 2-vinyldibenzothiophene 	167	0.05					42 42	Andreeva, Koton (1957) Andreeva, Koton (1956)

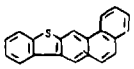
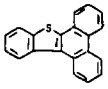
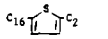
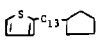
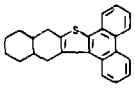
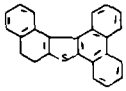
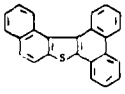
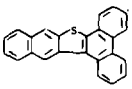
Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
2-Undecylthiophene 	164-5	12	0.908	20/4	1.4880	19/D		Cagniant, Cagniant (1955) B
2-(2-Methyldecyl)-thiophene 	172-4	.23			1.4748	22/D		Sy et al. (1954)
2-Thienyl-1-(4-t-butyl-phenyl)methane 	177	14			1.5635	26/D		Buu-Hoi et al. (1955) A
5-Methyl-2-phenyl-1-thiaindene 	120-50	0.2					156-7 158-9 158-8.5	Rao, Tilak (1959) Dann, Kokorudz (1958) Banfield et al. (1956) A
6-Methyl-2-phenyl-1-thiaindene 							184-4.5	Banfield et al. (1956) A
5-Methyl-3-phenyl-1-thiaindene 	134-7 110-30 155-7	0.5 0.3 0.4			1.6604	20/D		Rao, Tilak (1959) Dann, Kokorudz (1958) Banfield et al. (1956) A
2-Dodecylthiophene 	153-5 184-8	2 18			1.4783	25/D		Miller et al. (1959) Cagniant, Cagniant (1955) B
1-(2-Thienyl)-4-cyclo-hexylhexane 	185-7	15			1.5220	21/D		Buu-Hoi et al. (1955) A
5-Heptyl-1,4,5,6,7,8-hexahydro-1-thiaazulene 	189-90	14	.961	20.2/4	1.5180	20/D		Cagniant, Cagniant (1956)
1,2,3,4,4a,5,11,11a-Octa-hydro-10-thia-benzo[b]fluorene 	185	2						Wilputte, Martin (1956)
6,8-Dimethyl-3-ethyl-1-thiabenz[e]indene 							150-1	Carruthers, Douglas (1959)

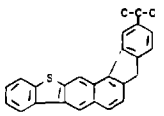
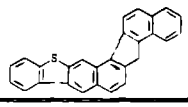
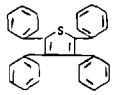
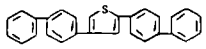
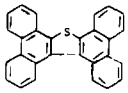
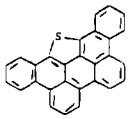
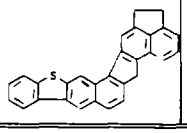
Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
1,2,5,6-Tetramethyl-9-thiafluorene 							127-8	Carruthers, Douglas (1959)
1,2,6,7-Tetramethyl-9-thiafluorene 							186-9 192-4	Carruthers, Douglas (1959)
1,3,6,7-Tetramethyl-9-thiafluorene 							126-8 132-4.5	Carruthers, Douglas (1959)
1,3,6,8-Tetramethyl-9-thiafluorene 							139-41 142-3	Carruthers, Douglas (1959)
2,3,6,7-Tetramethyl-9-thiafluorene 							211-12	Carruthers, Douglas (1959)
2,4,5,7-Tetramethyl-9-thiafluorene 							121-2	Armarego, Turner (1957)
2,3-Diphenylthiophene 							84	Schmitt et al. (1956)
2,4-Diphenylthiophene 	377 377						120-1.5 120-2 124 124 117-18	Campaigne et al. (1959) Szmant, Alfonso (1957) Hanson, Kinnard (1956) Hanson, Kinnard (1953) Schmitt et al. (1956)
2-(1-Phenyl-1-ethenyl)-1-thiaindene 							170-80	Parham, Gadsby (1960)
11-Thiabenzo[a]-fluorene 							160 162	Badger, Christie (1956) A Wilputte, Marrin (1956)

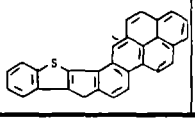
Name and skeleton	Boiling point: °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
11-Thiabenzo(*a*)-fluorene 	429.9	760					186-8 185-6 185 185	Carruthers, Douglas (1959) Davies et al. (1957) Badger, Christie (1956) B Kruber, Grigolait (1954)
2-Ethyl-5-undecylthiophene 	190	11.6	0.901	25/4	1.4905	17.2/D		Cagniant, Cagniant (1955) B
9-Methyl-10-thiacyclopenta[*b*]phenanthrene 							112-14	Carruthers, Crowder (1957)
2-Ethyl-5-dodecylthiophene 	201-2	13.5	.901	19/4	1.4871	18.2/D		Cagniant, Cagniant (1955) B
2,4-Di(4-methylphenyl)-thiophene 							145-5.5	Campaigne et al. (1959)
3-(1-Naphthyl)-1-thiaindene 							90-2	Schuetz, Ciporin (1958)
2-Phenyl-1-thiabenz-[*e*]indene 							56-7	Banfield et al. (1956) A
1-Phenyl-3-thiabenz-[*e*]indene 	200-225	0.7					84-6	Dann, Kokorudz (1958)
2-Phenyl-3-thiabenz[*e*]indene 							106-8	Dann, Kokorudz (1958)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
9-Thiacyclopenta-[*def*]pyrene 							145-6 145-6	Pandya, Tilak (1959) Pandya, Tilak (1958)
5-Decyl-1,4,5,6,7,8-hexahydro-1-thiaazulene 	182	3			1.5193	21/D		Cagniant, Cagniant (1956)
2-Hexadecylthiophene 	147-7.5 147 192 220	0.2 0.2 3 12	0.901	18/4	1.4870	19.2/D		Miller et al. (1959) Wynberg, Logothetis (1956) Cagniant, Cagniant (1955) B
2,5-Dioctylthiophene 	170	0.1						Wynberg, Logothetis (1956)
5-Undecyl-1,4,5,6,7,8-hexahydro-1-thiaazulene 	192-5	3						Cagniant, Cagniant (1956)
2,4-Di(4-ethylphenyl)-thiophene 							109-10	Campaigne et al. (1959)
2,5-Dimethyl-3,4-di-(phenylmethyl)thiophene 	187-91	5					68-9	Gol'dfarb, Kondakova (1956)
8,8a,9,10,11,12,12a,13-Octahydro-7-thiadibenzo[*b*,*g*]fluorene 							114-16	Wilputte, Martin (1956)
7,7a,8,9,10,11,11a,12-octahydro-13-thiadibenzo[*a*,*h*]fluorene 							211	Wilputte, Martin (1956)
9,10,11,12-Tetrahydro-13-thiaindeno[1,2-*l*]-phenanthrene 							162	Wilputte, Martin (1956)

Name and skeleton	Boiling point °C.	mm. Hg	Density d	°C.	Refractive index n	°C./line	Freezing point °C.	Reference
1,5-Diphenyl-2-thia-indene 							118-19	Wittig et al. (1960)
7-Thiadibenzo[b,g]-fluorene 							197	Wilputte, Martin (1956)
12-Thiadibenzo[b,h]-fluorene 							254	Wilputte, Martin (1956)
7-Thiadibenzo[c,g]-fluorene 							208-9	Gogte et al. (1960)
13-Thiadibenzo[a,h]-fluorene 							316-17 317	Armarego (1960) Wilputte, Martin (1956)
13-Thiadibenzo[a,i]-fluorene 							255-6 252-3	Armarego (1960) Wilputte, Martin (1956)
13-Thiaindeno[2,1-a]-anthracene 							226-6.5	Davies, Porter (1959) A
7-Thiaindeno[1,2-a]-phenanthrene 							168.5-9.0	Davies, Porter (1957) C
8-Thiaindeno[2,1-b]-phenanthrene 							141-2	Badger, Christie (1958)

Name and skeleton	Boiling point °C	mm Hg	Density d	°C	Refractive index n	°C/line	Freezing point °C	Reference
17-Thiaindeno[1,2-b]-phenanthrene 							322-3	Badger, Christie (1958)
13-Thiaindeno[1,2-l]-phenanthrene 							142	Wilputte, Martin (1956)
2-Octadecylthiophene 	183 182	0.8 0.6					30-2	Miller et al. (1959) Wynberg, Logothetis (1956)
2-Ethyl-5-hexadecyl-thiophene 	242	14.7	0.905	20.5/4	1.4914	19.2/D		Cagniant, Cagniant (1955) B
13-Cyclopentyl-1(2-thienyl)tridecane 	242-8	20			1.5045	24/D		Bum-Hoi et al. (1955) A
9,9a,10,11,12,13,13a,14-Octahydro-15-thia-benz[5,6]indeno[1,2-l]-phenanthrene 							211	Wilputte, Martin (1956)
10,11-Dihydro-9-thia-bens[6,7]indeno[1,2-l]- 							162	Wilputte, Martin (1956)
9-Thiabenz[6,7]indeno-[1,2-l]phenanthrene 							196	Wilputte, Martin (1956)
15-Thiabenz[5,6]-indeno[1,2-l]phenan-threne 							245	Wilputte, Martin (1956)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
2-Isopropyl-13-thiafluoreno[3,2-c]fluorene 	260	0.5						Saint-Ruf et al. (1960)
13-Thiabenz[a]fluoreno[2,3-g]fluorene 							289	Saint-Ruf et al. (1959)
Tetraphenylthiophene 							183-4 184-5 182	Fortins (1959) Hubel, Braye (1959) Badger et al. (1957)
2,4-Di(biphenylyl)-thiophene 							295-6	Campaigne et al. (1959)
17-Thiatetrabenzo-[a,c,g,l]fluorene 							259-60	Wilputte, Martin (1956)
15-Thiadibenzo[a,g]cyclopenta[c,d,e]perylene 							378-80	Badger et al. (1957)
14-Thiafluoreno-[3',2';6,7]indeno-[1,2-c]acenaphthene 							264	Saint-Ruf et al. (1959)

Name and skeleton	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
13-Thiaindeno[2',1':1,2]indeno[6,7-a]pyrene 							276	Saint-Ruf et al. (1959)

Name and empirical formula	Boiling point °C	Boiling point mm Hg	Density d	Density °C	Refractive index n	Refractive index °C/line	Freezing point °C	Reference
$C_{12}H_{20}S$ "Di-t-butylthiophene"	216-20	758						Cagniant, Cagniant (1956)
$C_{12}H_{12}S$ "Tetrahydrobenzothiophenes"	119-21	0.3						Davies, Porter (1956)
$C_{12}H_{10}S$ "Dihydrobenzothianaphthene"							76	Huckel, Wabih (1956)
$C_{15}H_{14}S$ "Trimethyldibenzothiophene"							84-6	Carruthers, Douglas (1959)
$C_{16}H_{16}S$ "Tetramethyldibenzothiophene"							196	Carruthers, Douglas (1959)
$C_{16}H_{10}S$ "Benzonaphthothiophene"							103	Voightlander, Graf (1959)
$C_{18}H_{14}S$							110.5-11.5	Jacobs, Goodrow (1958)

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