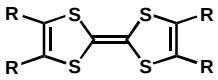

R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
H	119.1-119.3	$CHCl_3$	0.38	0.77	CH_3CN	0.1M TBAHP	1, 28
CH_3	244.5-245	CH_3CN[b)]	0.29	0.65	CH_3CN	0.1M TBAHP	2, 29
CD_3	241-243	CH_3CN[b)]					3
C_2H_5	125	$CHCl_3$	0.23	0.75	CH_3CN	0.1M TBAP	34
C_3H_7		CH_3CN[c)]	-0.062	0.319	CH_3CN	0.1M TEAP[g)]	4
C_5H_{11}	48-49	pentane[b)]					5
n-$C_{17}H_{35}$	93-95	benzene[b)]					35
C_6H_5	262-263	$CHCl_3$[b)]					6
			0.41	0.77	[l)]	0.1M LiCl	42
$C_6H_4OC_4H_9^p$	172	$CHCl_3$					43
$C_6H_4OC_8H_{17}^p$	121	$CHCl_3$					43
$C_6H_4OC_{10}H_{21}^p$	127	$CHCl_3$					43
$C_{10}H_{21}$	58-60						7
CH_2CH_2CN	130-132(dec.)	$CHCl_3$	0.61	0.93	CH_3CN	0.1M TBAHP	33
CH_2OH	220 (dec.)	DMSO	0.39	0.65	DMF	0.1M TBAP	8, 9
CH_2OCH_3	74	$CHCl_3$					10
$CH_2OC_3H_7$	47	$CHCl_3$					10
$CH_2OC_5H_{11}$	35	$CHCl_3$					10
$CH_2OC_6H_{13}$	44	$CHCl_3$					10
$CH_2OC_7H_{15}$	44	$CHCl_3$					10
$CH_2OC_8H_{17}$	48	$CHCl_3$					10
$CH_2OC_{10}H_{21}$	61	$CHCl_3$					10
$CH_2OC_{12}H_{25}$	70	$CHCl_3$					10
$CH_2OC_{14}H_{29}$	73	$CHCl_3$					10
$CH_2OC(O)CH_3$	131	CH_2Cl_2-hexane[b)]					10
$CH_2OC(O)C_6H_{13}$	69	$CHCl_3$					10
$CH_2O_2CH_3$	138-140	C_6H_5CN[c)]	0.65	0.8	C_6H_5CN	[f)]	11
$CH(OC_2H_5)_2$	136.5-137.5	$CHCl_3$	0.62	1.05	DCE	0.1M TBAP	8
COOH	>360	DMH-ether[b)]					40
$COOCH_3$	169-170	toluene	0.8		CH_3CN	0.1M TEAP	12, 31, 32
$CONH_2$	>360	DMF[j)]					40
-C(O)OC(O)-	>360	hexane					40
CHO	280 (dec.)	DMSO	1.04[k)]	1.15[k)]	DMF	0.1M TBAP	8
$CH_2CH_2SCH_3$	110	CH_3CN[b)]	0.22	0.47	CH_3CN	0.1M TEAP[g)]	39
$(CH_2)_3SCOCH_3$	95	$CHCl_3$-ether[e)]	0.22	0.47	CH_3CN	0.1M TEAP[g)]	39
$CH=C(CH_3)_2$	114-115	EtOH	0.33	0.65	CH_3CN	0.1M TBAP	8
$CH=CHCO_2C_2H_5$	250		0.86	1.14	CH_3CN	0.1M TBAP	8
$CH=CHCOCH_3$	>260		0.78	0.95	CH_3CN	0.1M TBAP	8
$CH=CHC_6H_5$	152-154	THF	0.42	0.67	CH_3CN	0.1M TBAP	8
$C\equiv CSi(CH_3)_3$		$CHCl_3$	0.63	1.13	CH_2Cl_2	0.1M TBAP[f)]	13

$C\equiv CH$							13
$C\equiv CCH_3$							13
$C\equiv CSi(CH_3)_2{}^tBu$		$CHCl_3$					13
	287-289	THF[b]					44
	233-235	CH_2Cl_2[c]	0.54	0.96	CH_2Cl_2	0.1M TBAT[h]	15
	242-243	CH_2Cl_2	0.48	0.87	CH_2Cl_2	0.1M TBAT[h]	16
$-(CH_2)_2-$		pentane[b]					36
$-(CH_2)_3-$	244	CH_3CN-TCB[b]	0.33	0.66	CH_3CN	0.1M TEAP	17, 19
			0.27	0.60	CH_3CN	0.1M TEAP	18
$-(CH_2)_4-$	247.6-248.2	PhCl	0.40	0.80	CH_3CN	0.1M TEAT[f]	19, 20
$-(CH_2)_5-$	199-206	benzene-MeOH[b]	0.21	0.64	[i]	0.1M LiCl	37
$-CH_2S(CH_2)_2SCH_2-$	250 (dec.)						38
$-CH_2OCH_2-$		DMF	0.35	0.66	DMF	0.1M TBAHP	21
$-CH_2SCH_2-$	222-230	DMSO	0.55	0.72	CH_3CN	0.1M TBAP	22
$-CH_2SO_2CH_2-$	190 (dec.)	CH_2Cl_2[d]	0.65	0.80	DMF	0.1M TBAHP	22, 23
	220 (dec.)	$CHCl_3$-CS_2	0.54	0.99	CH_2Cl_2	0.1M TBAHP	24
CN	265-266	CH_2Cl_2[e]					26
CF_3	89.5-90.5	$CHCl_3$	1.23	1.45	CH_2Cl_2	0.1M TBAHP	27, 31, 32
Cl	221-223	CH_2Cl_2[c]	0.83	1.12	CH_2Cl_2	0.1M TBAHP	14
Br	227-228	CH_2Cl_2[c]	0.79	1.13	CH_2Cl_2	0.1M TBAHP	14
I	175 (dec.)	DMSO	0.71	1.03	PhCN	0.1M TBAHP[f]	41
$Si(CH_3)_3$	223-224	hexane[b]					45
$P(C_6H_5)_2$	251-252	toluene[b]	0.33	0.73	CH_2Cl_2	0.1M TBAHP	46

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization. [c]Solvent for CV. [d]Solvent for EPR. [e]Solvent for chromatography. [f]V vs. Ag / AgCl. [g]V vs. $AgNO_3$ (0.01M). [h]V vs. Ag wire. [i]4:1, v/v. [j]Solvent for UV. [k]Irrevesible. [l]MeOH-benzene (4:1, v/v).

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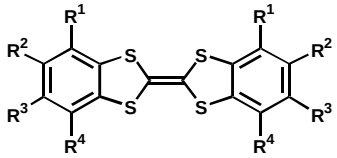
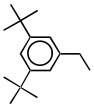
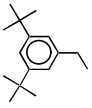


R^1	R^2	R^3	R^4	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
H	H	H	H	242.5-243	CCl_4	0.72	1.06	CH_3CN	0.1M TEAT	1
F	F	F	F	175-177	$CHCl_3$	1.14	1.45	CH_2Cl_2	0.1M TBAHP	2
CH_3	H	H	H (E, Z)	248-249	pyridine[b)]					6
H	CH_3	H	H (E, Z)	262	CCl_4	0.68	1.02	CH_3CN	0.1M TEAB	1
H	Cl	H	H (E, Z)	315-318	pyridine[b)]					6
H	I	H	H (E, Z)	303-304	pyridine[b)]					6
H	NO_2	H	H (E, Z)	360-366	pyridine[b)]					6

H	CH_3	CH_3	H	>360	DMF[b]					7
H	CH_3S	CH_3S	H	281.5-282.5	xylene[b]	0.43	1.04	CH_2Cl_2	0.1M TBAHP	3
H	-SC(O)S-		H	>320	TCB[b]					3
CH_3S	-SC(O)S-		CH_3S	>360	$CHCl_3$					5
	-SC(O)S-			287-293	$CHCl_3$					8
C_2H_5S	-SC(O)S-		C_2H_5S	>360	$CHCl_3$[c]					8
$C_5H_{11}S$	-SC(O)S-		$C_5H_{11}S$	319-320						8
$^{i}C_5H_{11}S$	-SC(O)S-		$^{i}C_5H_{11}S$	343-345	$CHCl_3$	0.90	1.20	DCE	0.1M TBAP	5
$C_{12}H_{25}S$	-SC(O)S-		$C_{12}H_{25}S$	225-227		0.86	1.17	CH_2Cl_2	0.1M TBAP	8
$C_5H_{11}S$	-S-S-S-		$C_5H_{11}S$	266-268	DCE[c]					9
H	-SC(S)S-		H							10
$C_6H_{13}O$	-SC(S)S-		$C_6H_{13}O$	>245	$CHCl_3$-MeOH	0.66	1.03	TCE	0.1M TBAHP	11
$^{i}C_5H_{11}S$	-SC(S)S-		$^{i}C_5H_{11}S$	>360	o-DCB[c]	0.88	1.14	o-DCB	0.1M TBAP	8
$C_{12}H_{25}S$	-SC(S)S-		$C_{12}H_{25}S$	266-270	$CHCl_3$[c]					8
H	$-S(CH_2)_2S-$		H	>320	o-DCB[b]	0.45		CH_2Cl_2	0.1M TBAHP	3
CH_3S	CH_3S	CH_3S	CH_3S	302-304	$CHCl_3$	0.74	1.09	DCE	0.1M TBAP	4, 5
CH_3S	C_2H_5S	C_2H_5S	CH_3S	267-269	$CHCl_3$	0.71	1.06	CH_2Cl_2	0.1M TBAP	8
C_2H_5S	C_2H_5S	C_2H_5S	C_2H_5S	161-163	$CHCl_3$	0.71	1.09	DCE	0.05M TBAP	4
CH_3S	$C_5H_{11}S$	$C_5H_{11}S$	CH_3S	232-233	$CHCl_3$	0.74	1.09	CH_2Cl_2	0.1M TBAP	8
CH_3S	$^{i}C_5H_{11}S$	$^{i}C_5H_{11}S$	CH_3S	222	$CHCl_3$					8
CH_3S	$C_{12}H_{25}S$	$C_{12}H_{25}S$	CH_3S	185-187	$CHCl_3$	0.74	1.12	CH_2Cl_2	0.1M TBAP	8
$C_5H_{11}S$	$C_5H_{11}S$	$C_5H_{11}S$	$C_5H_{11}S$	155-157	$CHCl_3$	0.74	1.11	DCE	0.05M TBAP	4
$^{i}C_5H_{11}S$	CH_3S	CH_3S	$^{i}C_5H_{11}S$	162-164	$CHCl_3$					8
$-S(CH_2)_2S-$		$-S(CH_2)_2S-$		>360	o-DCB[b]	0.9		CH_3CN	0.05M TBAP	4
-SC(O)S-		-SC(O)S-		>360	o-DCB[b]					4
CH_3S	$-SCH_2S-$		CH_3S	>360	$CHCl_3$					5
$C_6H_{13}O$	$-SCH_2S-$		$C_6H_{13}O$	134	$CHCl_3$	0.66	1.03	TCE	0.1M TBAHP	11
CH_3S	$-S(CH_2)_2S-$		CH_3S	>320 (dec.)	$C_2H_2Cl_4$	0.62	0.97	o-DCB	0.1M TBAP	8

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization. [c]Solvent for UV. [d]Solvent for chromatography.

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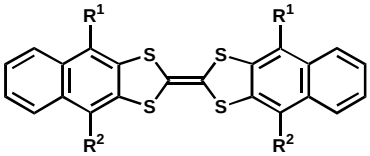

R^1	R^2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. Cp_2Fe)		reference
OH	OH	216-218	acetone					1, 2
OCH_3	OCH_3	315-316						2
$OP(O)(OEt)_2$	OEt	129 (*cis*)	$CHCl_3$					1
$OC(O)CH_3$	$OC(O)CH_3$	333-334						2
$OC(O)C_5H_{11}$	$OC(O)C_5H_{11}$	200-204	$CHCl_3$	1.115	0.935	b)	0.1M TBAP[c)]	1

[a]Solvent for ^{1}HNMR. [b]Toluene:acetonitrile, 9:1. [c]Ag wire.

(1) W. H. Watson, E. E. Eduok, R. P. Kashyap and M. Krawiec, *Tetrahedron,* **49**, 3035 (1993).
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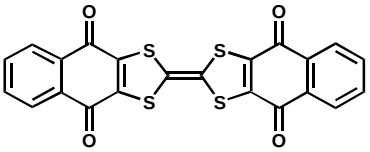

mp/°C	solubility[a)]	E_1	E_2	E_2	CV (vs. SCE)		reference
	$CHCl_3$	-0.90[b)]	-0.32	0.50[b)]	DMF or CH_3CN	0.1M TBAP	1
>360							2

[a]Solvent for ^{1}HNMR. [b]The peak potential of an irreversible anodic wave.

(1) W. H. Watson, E. E. Eduok, R. P. Kashyap, and M. Krawiec, *Tetrahedron,* **49**, 3035 (1993).
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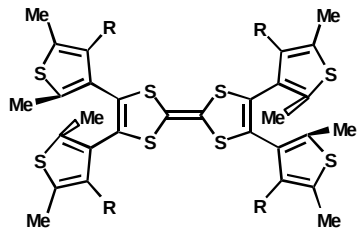
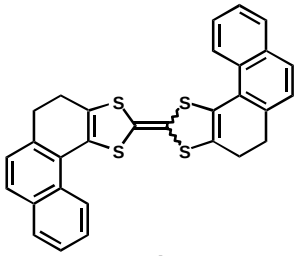


R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
Me	oil	$CHCl_3$	b)	b)	0.1M TBAP[c)]	1
H	oil					1

[a]Solvent for ^{1}H- NMR. [b]No clear peak potentials. [c]Under UV-vis irradiation.

(1) K. Uchida, G. Masuda, Y. Aoi, K. Nakayama, and M. Irie, *Chem. Lett*., 1071 (1999)



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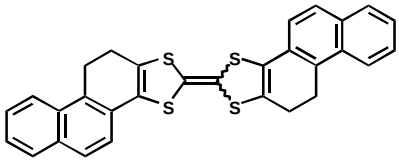
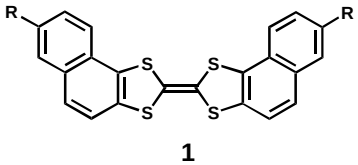


2

		mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	*cis*	204-208	acetone	0.32	0.69	CH_3CN	0.05M TEAP	1
	trans	224-228	$CHCl_3$	0.31	0.70	CH_3CN	0.05M TEAP	1
2		>360	o-DCB	0.37	0.76	CH_3CN	0.05M TEAP	1

[a]Solvent for recrystallization.

(1) E. Fanghänel, L. Van Hinh, and G. Schukat, *J. Prakt. Chem* ., **335**, 599 (1993).



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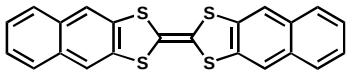

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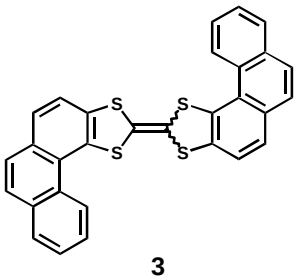

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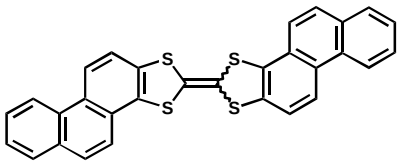
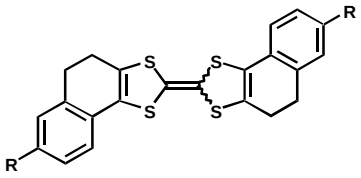


4

		mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	H	302-303	benzene	0.52		[b)]	0.1M LiCl	1
	OCH_3	279-284	benzene	0.49	0.85	[b)]	0.1M LiCl	1
2		>400	pyridine					2
3		359-361	o-DCB	0.53	0.95	CH_3CN	0.05M TEAP	3
4		>360	o-DCB	0.52	0.98	CH_3CN	0.05M TEAP	3

[a]Solvent for recrystallization. [b]MeOH-benzene (4:1, v/v).

(1) G. Schukat, and E. Fanghänel, *J. Prakt. Chem.,* **327**, 767 (1985).
(2) J. Nakayama, E. Seki, and M. Hoshino, *J. Chem. Soc., Perkin Tras. I,* 468 (1978).
(3) E. Fanghänel, L. Van Hinh, and G. Schukat, *J. Prakt. Chem* ., **335**, 599 (1993).



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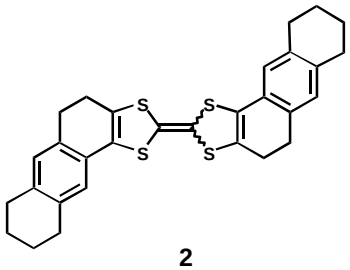
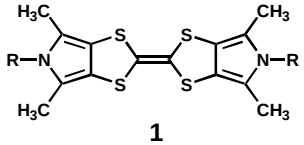


2

	R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	H	209-211	benzene[b)]	0.38	0.80	CH_3CN	0.05M TEAP	1, 2, 3
	OCH_3	211-213	benzene[b)]	0.30	0.68	[c)]	0.1M LiCl	3
2		309-310	$CHCl_3$	0.33	0.75	CH_3CN	0.05M TEAP	1

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization. [c]MeOH-benzene (4:1, v/v).

(1) E. Fanghänel, L. Van Hinh, and G. Schukat, *J. Prakt. Chem* ., **335**, 599 (1993).
(2) G. Schukat, and E. Fanghänel, *J. Prakt. Chem.,* **321**, 675 (1988)
(3) G. Schukat, and E. Fanghänel, *J. Prakt. Chem.,* **327**, 767 (1985).



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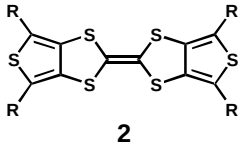
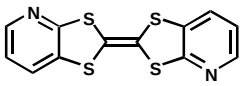


2

	R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	H	>300	$CHCl_3$	0.31	0.70	CH_3CN	0.1M TBAHP	1
				0.298	0.86	CH_2Cl_2	0.1M TBAHP	2
	Me	>250	$CHCl_3$	0.289	0.83	CH_2Cl_2	0.1M TBAHP	2
	$C_{18}H_{37}$	126-128	$CHCl_3$	0.275	0.81	CH_2Cl_2	0.1M TBAHP	2
	Ph			0.39	0.74	CH_3CN	0.1M TBAHP	1
		>250	$CHCl_3$	0.289	0.84	CH_2Cl_2	0.1M TBAHP	2
	$CO_2{}^t$Bu	>250	CH_3CN[b)]	0.613	1.08	CH_2Cl_2	0.1M TBAP	2
	$(CH_2)_5Cl$	230-232 (dec.)	$CHCl_3$					3
	$(CH_2)_5I$	182-183 (dec.)	$CHCl_3$					3
2	Me	295-297	CCl_4					4, 5
	SCH_3	183-184	$CHCl_3$	0.87	1.16	CH_3CN	0.1M TBAP	6

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization.

(1) W. Chen, M. P. Cava, M. A. Takassi, and R. M. Metzger, *J. Am. Chem. Soc* ., **110**, 7903 (1988).
(2) K. Zong, W. Chen, M. P. Cava, and R. D. Rogers, *J. Org. Chem* . **61**, 8117 (1996).
(3) K. B. Simonsen, N. Thorup, M. P. Cava, and J. Becher, *Chem. Commun.,* 901 (1998).
(4) K. Lerstrup, and D. O. Cowan, *J. Phys. (Paris) C3,* **44**, 1247 (1983).
(5) K. Lerstrup, M. Lee, D. O. Cowan, and T. J. Kistenmacher, *Mol. Cryst. Liq. Cryst.,* **120**, 295 (1985).
(6) K. Kobayashi, *Chem. Lett.,* 1423 (1985).



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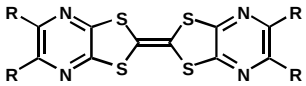

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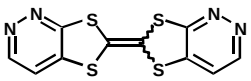

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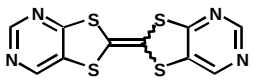

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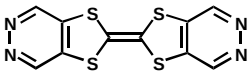
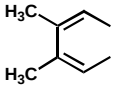
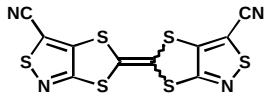


5

	R	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
1		278	$CHCl_3$					1
2	H	303	CH_2Cl_2[a)]	0.89	1.17	CH_3CN	0.1M TEAP	2, 3, 4
	Me	>310	CH_2Cl_2[a)]	0.99	1.28	CH_3CN	0.1M TEAP	2, 3, 5
		>310	CH_2Cl_2[a)]					2, 4
		>310	CH_2Cl_2[a)]					2
		>310	CH_2Cl_2[a)]					2
3								4
4								4
5		300 (dec.)	DMSO					4, 6

[a]Solvent for chromatography.

(1) G. C. Papavassiliou, *Chim. Chron* ., **15**, 161 (1986).
(2) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *Chem. Scr* ., **27**, 265 (1987).
(3) G. C. Papavassiliou, S. Y. Yiannopoulos, J. S. Zambounis, K. Kobayashi, and K. Umemoto, *Chem. Lett* ., 1279 (1987).
(4) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *Mol. Cryst. Liq. Cryst* ., **120**, 333 (1985).
(5) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *J. Chem. Soc., Chem. Commun* ., 820 (1986).
(6) A. Gorgues, P. Batail, and A. Le Coq, *J. Chem. Soc., Chem. Comun* ., 405 (1983).



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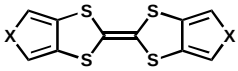

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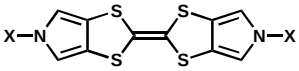
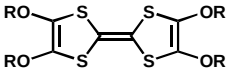


3

	X	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
1		>300	CH_3CN[a)]					1
2	O		CH_3CN[b)]	0.72	1.03	CH_3CN	0.1M TBAHP	2
	S	263-265 (dec.)	$CHCl_3$	0.78	0.96	DMF	0.1M TBAHP	3
	Se	260-263	CH_3CO_2Et	0.78	0.96	DMF	TBAHP	4
3	Ts			0.38	0.72	CH_3CN [c)]	0.1M TBAHP	5
	H			0.55	0.96	CH_3CN [c)]	0.1M TBAHP	5
	CH3			0.36	0.70	CH_3CN [c)]	0.1M TBAHP	5
	$^nC_4H_9$			0.36	0.70	CH_3CN [c)]	0.1M TBAHP	5

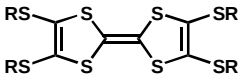
[a]Solvent for UV. [b]Solvent for CV. [c]V vs. Ag / AgCl

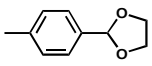
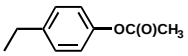
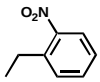
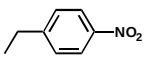
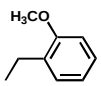
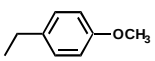
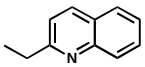
(1) G. C. Papavassiliou, G. A. Mousdis, V. Gionis, J. S. Zambounis, and S. Y. Yiannopoulos, *Z. Naturforsch. B*, **42**,1050 (1987).
(2) Y. Siquot, P. Frère, T. Nozdryn, J. Causseau, M. Sallé, M. Jubault, J. Orduna, J. Garín, and A. Gorgues, *Tetrahedron. Lett*., **38**, 1919 (1997).
(3) C. Rovira, J. Veciana, N. Santaló, J. Tarrés, J. Cirujeda, E. Molins, J. Llorca, and E. Espinosa, *J. Org. Chem*., **59**, 3307 (1994).
(4) R. Ketchanm, A. Hörnfeldt, and S. Gronowitz, *J. Org. Chem*., **49**, 1117 (1994).
(5) J. O. Jeppesen, K. Takimiya, F. Jensen, and J. *Becher, Org. Lett*., **1**, 1291 (1999)

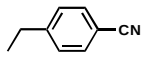
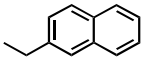
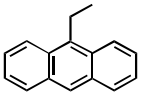
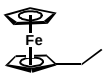
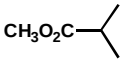


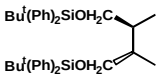
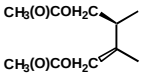
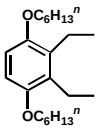
R	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
CH_3	71-73	$CHCl_3$	0.44	0.75	PhCN	0.1M TBAP	1
$-(CH_2)_2-$	178 (dec.)	$CHCl_3$	0.44	0.7	DMF	0.1M TBAHP	2, 3
$-(CD_2)_2-$	244 (dec.)	$CHCl_3$					4

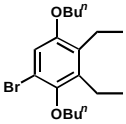
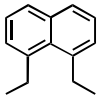
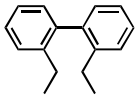
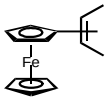
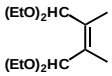
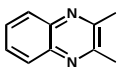
(1) Y. Misaki, H. Nishikawa, K. Nomura, T. Yamabe, H. Yamochi, T. Sato, and M. Shiro, *J. Chem. Soc. Chem. Commun*., 1410 (1992).
(2) T. Suzuki, H. Yamochi, G. Srdanov, K. Hinkelmann, and F. Wudl, *J. Am. Chem. Soc*., **111**, 3108 (1989).
(3) D. L. Lichtenberger, R. L. Johnston, K. Hinkelmann, T. Suzuki, and F. Wudl, *J. Am. Chem. Soc*., **112**, 3302 (1990).
(4) H. H. Wang, P. E. Reed, and J. M. Williams, *Synth. Met*., **14**, 165 (1986).



R	mp/°C	solubility[h)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	95-96		0.64	0.93	DCE	0.1M TBAT	1
C_2H_5	72-73		0.54	0.94	DCE	0.1M TBAT	1
C_3H_7	30-31		0.63	0.94	DMF	0.1M TBAT	1
C_4H_9	26-26.5		0.64	0.94	DCE	0.1M TBAT	1
C_5H_{11}	31.5-32.5		0.64	0.93	DCE	0.1M TBAT	1
C_6H_{13}	29.5-30.5		0.64	0.93	DCE	0.1M TBAT	1
C_7H_{15}	44-46		0.64	0.94	DCE	0.1M TBAT	1
C_8H_{17}	48.5-49.5		0.64	0.94	DCE	0.1M TBAT	1
C_9H_{19}	57.5-59		0.64	0.94	DCE	0.1M TBAT	1
$C_{10}H_{21}$	59-60		0.64	0.94	DCE	0.1M TBAT	1
$C_{11}H_{23}$	64-65.5		0.64	0.94	DCE	0.1M TBAT	1
$C_{12}H_{25}$	68-69		0.64	0.95	DCE	0.1M TBAT	1
$C_{13}H_{27}$	74.5-75.5		0.64	0.95	DCE	0.1M TBAT	1
$C_{14}H_{29}$	78-79		0.64	0.94	DCE	0.1M TBAT	1
$C_{15}H_{31}$	80-81.5		0.64	0.94	DCE	0.1M TBAT	1
$C_{16}H_{33}$	81.5-83		0.65	0.94	DCE	0.1M TBAT	1
$C_{17}H_{35}$	84-85.5		0.64	0.94	DCE	0.1M TBAT	1
$C_{18}H_{37}$	92		0.64	0.94	DCE	0.1M TBAT	1
$CH(CH_3)_2$							68
$(CH_2)_3SH$			0.35 [g)]	0.66 [g)]	CH_2Cl_2	0.1M TBAHP[d)]	3
C_6H_5	167-169	$CHCl_3$	0.55	0.9	CH_2Cl_2	0.1M TBAHP	2
C(O)Ph	163-169	benzene[a)]	0.66	0.89	CH_3CN	0.1M TBAP	3, 4, 5
$CH_2C_6H_5$	166.5-168.5	$CHCl_3$					6
$CH_2O(CH_2)_2SiCH_3$							7
$CH_2O(CH_2)_2Si(CH_3)_3$	64-65	CH_3CN[b)]					8
$(CH_2)_2OSiPh_2{}^tBu$	oil	$CHCl_3$					9
$CH_2CO_2CH_3$	108	THF[a)]					10
							67
	170-173(dec.)	$CHCl_3$					11
							12
							12
							12
							12
							12

							12
							12
							12
CH_2CH_2Cl	158-160	CH_3CN[a]	0.61	0.87	CH_3CN	0.1M TBAT	13, 14
$CH_2CH_2CH_2Cl$	62-63	CH_2Cl_2	0.6	0.92	CH_2Cl_2	0.1M TBAHP[d]	15
$CH_2CH_2CH_2CH_2Cl$		CH_3CN[c]	0.58	0.86	CH_3CN	0.1M TBAHP[d]	58
CH_2CH_2Br	169-171	CCl_4-C_6H_6[a]	0.62	0.88	CH_3CN	0.1M TBAT	14
CH_2CH_2I	166-167 (dec.)	C_6H_6[a]	0.60	0.87	CH_3CN	0.1M TBAT[d]	14
$CH_2CH_2CH_2I$	68-70	EtOH	0.61	0.94	CH_2Cl_2	0.1M TBAHP[d]	15
$CH_2CH_2CH_2CH_2I$		CH_3CN[c]	0.57	0.85	CH_3CN	0.1M TBAHP[d]	58
$CH_2CH_2C_6F_{13}$		CH_2Cl_2[c]	0.75	1.02	CH_2Cl_2	TBAHP	57
CH_2CN							68
CH_2CH_2CN	209-210	DMSO	0.75	1.06	CH_2Cl_2	0.1M TBAHP	7
$CH(CH_3)CN$							68
CH_2CH_2OH	137-138	acetone[a]	0.53	0.74	CH_3CN	0.1M TBAT	14
$CH_2CH_2OCH_2CH_2OH$	81-83	DMSO	0.47	0.79	CH_2Cl_2	0.1M TBAHP[d]	17
$(CH_2CH_2O)_3CH_3$							59
$CH_2CH_2SCH_3$	65-67		0.60	0.84	CH_3CN		18
$CH_2CH_2CO_2C_6H_5$	107-109	*i* PrOH[a]	0.59	0.91	CH_3CN	0.1M TBAT	14
$CH_2CH_2OSO_2C_6H_4Cl^p$	146-148 (dec.)	C_6H_6[a]	0.6	0.87	CH_3CN	0.1M TBAT	14
$CH(CH_2)_{19}CH_3$ COOEt							69
$CH(CH_2)_{19}CH_3$ COOH							69
$(CH_2)_{21}COOEt$							69
$(CH_2)_{21}COOH$							69
$CH=CH_2$	45-46	$CHCl_3$	0.59	0.92	CH_2Cl_2	0.1M TBAHP	8, 13
	99-101	$CHCl_3$	0.55	1.01	CH_2Cl_2	0.1M TBAT[f]	19
	75-77	CH_2Cl_2[a]	0.57	1.05	CH_2Cl_2	0.1M TBAHP	20
$-CH_2-$							21
	>360	200(dec.)	0.83		CCl_4		60
	198	CH_3CN[b]					22
$-(CH_2)_2-$			0.57	0.83	CH_3CN	0.1M TBAHP	23
	175	CH_2Cl_2[b]					24
	207-210 (dec.)	$CHCl_3$	0.47	0.62	CH_2Cl_2	0.1M TBAHP	25
	109-110	hexane[a]					26

	200-203 (dec.)	$CHCl_3$	0.52	0.86	CH_2Cl_2	0.1M TBAP[d)]	27, 28
	(*R*, *R*)		(racemic mixture)				
	179-180(dec.)	$CHCl_3$	0.01	0.43	CH_3CN	0.1M TBAHP[f)]	21
	62-63(dec.)	$CHCl_3$	0.03	0.44	CH_3CN	0.1M TBAHP[f)]	21
	68-70	$CHCl_3$					34
	165-167	C_6H_5CN[c)]	0.62	0.87	C_6H_5CN	[d)]	29
	138-140	C_6H_5CN[c)]	0.65	0.80	C_6H_5CN	[d)]	29
		CH_3CN[c)]	0.62	0.9	CH_3CN	0.1M TBAP	3
			0.60	0.91	PhCN		66
		CH_3CN[c)]	0.61	0.87	CH_3CN	0.1M TBAP	3
		CCl_4	0.58	0.82	CH_3CN	0.1M TBAHP	30
		pyridine	0.56	0.90	C_6H_5CN	0.15M TBAHP	31
	222 (dec.)						32
$-(CH_2)_2-$	>250(dec.)	CH_3CN[c)]	0.532	0.733	CH_3CN	0.05M TEAP	40
$-(CH_2)_3-$	>250(dec.)	CH_3CN[c)]	0.580	0.861	CH_3CN	0.05M TEAP	33, 40
$-CH_2OCH_2-$	260-262	CH_3CN[c)]	0.67	0.90	CH_3CN	0.1M TBAHP	3, 4
$-CH_2SCH_2-$	275-278						35
$-(CH_2)_4-$	151	$CHCl_3$	0.53	0.95	CH_2Cl_2	0.1M TBAH[d)]	36, 37
$-(CH_2)_5-$			0.644	1.055	CH_2Cl_2	0.1M TBAP[d)]	38
	240 (dec.)	CH_2Cl_2[a)]	0.57	1.03	CH_2Cl_2	0.1M TBAHP	70
$-(CH_2)_6-$	228 (dec.)	CH_2Cl_2[a)]	0.93		CH_2Cl_2	0.1M TBAHP	70
$-CH_2CH=CHCH_2-$	165-167 (dec.)	C_6H_6[a)]					41
	167-170	$CHCl_3$	0.59	0.93	$PhNO_2$	0.1M TBAP[d)]	42
	195-200 (dec.)	$CHCl_3$	0.57	0.92	$PhNO_2$	0.1M TBAP[d)]	42
	185-188 (dec.)	$CHCl_3$	0.6	0.92	$PhNO_2$	0.1M TBAP[d)]	42
	265-267 (dec.)	$CHCl_3$	0.52	0.98	CH_2Cl_2	0.1M TBAHP[d)]	37
	184	$CHCl_3$	0.33	0.82	CH_2Cl_2	0.1M TBAHP	43, 44

 (*cis/trans*)	206 (dec.)	$CHCl_3$	0.52	0.96	CH_2Cl_2	0.1M TBAHP	44, 45
	243-244 (dec.)	CH_2Cl_2[b]	0.53	1.06	CH_2Cl_2	0.1M TBAHP[d]	36, 37
			0.63	0.91	$PhNO_2$	0.1M TBAP[d]	
-CH=CH-	> 220	pyridine[a]	0.73	0.99	PhCN	0.1M TBAP	3, 46
	204 (dec.)	$CHCl_3$	0.80		THF	0.1M TBAP	48, 49
	>240 (dec.)	CH_2Cl_2-MeOH	0.61		CH_3CN	0.1M TBAB	65
	249-250 (dec.)	$CHCl_3$[a]	0.80		THF	0.1M TBAP	48, 50
	> 230 (dec.)	pyridine[a]	0.70	0.96	PhCN	0.1M TBAP	3, 46
	200	CCl_4	0.85		THF		64
	185 (dec.)	CCl_4[a]	0.86		THF	0.1M TBAP	51
							71
	286-287 (dec.)	CCl_4[a]	0.75	1.13	CH_2Cl_2	0.1M TBAHP	52
	264 (dec.)	$CHCl_3$-CS_2	0.68	0.94	PhCN	0.1M TBAP	32
	> 320	CH_2Cl_2[b]					54
	249-250 (dec.)	pyridine[a]	0.76	1.02	PhCN	0.1M TBAP	3, 47
 (*cis/trans*)	228-229 (dec.)	pyridine[a]	0.67	0.96	PhCN	0.1M TBAP	3, 47
	270 (dec.)	pyridine[a]	0.69	0.97	PhCN	0.1M TBAP	3, 47
 (*cis/trans*)	250 (dec.)	pyridine[a]	0.61	0.91	PhCN	0.1M TBAP	3, 47
	295						55
	350-351 (dec.)	TCB[a]					56

[a]Solvent for recrystallization. [b]Solvent for UV. [c]Solvent for CV. [d]V vs. Ag / AgCl. [e]V vs. Ag wire.
[f]V vs Ag / $AgNO_3$. [g]Mesurement of monolayer. [h]Solvent for ^{1}HNMR.

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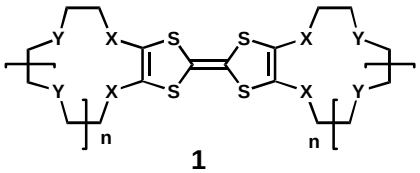

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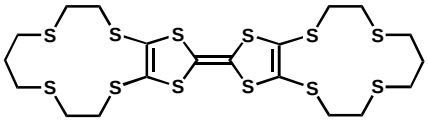

2

	X	Y	n	mp/℃	solubility	E_1	E_2	CV (V vs. SCE)			referrece
1	S	S	2		$CHCl_3$ [a)]	0.48	0.78	CH_2Cl_2	0.4M	TBAHP	1
	S	O	0	230-233	$CHCl_3$	0.48	0.64	CH_3CN	0.1M	TBAHP	5
	S	O	1	230-233	$CHCl_3$	0.48	0.64	CH_3CN	0.1M	TBAHP	5
	S	O	2	211-212(dec.)	acetone	0.52	0.75	CH_2Cl_2		TBAP[b)]	2, 3, 5
	S	O	3	98-99	CH_3CO_2Et	0.48	0.64	CH_3CN	0.1M	TBAHP	5
	S	O	4	59	CH_3CO_2Et	0.48	0.64	CH_3CN	0.1M	TBAHP	5
	S	S	1	>220(dec.)	CH_2Cl_2-MeOH [a)]	0.61	0.85	CH_2Cl_2	0.1M	TBAP[b)]	4
	S	S	2	235-240(dec.)	CH_2Cl_2-MeOH [a)]	0.52	0.82	CH_2Cl_2	0.1M	TBAP[b)]	4
	S	S	3	153-155(dec.)	CH_2Cl_2-MeOH [a)]	0.52	0.80	CH_2Cl_2	0.1M	TBAP[b)]	4
2				236-238	$CHCl_3$ [a)]	0.53	0.89	CH_2Cl_2	0.1M	TBAHP	6
						0.63	0.92	CH_2Cl_2	0.1M	TBAHP[c)]	

[a]Solvent for ^{1}H-NMR. [b]V vs. Ag / AgCl. [c]Mesured with exess $AgClO_4$.

(1) N. Rbertson, S. Vukojevic, X. Liu, L. J. Yellowlees, and S. Parsons, *J. Chem. Soc., Dalton Trans* ., 3913 (1999).
(2) T. Otsubo, and F. Ogura, *Bull. Chem. Soc. Jpn* ., 58, 1314 (1985).

(3) J. Becher, T. K. Hansen, N. Malhotra, G. Bojesen, S. Bowadt, K. S. Varma, B. Girmay, J. D. Kilburn, and A. E. Underhill, *J. Chem. Soc., Perkin Trans . 1* , 175 (1990).
(4) M. Wagner, D. Madsen, J. Markussen, S. Larsen, K. Schaumburg, K. Lubert, J. Becher, and R. Olk *J. Chem. Soc., Perkin Trans. 1* , 1995 (1996).
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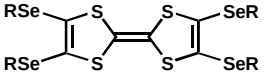

R	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	93.5-93.7	hexane-benzene	0.58	0.93	DCE	0.1M TBAT	1
	109.5-109.7	hexane					
	88-89	CH_3CO_2Et-hexane	0.544	0.929	CH_2Cl_2	0.1M TBAHP	2
C_2H_5	62.7-63.5	hexane-benzene					1
C_3H_7	37.4-38.3	hexane-benzene					1
		$CHCl_3$[b)]	0.439	0.861	CH_2Cl_2	0.1M TBAHP	2
C_4H_9	38.8-39.3	hexane					1
		$CHCl_3$[b)]	0.443	0.859	CH_2Cl_2	0.1M TBAHP	2
C_5H_{11}	29.9-30.7	hexane					1
		$CHCl_3$[b)]	0.508	0.917	CH_2Cl_2	0.1M TBAHP	2
C_6H_{13}	32.5-32.9	hexane					1
C_7H_{15}	39.0-39.7	hexane					1
C_8H_{17}	48.7-49.2	hexane-benzene					1
C_9H_{19}	56.0-56.8	hexane-benzene					1
$C_{10}H_{21}$	62.2-62.8	hexane-benzene					1
$C_{11}H_{23}$	66.2-67.5	hexane					1
$C_{12}H_{25}$	74.3-75.2	hexane					1
$C_{13}H_{27}$	79.7-80.3	hexane					1
$C_{14}H_{29}$	83.3-84.1	hexane					1
$C_{15}H_{31}$	86.0-86.6	hexane					1
$C_{16}H_{33}$	87.7-89.2	hexane					1
$C_{17}H_{35}$	90.4-91.3	hexane					1
$C_{18}H_{37}$	94.2-94.6	hexane					1
CH_2CH_2CN	182-183	$CHCl_3$[b)]	0.70	1.01	CH_2Cl_2	0.1M TBAHP	6
$-CH_2-$	257 (dec.)	CS_2	0.4	0.67	C_6H_5CN	0.1M TBAHA	3
$-(CH_2)_2-$	241 (dec.)	PhCl[c)]	0.44	0.77	C_6H_5CN	0.1M TBAHA	3, 4
$-(CH_2)_3-$	272-277	o-DCB	0.145	0.54	C_6H_5CN	0.1M TBAHA[d)]	3, 5
C_6H_5	154-156	THF-hexane	0.495	0.892	CH_2Cl_2	0.1M TBAHP	2

[a]Solvent for recrystallization. [b]Solvent for ^{1}HNMR. [c]Solvent for UV. [d]V vs. Ag / $AgNO_3$

(1) H. Yamochi, N. Iwasawa, H. Urayama, and G. Saito, *Chem. Lett* ., 2265 (1987).
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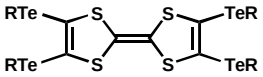
(4) P. J. Nigrey, B. Morosin, and E. Duesler, *Synth. Met*., **27**, B 481 (1988).
(5) P. J. Nigrey, *J. Org. Chem*., **53**,201 (1988).
(6) L. Binet, J. M. Fabre, C. Montginoul, K.B. Simonsen and J. Becher, *J. Chem. Soc., Perkin Trans*. *1*, 783 (1996).



R	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
CH_3	175-176	$CHCl_3$ or ether	0.52	0.91		DCE	0.1M TBAT	1
			0.37	0.70	0.99	PhCN	TBAP[b)]	2
C_2H_5	90.2-91.2	$CHCl_3$-MeOH or ether	0.51	0.91		DCE	0.1M TBAT	1
C_3H_7	62.2-62.7	$CHCl_3$-MeOH or ether	0.51	0.91		DCE	0.1M TBAT	1
C_4H_9	85.7-86.5	$CHCl_3$-MeOH or ether	0.51	0.91		DCE	0.1M TBAT	1
C_5H_{11}	56.9-57.4	$CHCl_3$-MeOH or ether	0.51	0.93		DCE	0.1M TBAT	1
C_6H_{13}	46	$CHCl_3$-MeOH or ether	0.52	0.92		DCE	0.1M TBAT	1
C_7H_{15}	49.9-50.2	$CHCl_3$-MeOH or ether	0.51	0.92		DCE	0.1M TBAT	1
C_8H_{17}	57.7	$CHCl_3$-MeOH or ether	0.51	0.92		DCE	0.1M TBAT	1
C_9H_{19}	65.2-65.7	$CHCl_3$-MeOH or ether	0.51	0.92		DCE	0.1M TBAT	1
$C_{10}H_{21}$	72.7	$CHCl_3$-MeOH or ether	0.52	0.92		DCE	0.1M TBAT	1
$C_{11}H_{23}$	77.5-78.5	$CHCl_3$-MeOH or ether	0.52	0.93		DCE	0.1M TBAT	1
$C_{12}H_{25}$	82.2-82.7	$CHCl_3$ or ether	0.52	0.92		DCE	0.1M TBAT	1
$C_{13}H_{27}$	82.7-87.4	$CHCl_3$ or ether	0.5	0.91		DCE	0.1M TBAT	1
$C_{14}H_{29}$	89.2-90.3	$CHCl_3$ or ether	0.5	0.9		DCE	0.1M TBAT	1
$C_{15}H_{31}$	92.2-93.0	$CHCl_3$ or ether	0.5	0.9		DCE	0.1M TBAT	1
$C_{16}H_{33}$	94.2-94.6	$CHCl_3$ or ether	0.51	0.91		DCE	0.1M TBAT	1
$C_{17}H_{35}$	96.2-97.2	$CHCl_3$ or ether	0.51	0.91		DCE	0.1M TBAT	1
$C_{18}H_{37}$	97.5-98.2	$CHCl_3$ or ether	0.51	0.91		DCE	0.1M TBAT	1
$-(CH_2)_3-$	200 (dec.)	$CHCl_3$-CS_2[c)]	0.39	0.79	0.94	PhCN	TBAP[b)]	2
	203 (dec.)	$CHCl_3$-CS_2[c)]	0.38	0.72	0.94	PhCN	TBAP[b)]	2
CH_2CH_2CN	186-187	DMSO						2
Ph	170.1-170.6	CS_2-petroleum ether, 3:1	0.46	0.87		PhCN	0.1M TBAT[b)]	3

[a]Solvent for recrystallization. [b]V vs. Ag / AgCl. [c]Solvent for ^{1}HNMR.

(1) N. Okada, H. Yamochi, F. Shinozaki, K. Oshima, and G. Saito, *Chem. Lett*.,1861 (1986).
(2) K. Tsutsui, K. Takimiya, Y. Aso, and T. Otsubo, *Tetrahedron Lett.*, **38**, 7569 (1997).
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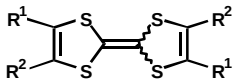
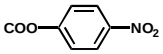
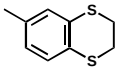
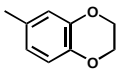
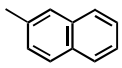
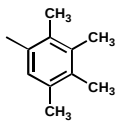
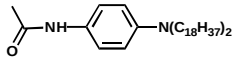
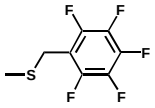
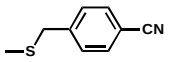
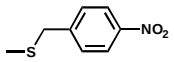
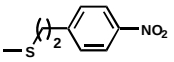
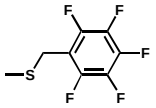
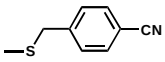
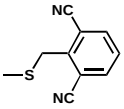
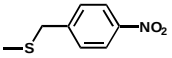
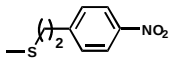
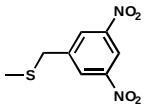
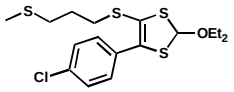
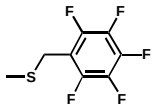
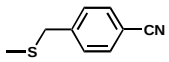
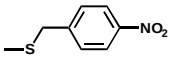
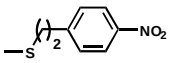


R^1	R^2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
H	*n*-C_6H_{13}	oil	hexane-ether[e)]					1
H	*n*-$C_{17}H_5$	91-92	hexane[b)]					32
H	*n*-$C_{18}H_{37}$	33						1
H	CH_3	96-100	EtOH	0.32	0.68	CH_3CN	0.1M TEAP	5, 26
H	CH_2OH	160 (dec.)	DMSO					4
H	C_6H_5	202-206	CS_2	0.43	0.78	CH_3CN	0.1M TBAP	3, 26
H	SCH_3		CH_2Cl_2[c)]	0.57	0.82	CH_2Cl_2	TBAT	5
H	CO_2H	>360	DMSO					37, 41
H	CO_2Me	244-246	glyme					37
H	CO_2Me *trans*	238-242	CH_3CN[d)]					38
	cis	198-200	MeOH[b)]					39
H	$CO_2CH_2CH=CH_2$	103-105	CH_3CN[b)]					38
H	CO_2CH_2Ph	123-125	CH_3CN[b)]					38
H	CO_2Et	140-160	$CHCl_3$	0.60	0.94	CH_3CN	0.1M TBAP	40
H	$CO_2{}^n$Bu		CH_3CN[c)]	0.65	0.98	CH_3CN	0.1M TBAP	6, 7
H		280 (dec.)	toluene[b)]					37
H	$CO_2C(O)CH_3$	350 (dec.)	CH_3CN[b)]					37
H	CONHPh	224-226	CH_3CN[b)]					37
H	$CONMe_2$	231-232	CH_2Cl_2-ether[b)]					42
H	CHO		DMSO	0.74	1.08	CH_3CN	0.1M TBAHP[f)]	44
H	Cl	118-119	hexane[b)]					45
H	Br		CH_3CN[c)]	0.59		CH_3CN	0.1M TBAP[f)]	8, 9
H	I	91-92	CH_3CN[c)]	0.58	0.96	CH_3CN	0.1M TBAP[f)]	6, 8, 10
H	*p*-C_6H_4CN							31
H								31
H	α-naphthyl	79-81	MeOH[b)]	0.32	0.67	[g)]	0.1M LiCl	12
H	β-naphthyl	243-247	benezene[b)]	0.32	0.67	[g)]	0.1M LiCl	12
H			CH_2Cl_2[c)]	0.4	0.83	CH_2Cl_2	TBAP	13
H			CH_2Cl_2[c)]	0.38	0.86	CH_2Cl_2	TBAP	13
H			CH_2Cl_2[c)]	0.36	0.86	CH_2Cl_2	TBAP	13
H			CH_2Cl_2[c)]	0.28	0.51	CH_2Cl_2	TBAP	13
H	C(O)Cl	240-245						4
H		>250(dec.)	CH_3CN					28
CO_2Bu	I	141-143	$CHCl_3$					14

CO_2Bu	COMe		98-99	$CHCl_3$	0.91	1.22	CH_3CN	0.1M TBAP[f)]	3, 6, 14
H	$C(O)N(C_{18}H_{37})_2$								29
H									29
H	N=C=O		156 (dec.)	C_6H_5-heptane[b)]					4
H	SeC_6H_5		114						15
H	$TeCH_3$		125-126	$CHCl_3$					46
H	$TeCH_2CH_3$		85	$CHCl_3$	0.53	0.93	CH_2Cl_2	0.1M TBAB	16
H	TePh	*cis*	179.6	CS_2-PE[h)]	0.54	0.84	PhCN	0.1M TBAT[i)]	36
		trans	152.0-1523.7	CS_2-PE[h)]	(mixture of *cis* and *trans* isomers)				36
H	$Si(CH_3)_3$		131-133	$CHCl_3$					11
H	$P(C_6H_5)_2$								18
CH_3	C_2H_5		102	$CHCl_3$	0.24	0.61	CH_3CN	0.1M TBAP	33
CH_3	Ph		145-154	benzene-MeOH[b)]	0.34	0.73	g)	0.1M LiCl	27
CH_3	α-naphthyl	(*Z*)	110-111	$CHCl_2$[d)]	0.3	0.66	g)	0.1M LiCl	12
CH_3	α-naphthyl	(*E*)	206-209	benezene[b)]	0.3	0.66	g)	0.1M LiCl	12
CH_3	β-naphthyl		216-218	dioxane-MeOH[b)]	0.3	0.66	g)	0.1M LiCl	12
CH_3	CO_2Me		238-240	CH_3CN[d)]					43
CH_3	SCH_3		141	heptane	0.36	0.72	CH_2Cl_2	0.1M TBAHP	17
CH_3	$SC_{18}H_{37}$		85	heptane	0.35	0.73	CH_2Cl_2	0.1M TBAHP	17
CH_3			177	$CHCl_3$					19
CH_3			248	$CHCl_3$					19
CH_3			201	$CHCl_3$					19
CH_3			188	$CHCl_3$					19
CHO	$CH(OC_2H_5)_2$	(*E*)	172	$CHCl_3$	0.95	1.3	PhCl	0.1M TBAP	20
CHO	$CH(OC_2H_5)_2$	(*Z*)	130-132	$CHCl_3$					20
C_2H_5	SCH_3		86	$CHCl_3$	0.43	0.71	CH_3CN	0.1M TBAP	7, 5
C_9H_{19}	$S(CH_2)_3Br$			$CHCl_3$					22
$C_{11}H_{23}$	$S(CH_2)_{10}COOH$		119	CH_3CN[b)]					22
$C_{11}H_{23}$	SCH_2COOCH_3		58	CH_3CN[b)]					22
$C_{11}H_{23}$	SCH_2COOH		90-95	CH_3CN[b)]					22
$C_{11}H_{23}$	$SCHPh_2$		86	EtOH[b)]					22
$C_{11}H_{23}$	$S(CH_2)_3Br$			$CHCl_3$					22
$C_{11}H_{23}$	$S(CH_2)_6Br$		58	AcOEt[b)]					22
$C_{11}H_{23}$	$S(CH_2)_6N_3$			$CHCl_3$					22
$C_{11}H_{23}$	$S(CH_2)_6NH_2$			$CHCl_3$					22
$C_{11}H_{23}$	$S(CH_2)_6NHPO(OCH_3)_2$			$CHCl_3$					22
$C_{11}H_{23}$	$SSnBu_3$			$CHCl_3$					22
$C_{11}H_{23}$	$S(CH_2)_4Br$			$CHCl_3$					22
n-$C_{16}H_{33}$	*n*-$C_{17}H_{35}$		91-92	benzene[b)]					32
SCH_3	$COOCH_3$				0.63	0.93	CH_3CN	0.1M TBAP	3

$COOCH_3$	$SCH_2OC(O)CH_3$	230 (dec.)	diglyme	0.79	0.67	PhCl	0.1M TBAP[f)]	35
SCH_3	SCH_2CH_2CN							23
SCH_3	$S(CH_2)_2O(CH_2)_2O(CH_2)_2I$	oil	CH_2Cl_2-EtOAc					30
$SCH=CH_2$	$S(CH_2)_2Br$							24
C_6H_5	SCH_3	173	$CHCl_3$					5
p-$C_6H_4CH_3$	$SCH_2CH_2CH_2NH_2$		$CHCl_3$					22
p-$C_6H_4CH_3$	SCH_3	190	$CHCl_3$					5
p-$C_6H_4CH_3$	$SCHPh_2$	222	EtOH[a)]					22
p-$C_6H_4CH_3$	$S(CH_2)_3Br$		$CHCl_3$					22
p-$C_6H_4CH_3$	$S(CH_2)_6Br$		$CHCl_3$					22
p-$C_6H_4CH_3$	$S(CH_2)_3N_3$		$CHCl_3$					22
p-$C_6H_4CH_3$	$S(CH_2)_6N_3$		$CHCl_3$					22
p-$C_6H_4CH_3$	$S(CH_2)_3NHPO(OCH_3)_2$		$CHCl_3$					22
p-$C_6H_4CH_3$	$SSnBu_3$		$CHCl_3$					22
p-$C_6H_4CH_3$		164	$CHCl_3$					19
p-$C_6H_4CH_3$		>260	$CHCl_3$					19
p-$C_6H_4CH_3$		>260	$CHCl_3$					19
p-$C_6H_4CH_3$		>260	$CHCl_3$					19
p-$C_6H_4CH_3$		120	$CHCl_3$					19
p-$C_6H_4CH_3$		188	CH_3CN-ether[b)]					34
p-$C_6H_4CO_2H$	$SC_{18}H_{37}$	153	AcOEt[b)]					22
p-C_6H_4Cl	$S(CH_2)_{10}CO_2H$	139	CH_3CN[b)]					22
p-C_6H_4Cl	SCH_3	186	$CHCl_3$					5
p-C_6H_4Cl	SC_2H_5	130	$CHCl_3$					5
p-C_6H_4Cl	SCH_2Ph	170	$CHCl_3$					5
p-C_6H_4Cl	$SCHPh_2$	218	AcOEt[b)]					22
p-C_6H_4Cl	$S(CH_2)_3Br$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_6Br$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_3N_3$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_6N_3$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_3NHPO(OCH_3)_2$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_6NHPO(OCH_3)_2$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_3NH_2$		$CHCl_3$					22
p-C_6H_4Cl	$S(CH_2)_6NH_2$		$CHCl_3$					22
p-C_6H_4Cl	$SSnBu_3$		$CHCl_3$					22

p -C_6H_4Cl		160		25
p -C_6H_4Cl		190	$CHCl_3$	19
p -C_6H_4Cl		>260	$CHCl_3$	19
p -C_6H_4Cl		266	$CHCl_3$	19
p -C_6H_4Cl		160	$CHCl_3$	19

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization. [c]Solvent for CV. [d]Solvent for UV. [e]Solvent for chromatography. [f]V vs. Ag / AgCl. [g]MeOH-benzene, 4:1, v/v. [h]PE = petroleum ether. [i]V vs. Ag / $AgNO_3$ (0.01M).

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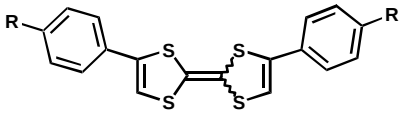

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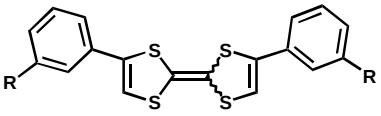

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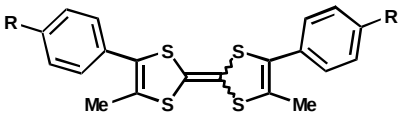

3

	R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	OH	207-208	MeOH[b)]					1
	OCH_3	254-256	THF					2
				0.33	0.73	MeOH-benzene[d)]	0.1M LiCl	3
	SCH_3	249-253	DMF[b)]	0.36	0.75	MeOH-benzene[d)]	0.1M LiCl	3
	$NHC(O)CH_3$	329-333	DMF-MeOH[b)]	0.35	0.70	MeOH-benzene[d)]	0.1M LiCl	3
	CH_3	250-256	benzene-MeOH[b)]	0.35	0.76	MeOH-benzene[d)]	0.1M LiCl	3
	Ph		CH_2Cl_2[b)]	0.44	0.87	CH_2Cl_2	TBAP	4
		321-323	DMF[b)]	0.40	0.70	MeOH-benzene[d)]	0.1M LiCl	3
	F	231-232	benzene[b)]	0.40	0.81	MeOH-benzene[d)]	0.1M LiCl	3
	Cl		CH_3CN[c)]	0.50	0.84	CH_3CN	0.1M TBAP	5
		245-251	benzene-MeOH[b)]	0.43	0.79	MeOH-benzene[d)]	0.1M LiCl	3
	Br		CH_2Cl_2[b)]					6
		249-255	benzene-MeOH[b)]	0.43	0.79	MeOH-benzene[d)]	0.1M LiCl	3
	I	290-295	DMF[b)]	0.42	0.75	MeOH-benzene[d)]	0.1M LiCl	3
	$OC(O)CH_3$	228-230	benzene[b)]					7, 8
	n-C_4H_9		CH_2Cl_2[c)]	0.43	0.88	CH_2Cl_2		10
	n-C_6H_{13}		CH_2Cl_2[c)]	0.12	0.57	CH_2Cl_2	0.1M TBAP	9
	n-C_8H_{17}	164[e)]	$CHCl_3$					11
	n-$C_{10}H_{21}$		CH_2Cl_2[c)]	0.43	0.89	CH_2Cl_2		10
	OC_4H_9	171[e)]	$CHCl_3$					11
	OC_8H_{17}	146[e)]	$CHCl_3$					11
	$OC_{10}H_{21}$	157[e)]	$CHCl_3$					11
	$OC(O)C_5H_{11}$	186[e)]	$CHCl_3$					11
	$OC(O)C_6H_{13}$	175[e)]	$CHCl_3$					11
	$OC(O)C_7H_{15}$	174[e)]	$CHCl_3$					11
	$OC(O)C_8H_{17}$	171[e)]	$CHCl_3$					11
	$OC(O)C_9H_{19}$	165[e)]	$CHCl_3$					11
	$OC(O)C_{10}H_{21}$	162[e)]	$CHCl_3$					11
	$OC(O)C_{11}H_{23}$	160.5[e)]	$CHCl_3$					11
	$OC(O)C_{12}H_{25}$	157[e)]	$CHCl_3$					11

2	OH	224-225	MeOH[b)]					1
	$OC(O)CH_3$	185-186	EeOH[b)]					7
3	OCH_3	187-191	CH_3CN[b)]	0.30	0.71	MeOH-benzene[d)]	0.1M LiCl	3
	CH_3	192-196	CH_3CN[b)]	0.33	0.75	MeOH-benzene[d)]	0.1M LiCl	3
	Cl	223-226	benzene[b)]	0.38	0.79	MeOH-benzene[d)]	0.1M LiCl	3
	Br	212-215	benzene[b)]	0.38	0.78	MeOH-benzene[d)]	0.1M LiCl	3
	$OC(O)CH_3$	136	$CHCl_3$					8
	Ph	276-278	DMF[b)]	0.37	0.71	MeOH-benzene[d)]	0.1M LiCl	3

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization. [c]Solvent for CV. [d]4:1, v/v. [e]glass transition.

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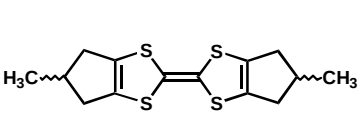

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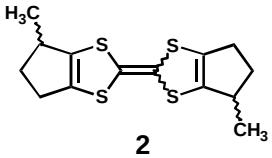

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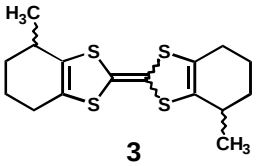

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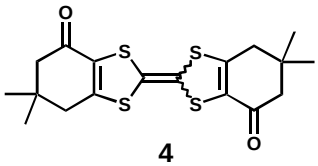

4

	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	155-156	hexane	0.30	0.63	CH_3CN	0.1M TEAP	1
2[b)]	137-139	hexane	0.30	0.64	CH_3CN	0.1M TEAP	1
	119-120	nitroethane					1
3	202-203	THF[c)]	0.25	0.68	MeOH-benzene[d)]	0.1M LiC	2
4	270-278 (dec.)	DMF	0.70	1.0	CH_3CN		3

[a]Solvent for recrystallization. [b]Two isomers. [c]Solevent for UV. [d]4:1, v/v

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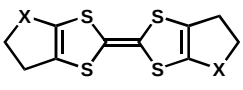
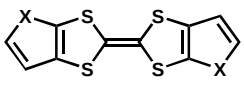


1



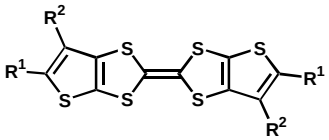
2

X	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference

1	S		196-197	toluene	0.36	0.68	PhCN	0.1M TBAP[b)]	1
		cis	184-186	$CHCl_3$	0.43	0.69	CH_3CN	0.1M TEAP	2
		trans	195-196	PhCl	0.43	0.69	CH_3CN	0.1M TEAP	2
	Se		209-210 (dec.)	toluene	0.38	0.71	PhCN	0.1M TBAP[b)]	1
2	S		228-229	toluene	0.46	0.79	PhCN	0.1M TBAP[b)]	1
			214-215 (dec.)	hexane	0.47	0.74	CH_3CN	0.1M TEAP	2
	Se		237-237.5 (dec.)	toluene	0.32	0.66	PhCN	0.1M TBAP[b)]	1

[a]Solvent for recrystallization. [b]V vs. Ag / AgCl.

(1) T. Jigami, K. Takimiya, and T. Otsubo, *J. Org. Chem*., **63**, 8865 (1998).
(2) E. M. Engler, V. V. Patel, J. R. Andersen, R. R. Schmaker, and A. A. Fukushima, *J. Am. Chem. Soc.,* **100**, 3769 (1978).



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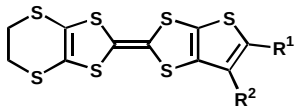

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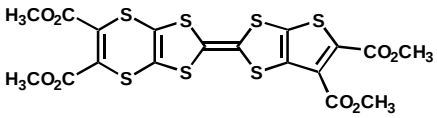
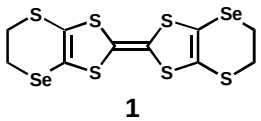


3

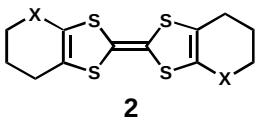
	R^1	R^2	mp/℃	solubility[a)]	E_1	E_2	CV (vs. Ag / AgCl)		reference
1	CO_2Me	H	234 (dec.)	dioxane	0.59	0.87	PhCN	0.1M TBAP	1
	CO_2Me	CO_2Ph	223 (dec.)	benzene-hexane	0.85	1.12	PhCN	0.1M TBAP	1
2	CO_2Me	OH	194-195 (dec.)	$CHCl_3$-EtOH	0.71	1.03	PhCN	0.1M TBAP	1
3				CH_3CN[b)]	0.811	1.185	CH_3CN	0.1M TBAHP	2

[a]Solvent for recrystallization. [b]Solevent for CV.

(1) I. V. Sudmal, V. Yu. Khodorkovskii, A. S. Edzhinya, and O. Ya. Neiland, *Chem. Heterocycl. Comp.,* 761 (1993).
(2) X. Yang, T. B. Rauchfuss, and S. Wilson, *J. Chem. Soc., Chem. Commun.,* 34 (1990).



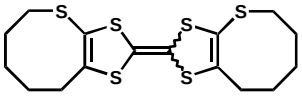
1



2

	X	mp/℃	solubility	E_1	E_2	CV (vs. Ag / AgCl)		reference
1				0.50	0.87	CH3CN	0.1M TBAHP	1
2	S							2
	Se							2

(1) T. Jigami, M. Kawshima, K. Takimiya, Y. Aso, T. Otsubo, *Synth. Met*., **102**, 1619 (1999)
(2) M. Kodani, T. Jigamai K. Takimiya, Y. Aso, and T. Otsubo, *Abstracts of 76th Annual Meeting of the Chemical Society of Japan 1* , 1 E7 27 (1999)



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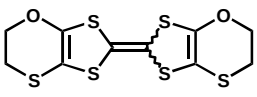
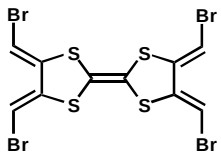


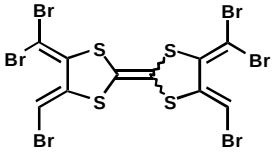
2

	mp/℃	solubility	E_1	E_2	CV (vs. SCE)	reference
1	127-129					1
2			0.39	0.81	CH_2Cl_2 0.1M TBAHP	2

(1) E. Stavridou, H. Schuhmacher, and H. Meier, *Liebigs Ann. Chem*., 425 (1989)
(2) J. Hellberg, M. Moge, D. Bauer, and J. vor Schütz, *J. Chem. Soc., Chem. Commun*., 817 (1994).



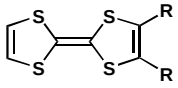
1

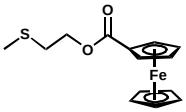
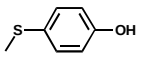
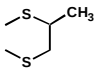
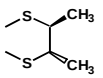
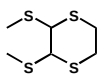
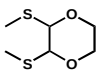
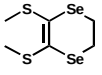


2

	mp/℃	solubility	E_1	E_2	CV (vs. SCE)	reference
1						1
2						1

(1) R. M. Renner, and G. R. Burns, *Tetrahedron Lett.,* **35**, 269 (1994).



R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	117-119	CH_3CN	0.28	0.67	CH_3CN	0.1M TBAP	1, 25
CO_2Et	63	*iso*- octane[d)]	0.57	0.91	CH_3CN	0.1M TEAP	28
$-(CH_2)_3-$	139	$CHCl_3$	0.2	0.54	CH_3CN	$NaClO_4$	3, 5
$-(CH_2)_4-$	122	acetone	0.42	0.84	TCE	0.1M TBAP	4, 5, 23
$-(CH=CH)_2-$	141	acetone	0.6	0.94	TCE	0.1M TBAP	4, 5, 23
C(O)NHMe							26
$-Se(CH_2)_2-$		PhCN[b)]	0.34	0.72	PhCN	TBAP[e)]	6
-N=CH-CH=N-	184	CH_3CN[c)]					7
$-O(CH_2)_2O-$	162	$CHCl_3$					8, 24
SCH_3	60	CH_3CN[c)]					9
$SCH_2CH_2CH_3$	oil	$CHCl_3$					10
SCH_2CH_2OH	98-99	$CHCl_3$	0.46	0.77	CH_3CN	0.1M TBAHP	11
$SCH_2CH_2OSiPh_2{}^tBu$							11
		CH_3CN[b)]	0.45	0.62	CH_3CN	0.2M TBAHP[e)]	12
SC(O)Ph	180	DCB[d)]					10
$SC_{16}H_{33}$							13
		DMF[b)]	0.51	0.69	DMF	0.1M TBAT	14
$-SCH_2S-$	154	CH_3CN[c)]	0.54	0.92	PhCN	0.025M TBAHP	9
$-S(CH_2)_2S-$	200	CH_3CN[c)]	0.55	0.97	PhCN	0.025M TBAHP	9
-SCH=CHS-	181	CH_3CN[c)]					9
	79	CH_3CN[c)]					9
		CH_3CN[c)]					9
$-S(CH_2)_3S-$	151	CH_3CN[c)]					9
$-SCH_2OCH_2S-$		CH_3CN[b)]	0.14	0.44	CH_3CN	[e)]	15
							27
$-SeCH_2Se-$	173	$CHCl_3$	0.49	0.87	PhCN	0.025M TBAHP	16, 17
$-Se(CH_2)_2Se-$	195	$CHCl_3$					17
$-Se(CH_2)_3Se-$	148	$CHCl_3$					17
$-Te(CH_2)_2Te-$		PhCN[b)]	0.36	0.72	PhCN	[e)]	18
							19
							19
	220	CH_3CN[c)]					20

CN	186-189 (dec.)	$CHCl_3$					2
Cl	103-106	CH_2Cl_2[b)]	0.7	0.97	CH_2Cl_2	0.01M TBAP[e)]	22
Br	129-130	CH_2Cl_2[b)]	0.65	0.95	CH_2Cl_2	0.01M TBAP[e)]	22

[a]Solvent for [1]HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for recrystallization. [e]V vs. Ag / AgCl.

(1) F. Wudl, A. A. Kruger, M. L. Kaplan, R. S. Hutton, *J. Org. Chem* ., **42**, 768 (1994).
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(8) G. C. Papavassiliou, V. C. Kakousssis, D. J. Lagouvardos, and G. A. Mousdis, *Mol. Cryst. Liq. Cryst* ., **181**, 171 (1990).
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(14) M. Hori, Y. Morita, and K. Nakasuji, *Abstracts of 74th Annual Meeting of the Chemical Society of Japan II,* 3D317 (1998).
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(19) J. Yamada, S. Tanaka, and H. Anzai, *Abstracts of 70th Annual Meeting of the Chemical Society of Japan II,* 3G405 (1996).
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(25) V. Khodorkovsky, A. Edžina, and O. Neilands, *J. mol. Electronics* , **5**, 33 (1989).
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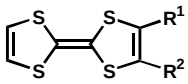
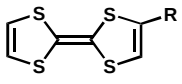


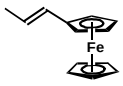
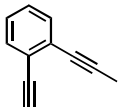
R^1	R^2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
$SCH=CH_2$	SCH_3		PhCN	0.53	0.81	PhCN	TBAP	1
$SCH=CH_2$	$S(CH_2)_3I$							1
$SCH=CH_2$	$S(CH_2)_4Br$							1
$SCH=CH_2$	$S(CH_2)_4I$							1
$SCH=CH_2$	$S(CH_2)_5I$							1

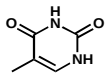
-SCH_2CH_2-	CH_2Cl_2	0.43	0.9	CH_2Cl_2	b)		2
	DMF	0.46	0.65	DMF	b)		2
	CH_3CN	0.37	0.71	CH_3CN	b)		2

[a]Solvent for CV. [b]V vs. Ag / AgCl.

(1) M. Iyoda, H. Suzuki, and U. Kux, *Tetrahedron. Lett*., **36**, 8259 (1995).
(2) C. Roviraa, E. Riberaa, J. Vecianaa, V.N. Laukhina, E. Molinsa, I. Mataa, S.S. Kasanovc, L.V. Zorinac, B.Zh. Narymbetovc, R.P. Shibaevac, and K. Wurstd, *Synth. Met.,* **103**, 2224 (1999).



R	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
CH_3		CCl_4	0.33	0.7		CH_3CN	0.1M TBAP	1
CHO	109-110	$CHCl_3$						2
COOH	>250	acetone						2
COCl	130-135	hexane[d)]						23
CH_2OH	70-72	$CHCl_3$						2
CH_2NH_2	oil	$CHCl_3$	0.29	0.67		CH_3CN	0.1M TBAHP	21
$CH_2NHC_4H_9$	oil	$CHCl_3$	0.29	0.68		CH_3CN	0.1M TBAHP	21
$CH_2NHC_{18}H_{37}$	53-55	$CHCl_3$	0.29	0.67		CH_3CN	0.1M TBAHP	21
$CH_2NHCH_2C_6H_5$	62-64	$CHCl_3$	0.29	0.67		CH_3CN	0.1M TBAHP	21
$CH_2NHC_6H_4CH_3^p$	85-97	$CHCl_3$	0.32	0.70		CH_3CN	0.1M TBAHP	21
C_2H_5		CCl_4	0.33	0.70		CH_3CN	0.1M TEAP	22
$CH=CH_2$	32	hexane[d)]	0.41	0.77		CH_3CN	TEAP	3
			0.42	0.65		DMF	0.1M TBAP	4
$CH=CHCH_2OH$								20
$CH=CHCOOCH_3$	139-140	$CHCl_3$						2
CH=CHCHO								20
$CH=CHCOOC_{16}H_{33}$	79-80	acetone						2
$CH=CH(CH_2)_9COOH$								19
$CH=C(COOCH_3)_2$	102	acetone						2
$CH=CHC_6H_4Cl^p$								18
		CH_3CN[b)]	0.26	0.44	0.77	CH_3CN	0.2M TBAHP	15
C≡CH	44-45	$CHCl_3$	0.51	0.71				4
$C≡CSiMe_3$	65-66	$CHCl_3$						4
C≡CCH=CHC≡CH			0.41	0.75		CH_3CN	0.1M TEAP	17
≡CCH=CHC≡C(CH2)3CI			0.41	0.76		CH_3CN	0.1M TEAP	17
			0.41	0.75		CH_3CN	0.1M TEAP	17
CH=CHCH=CHCHO	158	$CHCl_3$						5

CH_2OCH_3	oil	$CHCl_3$					2
$CH_2OC_{18}H_{37}$	41	$CHCl_3$					2
$CH_2OC(O)CH_3$	94-95	$CHCl_3$					2
$CH_2OC(O)C_{17}H_{35}$	56	$CHCl_3$					2
$CH(OH)C_{17}H_{35}$	31-33						6
CH_2OCOCF_3							18
$CH_2PPh_3^+$ $OCOCF_3^-$							18
$CH_2N(CH_3)_2$	78-80	$CHCl_3$	0.36	0.87	CH_2Cl_2	0.1M TBAHP	7
			0.30	0.69	CH_3CN	0.1M TBAHP	21
	110-112	$CHCl_3$	0.34	0.88	CH_2Cl_2	0.1M TBAHP	7
			0.30	0.68	CH_3CN	0.1M TBAHP	21
							16
$CH_2N(CH_3)CH_2C_6H_5$	68-70	$CHCl_3$	0.34	0.87	CH_2Cl_2	0.1M TBAHP	7
CN	186-189 (dec.)	$CHCl_3$					8
Cl		$CHCl_3$	0.56	0.78	CH_2Cl_2	0.1M TBAP[e)]	9
Br	40-45	CS_2-$CHCl_3$	0.55	0.76	CH_2Cl_2	0.1M TBAP[e)]	9, 10
I	66-68	hexane[d)]	0.45	0.83		0.1M TBAP[e)]	11, 12
NCO	75-78	benzene-hexane[d)]					23
$NHCOOC_6H_4NO_2^p$	154-155	benzene-hexane[d)]					23
$Si(CH_3)_3$	oil						6
$Si(CH_3)_2C_{18}H_{37}$	39-42						6
$Si(CH_3)_2(CH_2)_2C_4F_9$							13
PPh_2	41-43	$CHCl_3$	0.38	0.74	CH_3CN	0.1M TBAHP	
$SnBu_3$							14
$SnMe_3$							14

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for recrystallization. [e]V vs. Ag / AgCl.

(1) D. C. Green, *J. Org. Chem*., **44**, 1476 (1979).
(2) J. Garrín, J. Orduna, S. Uriel, A. J. Moore, M. R. Bryce, S. Wegener, D. S. Yufit, and J. A. K. Howard, *Synthesis*, 489 (1994).
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(14) M. Iyoda, Y. Kuwatani, N. Ueno, and M. Oda, *J. Chem. Soc., Chem. Commun*., 158 (1992).
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(16) S. Maki, Y. Morita, and K. Nkasuji, *Abstracts of 76th Annual Meeting of the Chemical Society of Japan II*, 3 PA 152 (1999).

(17) T. Fukushima, H. Fujioka, O. Goto, and T. Miyashi, *Abstracts of 76th Annual Meeting of the Chemical Society of Japan II*, 3 PA 152 (1999).
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(20) R. Andreu, J. Garín, J. Orduna, M. Savirón, and S. Uriel, *Tetrahedron Lett.,* **36**, 4319 (1995).
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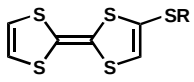

R	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	oil	$CHCl_3$	0.42	0.80	CH_2Cl_2	0.1M TBAHP [f)]	1
$C_{18}H_{37}$	55-56	hexane[e)]	0.50	0.88		[f)]	2, 3, 5, 7
$(CH_2)_3SH$		$CHCl_3$ [a)]					9
$(CH_2)_3I$	oil	$CHCl_3$	0.46	0.86	CH_2Cl_2	0.1M TBAHP [f)]	1
$(CH_2)_4I$	oil	$CHCl_3$	0.44	0.81	CH_2Cl_2	0.1M TBAHP [f)]	1
CH_2CH_2OH	101-102	CH_2Cl_2-hexane[d)]	0.41	0.81	CH_2Cl_2	0.1M TBAHP [f)]	1, 4
C(O)Ph							4
	oil	$CHCl_3$					5
$CH=CH_2$	oil	$CHCl_3$	0.45	0.92	CH_2Cl_2	0.1M TBAHP [f)]	6
$CH_2CH_2OCOCH=CH_2$	oil	$CHCl_3$	0.43	0.83	CH_2Cl_2	0.1M TBAHP [f)]	5, 6
$CH_2CH_2OCOC(CH_3)=CH_2$	oil	$CHCl_3$	0.43	0.89	CH_2Cl_2	0.1M TBAHP [f)]	5, 6
$CH_2CH_2OCONHPh$	86-88	$CHCl_3$					5
$CH_2CH_2OCONH(CH_2)_2Cl$	74-77	$CHCl_3$					5
$CH_2CH_2OC_{18}H_{37}$	oil	toluene-C_6H_{12} [d)]	0.49	0.87		[f)]	5, 7
$CH_2CH_2OC(O)C_{15}H_{31}$	wax	$C_{15}H_{31}COCl$[d)]	0.48	0.9		[f)]	5, 7
$CH_2O(CH_2)_2SiMe_3$	oil	$CHCl_3$					5
$CH_2CH_2OSO_2CH_3$	oil	$CHCl_3$					5
$C(O)C_{15}H_{31}$	79-83		0.52	0.90		[f)]	7
$(CH_2)OC_{18}H_{37}$	oil		0.49	0.87		[f)]	7
$(CH_2)OC(O)C_{15}H_{31}$	wax		0.48	0.90		[f)]	7
CH_2CH_2OH							7
CH_2CH_2Cl	oil	$CHCl_3$					5
$CH_2CH_2SCH_3$	oil	$CHCl_3$					5
CH_2CH_2SPh	71-73	$CHCl_3$					5
$CH_2CH_2NH_2$	oil	$CHCl_3$					5
$CH_2CH_2NHC(O)CH_3$	54-55	$CHCl_3$					5
$CH_2CH_2N_3$		$CHCl_3$					5
p-C_6H_4OH		DMF[b)]	0.51	0.69	DMF	0.1M TBAT	8

[a]Solvent for ^{1}H-NMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for recrystallization. [e]Solvent for chromatography. [f]V vs. Ag / AgCl.

(1) M. R. Bryce, G. J. Marshallsay, and A. J. Moore, *J. Org. Chem*., **57**, 4859 (1992).
(2) M. R. Bryce, G. Cooke, A. S. Dhindsa, D. Lorcy, A. J. Moore, M. C. Petty, M. B. Hursthouse, and A. I. Karaulov, *J. Chem. Soc., Chem. Commun*., 816 (1990).
(3) A. S. Dhindsa, G. Cooke, K. Lerstrup, K. Bechgaard, M. R. Bryce, and M. C. Petty, *Chem. Mater*., **4**, 720 (1992).
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(8) M. Hori, Y. Morita, and K. Nakasuji, *Abstracts of 74th Annual Meeting of the Chemical Society of Japan II*, 3D317 (1998).
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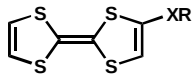

R	X	mp/℃	solubility[a)]	E_1	E_2	CV (vs. Ag / AgCl)	reference
CH_3	Se	oil	$CHCl_3$				1
C_6H_{13}	Se						1
$C_{18}H_{37}$	Se	52					1, 2, 3
CH_2OH	Se	oil	$CHCl_3$				1
CH_2CH_2OH	Se	oil	$CHCl_3$				1
C_6H_5	Se	98	$CHCl_3$				4
$CH_2O(CH_2)SiCH_3$	Se	oil	$CHCl_3$				1
CH_3	Te	183-184	$CHCl_3$				6
$C_{18}H_{37}$	Te	50					2, 3
Ph	Te	100.6-101.1	[b)]	0.42	0.84	PhCN 0.1M TBAT	5

[a]Solvent for ^{1}HNMR. [b]CS_2-petroleum ether, 1:1.

(1) A. J. Moore, M. R. Bryce, G. Cooke, G. J. Marshallsay, P. J. Skabara, A. S. Batsanov, Judith. A, K. Howard, and S. T. A. K. Daley, *J. Chem. Soc. Perkin Trans*. *1*, 1403 (1993).
(2) M. R. Bryce, G. Cooke, A. S. Dhindsa, D. Lorcy, A. J. Moore, M. C. Petty, M. B. Hursthouse, and A. I. Karaulov, *J. Chem. Soc., Chem. Commun*., 816 (1990).
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(4) J. Besancon, J. Padiou, and J. Szymoniak, *C. R. Acad. Sci. Paris, Ser. II*, **313**, 1395 (1991).
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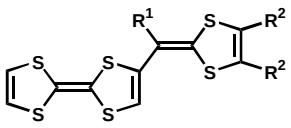
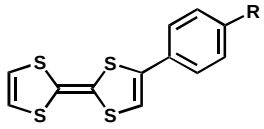


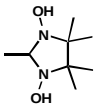
R^1	R^2	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
H	H		toluene-hexane[b)]				1
H	CH_3		toluene-hexane[b)]				1

H	SCH_3		toluene-hexane[b)]	1
H	$-S(CH_2)_2S-$		toluene-hexane[b)]	1
CH_3	H		toluene-hexane[b)]	1
CH_3	CH_3		toluene-hexane[b)]	1
CH_3	SCH_3		toluene-hexane[b)]	1
CH_3	$-S(CH_2)_2S-$	174-176	$CHCl_3$	1
CHO	SCH_3		CH_2Cl_2	1
CHO	$-S(CH_2)_2S-$	234-237	CH_2Cl_2	1

[a]Solvent for ^{1}HNMR. [b]Solvent for chromatography.

(1) M. Sallé, A. J. Moore, M. R. Bryce, and M. Jubault, *Tetrahedron. Lett*., **34**, 3475 (1993).



R	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
H	79.5-81	PhCN[b)]	0.38	0.8	C_6H_5CN	0.1M TBAP[d)]	1
$CH=CH_2$	100-104	CS_2			CH_3CN	0.1M TBAT	2
CN	210.5-213	PhCN[b)]	0.47	0.87	C_6H_5CN	0.1M TBAP[d)]	1
OCH_3	160-162	PhCN[b)]	0.38	0.8	C_6H_5CN	0.1M TBAP[d)]	1
CH_2CH_2Br	128-133	cyclehexane[c)]					2
OH	122-124	EtOH-H_2O[c)]					3
CHO		$CHCl_3$					4
		DMSO					4
$OC(O)CH_3$	125-127	CH_3CN[c)]					3
$OC(O)C(CH_3)=CH_2$	85-86	DMSO					3

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for recrystallization. [d]V vs. Ag / AgCl.

(1) M. Iyoda, Y. Kuwatani, N. Ueno, and M. Oda, *J. Chem. Soc., Chem. Commun*., 158 (1992).
(2) M. L. Kaplan, R. C. Haddon, F. Wudl, and E. D. Feit, *J. Org. Chem.*, **43**, 4642 (1978).
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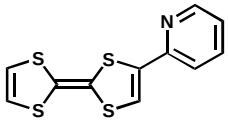

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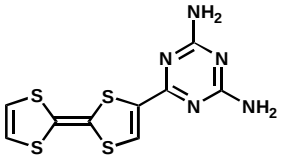


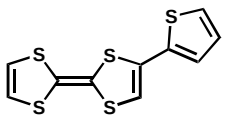
2

	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference

1	173-175	PhCN[b)]	0.39	0.85	C_6H_5CN	0.1M TBAP[c)]	1
2	>230	acetone					2

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]V vs. Ag / AgCl.

(1) M. Iyoda, Y. Kuwatani, N. Ueno, and M. Oda, *J. Chem. Soc., Chem. Commun* ., 158 (1992).
(2) G. Cook, A. K. Powell, and S. L. Heath, *Synthesis* , 1411 (1995).



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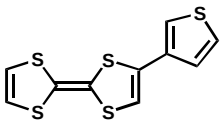
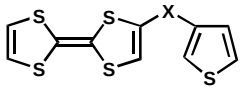


2

	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
1	79-80	PhCN[b)]	0.41	0.8	C_6H_5CN	0.1M TBAP[c)]	1
2	95-97	$CHCl_3$	0.42	0.79	CH_3CN	0.1M TBAHP[c)]	2

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]V vs. Ag / AgCl.

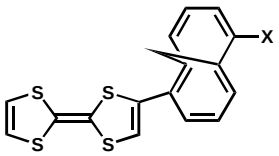
(1) M. Iyoda, Y. Kuwatani, N. Ueno, and M. Oda, *J. Chem. Soc., Chem. Commun* ., 158 (1992).
(2) P. J. Skabara, K. Müllen, M. R. Bryce, J. A. K. Howark, and A. S. Batsanov, *J. Mater. Chem* ., **8**, 1719 (1998).



X	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
$-CH_2O(CH_2)_8-$	oil	$CHCl_3$	0.34	0.71	CH_3CN	0.1M TBAHP	1
$-CO_2(CH_2)_2O-$	92-93						2
$-CO_2(CH_2)_2-$	84-85						2
$-Se(CH_2)_2-$							2

[a]Solvent for ^{1}HNMR.

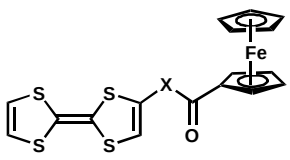
(1) C. Thobie-Gautier, A. Gorgues, M. Jubault, and J. Roncali, *Macromolecules* , **26**, 4094 (1993).
(2) M. R. Bryce, A. D. Chissel, J. Gopal, P. Kathirgamanathan, and D. Parker, *Synth. Met.,* **39**, 397 (1991).



X	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
H		PhCN	0.39	0.78	PhCN	0.1M TBAP	1
Br		PhCN	0.38	0.77	PhCN	0.1M TBAP	1

[a]Solvent for CV.

(1) U. Kux, and M. Iyoda, *Synth. Met*., **70**, 1173 (1995).



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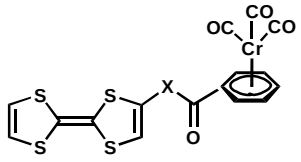
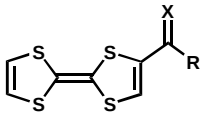


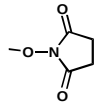
2

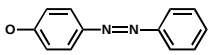
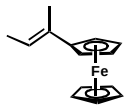
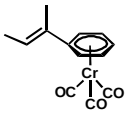
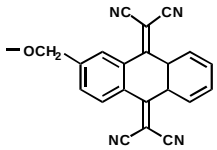
	X	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
1	-CH_2-		CH_3CN	0.38	0.73		CH_3CN	0.2M TBAHP	1
	S		CH_3CN	0.45	0.73		CH_3CN	0.2M TBAHP	1
	-$C(CH_3)$=CH-	175	$CHCl_3$[b)]						3
	-SCH_2CH_2O-		CH_3CN	0.35	0.61		CH_3CN	0.2M TBAHP	1
	-CH=$CHCH_2O$-		CH_2Cl_2	0.46	0.73	0.88	CH_2Cl_2	0.1M TBAHP	2
2	-$C(CH_3)$=CH-	174	$CHCl_3$[b)]						3

[a]Solvent for CV. [b]Solvent for ^{1}HNMR.

(1) A. J. Moore, P. J. Skabara, M. R. Bryce, A. S. Batsanov, J. A. K. Howard, and S. T. A. K. Daley, *J. Chem. Soc., Chem. Commun*., 417 (1993).
(2) R. Andreu, J. Garín, J. Orduna, M. Savirón, and S. Uriel, *Tetrahedron Lett.,* **36**, 4319 (1995).
(3) J. Besancon, A. Radecki-Sudre, and J. Szymoniak, *J. Organometallic Chem.,* **429**, 335 (1992).



R	X	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
OCH_3	O	88-89	$CHCl_3$						8
OC_2H_5	O	79-80	CCl_4	0.47	0.83		CH_3CN	0.2M TEAP	1
OC_4H_9	O			0.51	0.86			0.1M TBAP	2, 3
OC_6H_{13}	O	61-64							4
OC_8H_{17}	O	60-62							4
$OC_8H_{16}SH$	O	wax	acetone						16
$OC_{11}H_{22}SH$	O	oil	acetone						16
$OC_{12}H_{24}SH$	O	35-44	hexane-EtOH[d)]						16
$OC_{16}H_{33}$	O	71-72							4
$OC_{16}H_{32}SH$	O	37-40	acetone						16
$OC_{16}H_{32}Br$	O	57-58	acetone						16
$OCH_2CH=CH_2$	O	77-78	CH_3CN[c)]						14
$OCH_2C_6H_5$	O	77-79	CH_3CN[c)]						14
	O	172.5-173.5	benzene[d)]						17

	O	148	CH_2Cl_2						12
CH_3	O	152-153		0.47	0.83		CH_3CN	0.1M TBAP	15
$C_{13}H_{27}$	O	80-81							18
$C_{15}H_{31}$	O	81		0.52	0.9			e)	4, 5
$C_{17}H_{35}$	O	85							4, 6
$(CH_2)_2CH_2Br$	O	205							4
$(CH_2)_4CH_2Br$	O	114							4
$(CF_2)_6CF_3$	O	155-158							4
	O			0.38	0.73	0.88	CH_3CN	0.2M TABHP[e)]	20
NH_2	O	166-168 (dec.)	acetone						7
$NHC_{18}H_{37}$	O	96-99							18
$NH(CH_2)_2Ph$	O	114.5-115.5	benzene[d)]						17
NHPh	O	147-155							18
NMe_2	O	162-163	$CHCl_3$						19
	O	149.5-151	benzene[d)]						17
$CH=C(CH_3)Ph$	O	150							13
	O	75	$CHCl_3$						13
	O	204	$CHCl_3$						13
	O		$CHCl_3$	0.52	0.94		CH_3CN	TBAP	8
$OC_{16}H_{33}$	S	78-80		0.49	0.86		DMF	e)	4, 9
$O(CH_2)_4Cl$	S								11
$C_{17}H_{35}$	S	71-76							4
$NHCH_3$	S	188-190	CH_2Cl_2[b)]	0.43	0.98		CH_2Cl_2	0.01M TBAP	10
$NHC_{18}H_{37}$	S			0.43	1.00			e)	11
NHPh	S	169-172	CH_2Cl_2[d)]						18

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for recrystallization. [e]V vs. Ag / AgCl.

(1) D. C. Green, *J. Chem. Soc., Chem. Commun*., 161 (1977).
(2) V. Khodorkovsky, A. Edžifna, and O. Neilands, *J. Mol. Electronics*, **5**, 33 (1989).
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(5) A. S. Dhindsa, M. R. Bryce, J. P. Lloyd, and M. C. Petty, *Synth. Met*., **27**, B 563 (1988).
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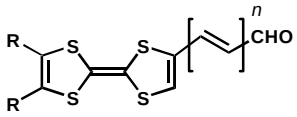

n	R	mp/℃	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
0	CHO	109-110	$CHCl_3$	0.6	1.03	CH_2Cl_2	0.1M TBAP	3, 4
1	H	121-122	hexane-Et_2O	0.53	0.82	CH_2Cl_2	0.1M TBAP	1, 3
	-$S(CH_2)_2S$-	159-160(dec.)	CH_2Cl_2-hexane	0.59	0.91	CH_2Cl_2	0.1M TBAP	1
	SC_6H_{13}	75	$CHCl_3$					2
	$SC_{12}H_{25}$	88	$CHCl_3$					2
2	H		$CHCl_3$					2

[a]Solvent for chromatography.

(1) A. I. de Lucas, N. Marítn, L. Sánchez, C. Seoane, R. Andreu, J. Garin, J. Orduna, R. Alcalá, and B. Villacampa, *Tetrahedron*, **54**, 4655 (1998).
(2) M. González, N. Martín, J. L. Segura, J. Garín, and J. Orduna, *Tetrahedron Lett.,* **39**, 3269 (1998).
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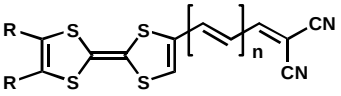
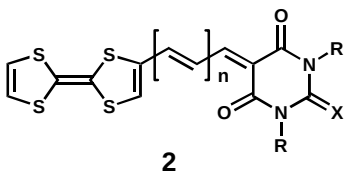
(4) R. Andreu, A. I. de Lucas, J. Garrín, N. Martín, J. Orduna, L. Sánchez, C. Seoane, *Synth. Met*., **86**, 1817 (1997).



1



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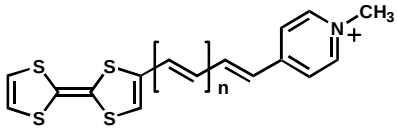

3

	n	R	mp/℃	solubility	E_1	E_2	E_3	CV (vs. SCE)		reference
1	0			EtOAc-hexane [b)]	0.69	0.97	-0.9	CH_2Cl_2	0.1M TBAP	5, 6
	1	H	205-206 (dec.)	EtOAc-hexane [b)]	0.54	0.84				2

	2	H	158	DMSO							1
	1	$-S(CH_2)_2S-$	223 (dec.)	EtOAc-hexane [b)]	0.59	0.90		CH_2Cl_2	0.1M	TBAP[c)]	2
2	0	H (X = O)			0.55	0.8	-0.8	DMF	0.1M	TBAP[c)]	3
		CH_3 (X = O)			0.58	0.92	-0.8	CH_2Cl_2	0.1M	TBAP[c)]	3
		C_2H_5 (X = S)			0.6	0.97	-0.6	CH_2Cl_2	0.1M	TBAP[c)]	3
	1	H (X = O)			0.61	0.82	-0.7	DMF	0.1M	TBAP[c)]	3
		CH_3 (X = O)			0.59	0.97	-0.7	CH_2Cl_2	0.1M	TBAP[c)]	3
		C_2H_5 (X = S)			0.60	1.00	-0.6	CH_2Cl_2	0.1M	TBAP[c)]	3
	2	C_2H_5 (X = S)			0.56	0.90	-0.5	CH_2Cl_2	0.1M	TBAP[c)]	3
3	0										4
	1										4

[a]Solvent for ^{1}HNMR. [b]Solvent for chromatography. [c]V vs. Ag / AgCl.

(1) M. González, N. Martín, J. L. Segura, J. Garín, and J. Orduna, *Tetrahedron Lett.*, **39**, 3269 (1998).
(2) A. I. de Lucas, N. Marítn, L. Sánchez, C. Seoane, R. Andreu, J. Garín, J. Orduna, R. Alcalá, and B. Villacampa, *Tetrahedron* , **54**, 4655 (1998).
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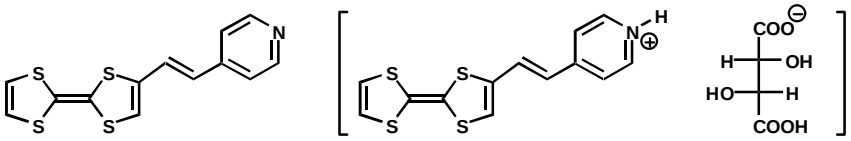
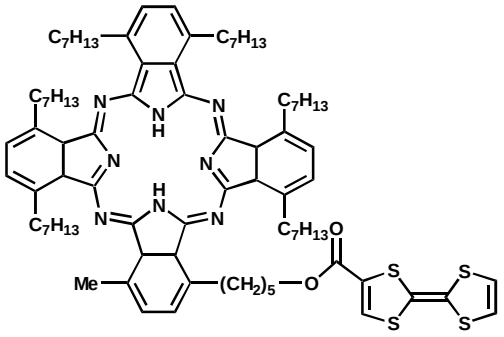


1 **2**

	mp/℃	solubility	E_1	E_2	E_3	CV (vs. SCE)		reference
1			0.441	0.804		CH_3CN	0.1M TBAHP	1
2			0.504	0.854	-0.81	CH_3CN	0.1M TBAHP	1

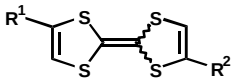
(1) R. Andreu, I. Malfant, P.G. Lacroix, P. Cassoux, *Synth. Met* ., **102**, 1575 (1999).



mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
	CH_2Cl_2	0.57	0.73	0.99	CH_2Cl	0.1M TBAP	1

[a]Solvent for CV.

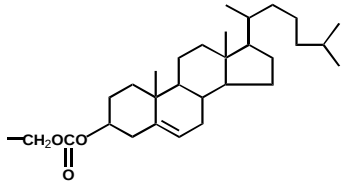
(1) M. J. Cook, G. Cooke, and A. J. Fini, *Chem. Commun.* , 1925 (1996).



R1	R2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
CH_3	CO_2H	164					1
CH_3	CO_2Me	92-94					1
CH_3	CO_2Et	67-70	iso-octane[b)]	0.45	0.81		2
CO_2H	CO_2Me	224-225 (dec.)	CH_3CN				3
CO_2H	$CO_2CH_2CH=CH_2$	196-198 (dec.)	CH_3CN				3
CO_2H	CO_2CH_2Ph	196-198 (dec.)	CH_3CN				3
CO_2H	CO_2Bu^n (*trans*)	184-186 (dec.)	CH_3CN				3
CO_2H	CO_2Bu^n (*cis*)	192-194 (dec.)	CH_3CN				3
CO_2H	$C(O)N(C_{18}H_{37})_2$	70	$CHCl_3$[c)]				4
CH_2OH	**a***	150 (dec.)	$CHCl_3$[c)]				5

[a]Solvent for UV. [b]Solvent for recrystallization. [c]Solvent for chromatography.

a* =



(1) H. Mora, J. M. Fabre, L. Giral, and C. Montginoul, *Bull. Soc. Chim. Belg.,* **101**, 741 (1992).
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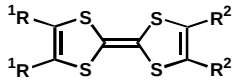
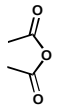
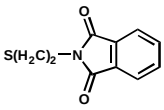
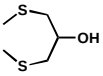


R^1	R^2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	COOH	140 (dec.)						13
CH_3		138-140						13
CH_3	$COOCH_3$		CH_3CN[b)]	0.55	0.88	CH_3CN	0.1M TBAP	1
CH_3	$C_{17}H_{35}$	80-81	CH_3CN[e)]					10
CH_3								15
CH_3	SCH_3		benzene-hexane[d)]	0.40	0.70	CH_3CN	0.2M TEAB	12
CH_3	$S(CH_2)_2OH$			c)		CH_2Cl_2	0.1M TBAHP	8
CH_3	$S(CH_2)_2CN$			c)		CH_2Cl_2	0.1M TBAHP	8
CH_3		165	CH_2Cl_2-hexane [d)]					9
	$S(CH_2)_2NH_2$	94-96	CH_2Cl_2-EtOAc [d)]					9
CH_3	$S(CH_2)_2OSO_2Me$	129-130	CH_2Cl_2-EtOAc [d)]					9
CH_3	$-O(CH_2)_2S-$		$CHCl_3$	-0.12	0.37	CH_2Cl_2	0.15M TBAHP	2
CH_3	C_6H_5		CH_3CN[b)]	0.39	0.73	CH_3CN	0.1M TBAP	1
CH_3	CN	230	$CHCl_3$					14
CH_3	$P(C_6H_5)_2$	162-163	$CHCl_3$	0.34	0.72	CH_3CN	0.1M TBAHP	3, 11
CH_3								7
CH_3		220-222	DCE[b)]	0.51	0.96	DCE	0.1M TBAHP [a)]	4
CH_3		207-210						4
CH_3	$-(CH_2)_3-$	232	CS_2					6
CH_3	$-(CH_2)_4-$	194	CS_2					6
$-(CH_2)_3-$	$-(CH_2)_4-$	217	acetone	0.34	0.83	TCE	0.1M TBAP	5, 6
$-(CH_2)_3-$								15
$-(CH_2)_4-$	$-O(CH_2)_2S-$		$CHCl_3$	-0.11	0.39	CH_2Cl_2	0.15M TBAHP	2
								15

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]0.44V < E1 < 0.59V and 0.78V < E2 < 0.92V. [d]Solvent for chromatography. [e]Solvent for UV.

(1) V. Khodorkovsky, A. Edžifna, and O. Neilands, *J. Mol. Electronics*, **5**, 33 (1989).
(2) J. Hellerg, M. Moge, H. Schmitt, and J-U. von Schütz, *J. Mater. Chem*., **5**, 1549 (1995).
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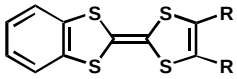
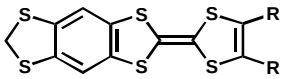


R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	200	$CHCl_3$	0.50	0.96	CH_3CN	0.1M TBAP	1, 2
$COOCH_3$	173-174	CH_3CN[c)]					8, 9
-$(CH_2)_3$-	197	$CHCl_3$	0.53	0.98	TCE	0.1M TBAP	1, 2
-$(CH_2)_4$-	208	$CHCl_3$	0.53	1.00	TCE	0.1M TBAP	1, 2
	207-210	pyridine-H_2O[e)]					10, 11
							11
SC(O)Ph	187	$CHCl_3$					3
-O(CH2)2S-		CS_2-$CHCl_3$	0.06	0.53	CH_2Cl_2	0.15M TBAHP	4
SCH_3		TCE[d)]	0.55	0.83	TCE	0.2M TEAT	5
-$S(CH_2)_2S$-	272	CH_2Cl_2[b)]	0.57	0.87	TCE	0.2M TEAT	5, 6
-N=CH-CH=N-	242	CH_3CN[c)]					7

[a]Solvent for ^{1}HNMR. [b]Solvent for chromatography. [c]Solvent for UV. [d]Solvent for CV.

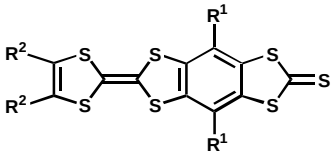
(1) J. M. Fabre, A. K. Gouasmia, L. Giral, and D. Chasseau, *Tetrahedron Lett*., **29**, 2185 (1988).
(2) J. M. Fabre, A. K. Gouasmia, L. Giral, and D. Chasseau, *New J. Chem*., **12**, 119 (1988).
(3) T. K. Hansen, M. R. Bryce, J. A. K. Howard, and D. S. Yufit, *J. Org. Chem.,* **59**, 5324 (1994).
(4) J. Hellerg, M. Moge, H. Schmitt, and J-U. von Schütz, *J. Mater. Chem*., **5**, 1549 (1995).
(5) J. P. Morand, L. Brzezinski,and C. Manigand, *J. Chem. Soc., Chem. Commun*., 1050 (1986).
(6) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *Chem. Scr*., **27**, 265 (1987).
(7) G. C. Papavassiliou, V. Gionis, S. Y. Yiannopoulos, J. S. Zambounis, G. A. Mousdis, K. Kobayashi, and K. Umemoto, *Mol. Cryst. Liq. Cryst*., **156**, 277 (1988).
(8) H. K. Spencer, M. P. Cava, and A. F. Garito, *J. Chem. Soc., Chem. Commun.,* 966 (1976).
(9) M. Mizuno, and M. P. Cava, *J. Org. Chem.,* **43**, 416 (1978).
(10) G. S. Bajwa, K. D. Berlin, and H. A. Pohl, *J. Org. Chem.,* **41**, 145 (1976).
(11) C. M. Lindsay, K. Smith, C. A. Brown, and K. Betterton-Cruz, *Tetrahedron Lett.,* **25**, 995 (1984).



R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
CH_3	>300	THF	0.40	0.83	THF	0.1M TBAHP	1
$-(CH_2)_3-$	>300	THF	0.41	0.83	THF	0.1M TBAHP	1
$-S(CH_2)_2S-$	>300	THF	0.51	0.88	THF	0.1M TBAHP	1

[a]Solvent for CV.

(1) F. C. Krebs, J. Larsen, K. Boubekeur, and M. Fourmigue, *Acta Chem. Scand.*, **47**, 910 (1993).



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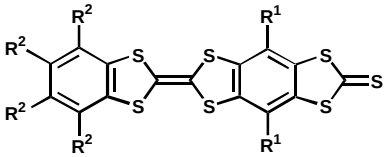
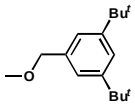
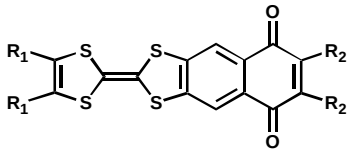


2

	R^1	R^2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
1	$SC_5H_{11}{}^i$	SC_6H_{13}	158-160	CH_2Cl_2-MeOH				4
	OC_6H_{13}	SC_4H_9	41	acetone				4
	OC_6H_{13}	$-S(CH_2)_2S-$	140	CH_2Cl_2-PE[b)]				4
2	OEt	H	273					1, 2
	OC_6H_{13}	H						2
		H						3
	$SC_5H_{11}{}^i$	SC_2H_5	251-252	CH_2Cl_2-MeOH				4

[a]Solvent for recrystallization. [b]PE = petroleum ether.

(1) P. Wolf, Diss. Mainz University 1988.
(2) M. Adam, P. Wolf, H. J. Räder, and K. Müllen, *J. Chem. Soc., Chem. Commun*., 1624 (1990).
(3) P. Wolf, H. Naarmann, and K. Müllen, *Angew. Chem Int. Ed. Engl*., **27**, 288 (1988).
(4) M. Adam, E. Fanghänel, K. Müllen, Y. J. Shen, and R. Wegner, *Synth. Met*., **66**, 275 (1994).

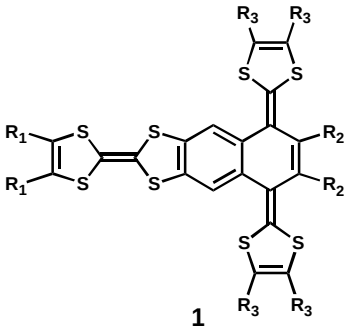


R_1	R_2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
SCH_3	H		$CHCl_3$				1
SC_6H_{13}	H		$CHCl_3$				1

SCH_3		$CHCl_3$	-0.65	CH_2Cl_2	0.1M TBAHP	1
SC_6H_{13}	-(CH=CH)$_2$-	$CHCl_3$				1

[a]Solvent for ^{1}HNMR.

(1) N. Gautier, N. Mercier, A. Riou, A. Gorgues, and P. Hudhomme, *Tetrahedron. Lett*., **40**, 5997 (1996).



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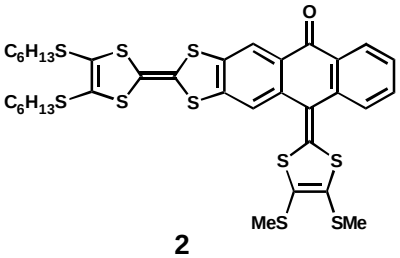
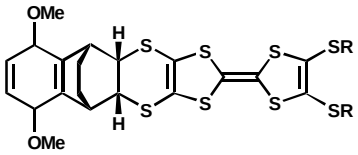


2

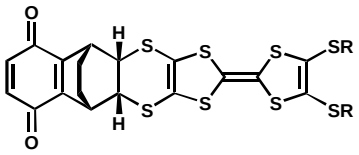
	R_1	R_2	R_3	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)	reference
1	SCH_3		SCH_3							1
	SCH_3	H	SCH_3		*o*-DCB	0.27	0.71	1.12	CH_2Cl_2 0.1M TBAHP[c)]	1
					o-DCB	0.39	0.76	1.15	*o*-DCE 0.1M TBAHP[c)]	1
	SCH_3		-SCH_2CH_2S		$CHCl_3$					2
	SCH_3		SC_6H_{13}		$CHCl_3$					2
	SCH_3	H	-SCH_2CH_2S		$CHCl_3$					2
	SCH_3	H	SC_6H_{13}		$CHCl_3$					2
	SC_6H_{13}	-(CH=CH)$_2$-	SCH_3		$CHCl_3$					2
2					$CHCl_3$					2

[a]Solvent for ^{1}HNMR.

(1) C. Boulle, O. Desmars, N. Gautier, P. Hudhomme, M. Cariou, and A. Gorgues, *Chem. Commun*., 2197 (1998).
(2) N. Gautier, N. Mercier, A. Riou, A. Gorgues, and P. Hudhomme, *Tetrahedron. Lett*., **40**, 5997 (1999).



1

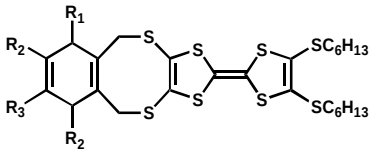


2

	R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. Ag / AgCl)		reference
1	Me							1
	$C_{10}H_{21}$							1
2	Me		CH_3CN-CH_2Cl_2	0.55	0.83	CH_3CN-CH_2Cl_2[b)]	0.1M TBAP	1
	$C_{10}H_{21}$							1

[a]Solvent for CV. [b]2:1, v/v.

(1) E. Tsiperman, T. Regev, J. Y. Becker, J. Bernstein, A. Ellern, V. Khodorkovsky, A. Shames, and L. Shapiro *Chem. Commun*., 1125 (1999).



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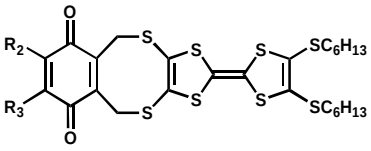


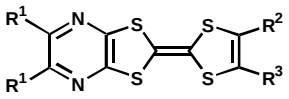
2

	R_1	R_2	R_3	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
1	OMe	H	H	130	$CHCl_3$	0.53	0.84	1.61	CH_2Cl_2	0.1M TBAP	1, 2
	OMe	Br	Br	154	$CHCl_3$	0.57	0.85		CH_2Cl_2	0.1M TBAP	2
	OMe	-(CH=CH)$_2$-		108	$CHCl_3$	0.55	0.86	1.43	CH_2Cl_2	0.1M TBAP	2
	OH	H	H	140	$CHCl_3$	0.48	0.74	1.420	CH_2Cl_2	0.1M TBAP	1, 2
	OH	Br	Br	170	$CHCl_3$	0.53	0.85		CH_2Cl_2	0.1M TBAP	2
1*	OH	-(CH=CH)$_2$-									2
2		H	H	60	$CHCl_3$	0.6	0.860		CH_2Cl_2	0.1M TBAP	1, 2
		Br	Br	110	$CHCl_3$						2
		-(CH=CH)$_2$-		96	$CHCl_3$	0.6	0.87		CH_2Cl_2	0.1M TBAP	2

[a]Solvent for ^{1}H-NMR.

1* : This compund could not be isolated.

(1) J. L. Segura, N. Martín, C. Seoane, and M. Hanack, *Tetrahedron. Lett*., **37**, 2503 (1996).
(2) M. Gunzález, B. Illescas, N. Martin, J. L. Segura, C. Seoane, and M. Hanack, *Tetrahedron*, **54**, 2853 (1998).



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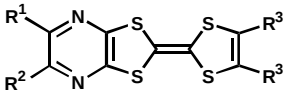

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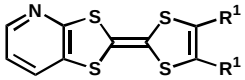


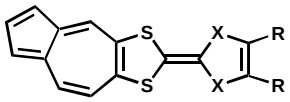
3

	R^1	R^2	R^3	mp/°C	solubility[a)]	E_1	E_2	CV	(vs. SCE)	reference
1	H	CH_3		249	CH_3CN[d)]	0.63	1.02	CH_3CN	0.1M TEAP	1
	H	CO_2CH_3	CO_2CH_3							1
	H	I	I							2
	H	I	H							2
	H	SCH_3	SCH_3	169	CH_2Cl_2[b)]					3
	H	-SCH_2S-		218	CH_2Cl_2[b)]	0.68	1.07	CH_3CN	0.1M TEAP	1, 3
	H	-S(CH$_2$)$_2$S-		209	CH_3CN[c)]	0.68	1.02	CH_3CN	0.1M TEAP	3, 4
	H	-S(CH$_2$)$_3$S-		222	CH_2Cl_2[b)]					3
	H	-O(CH$_2$)$_2$O-		209	CH_3CN[d)]	0.70	1.19	PhCN	0.025M TBAHP	6
	CH_3	I	I							2
	CH_3	I	H							2
	CH_3	CH_3	CH_3	290	CH_3CN[d)]					1

	CH_3	SCH_3	SCH_3	195	CH_2Cl_2[b)]					3
	CH_3	$-SCH_2S-$		208	CH_2Cl_2[b)]					3
	CH_3	$-S(CH_2)_2S-$		243	CH_2Cl_2[b)]	0.69	1.05	CH_3CN	0.1M TEAP	1, 3
	CH_3	$-S(CH_2)_3S-$		261	CH_2Cl_2[b)]					3
	CH_3	$-O(CH_2)_2O-$		>280	CH_3CN[d)]					7
	Cl	CH_3	CH_3	100 (dec.)	cyclehexane	0.66	1.12	CH_2Cl_2	0.1M TBAHP	8
	$-(CH=CH)_2-$	$-S(CH_2)_2S-$		272	CH_2Cl_2[b)]					3
2	Cl	SCH_3	CH_3	242-243 (dec.	cyclehexane					8
3	$-O(CH_2)_2O-$			206	CH_3CN[d)]					5

[a]Solvent for ^{1}HNMR. [b]Solvent for chromatography. [c]Solvent for CV. [d]Solvent for UV.

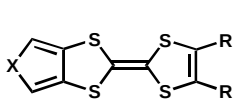
(1) G. C. Papavassiliou, V. Gionis, S. Y. Yiannopoulos, J. S. Zambounis, G. A. Mousdis, K. Kobayashi, and K. Umemoto, *Mol. Cryst. Liq. Cryst.*, **156**, 277 (1988).
(2) T. Maruyama, T. Imakubo, and K. Kobayashi, *Abstracts of 72nd Annual Meeting of the Chemical Society of Japan II*, 4H427 (1997).
(3) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *Chem. Scr*., **27**, 265 (1987).
(4) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *J. Chem. Soc., Chem. Commun*., 820 (1986).
(5) G. C. Papavassiliou, D. J. Lagouvardos, V. C. Kakoussis, and G. A. Mousdis, *Z. Naturforsch. B,* **45**, 1216 (1990).
(6) G. C. Papavassiliou, *Synth. Met.*, **42**, 2535 (1991).
(7) G. C. Papavassiliou, V. C. Kakousssis, D. J. Lagouvardos, and G. A. Mousdis, *Mol. Cryst. Liq. Cryst.*, **181**, 171 (1990).
(8) K. Lahlil, A. Moradpour, C. Merienne, and C. Bowlas, *J. Org. Chem.*, **59**, 8030 (1994).



R	X	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
$-SCH_2S-$	S	>300	CS_2-$CHCl_3$	0.15	0.44	PhCN	0.1M TBAP	1
$-S(CH_2)_2S-$	S	>300	CS_2-$CHCl_3$	0.17	0.49	PhCN	0.1M TBAP	1
$-Se(CH_2)_2Se-$	S	286-289	CS_2-$CHCl_3$	0.16	0.47	PhCN	0.1M TBAP	1
I	S	>300	CS_2-$CHCl_3$	0.24	0.68	PhCN	0.1M TBAP	1
	S	268-272	CS_2-$CHCl_3$	0.44	0.84	PhCN	0.1M TBAP	1
$-S(CH_2)_2S-$	Se	225-228	CS_2-$CHCl_3$	0.24	0.53	PhCN	0.1M TBAP	1

[a]Solvent for ^{1}HNMR.

(1) H. M. Yamamoto, J. Yamaura, and R. Kato, *J. Mater. Chem*., **8**, 289 (1998).



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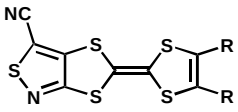


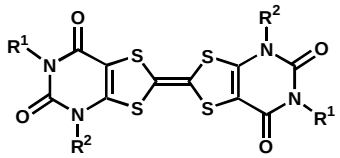
2

	R	X	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference

1	CO_2CH_3	O		CH_3CN[c)]	0.72	1.04	CH_3CN	0.1M TBAP	1
	SCH_3	O		CH_3CN[c)]	0.66	1.06	CH_3CN	0.1M TBAHP	1
	SC_6H_{13}	S	73-74	$CHCl_3$	0.46	0.86	CH_2Cl_2	0.1M TBAHP	2
	$-O(CH_2)_2O-$	S	206	CH_3CN[b)]					4
2	SCH_3		>136	CH_3CN[b)]					3
	$-SCH_2S-$		234	CH_3CN[b)]					3
	$-S(CH_2)_2S-$		247	CH_3CN[b)]					3

[a]Solvent for ^{1}HNMR. [b]Solvent for UV. [c]Solvent for CV.

(1) Y. Siquot, P. Frère, T. Nozdryn, J. Causseau, M. Sallé, M. Jubault, J. Orduna, J. Garín, and A. Gorgues, *Tetrahedron. Lett*., **38**, 1919 (1997).
(2) P. J. Skabara, K. Müllen, M. R. Bryce, J. A. K. Howark, and A. S. Batsanov, *J. Mater. Chem*., **8**, 1719 (1998).
(3) G. C. Papavassiliou, G. A. Mousdis, V. Gionis, J. S. Zambounis, and S. Y. Yiannopoulos, *Z. Naturforsch. B*, **42**, 1050 (1987).
(4) G. C. Papavassiliou, *Synth. Met.*, **42**, 2535 (1991).



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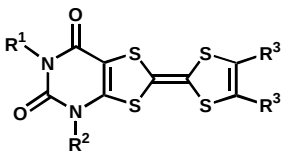
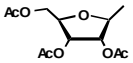
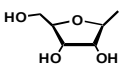
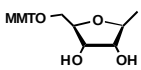
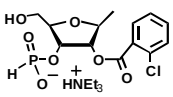
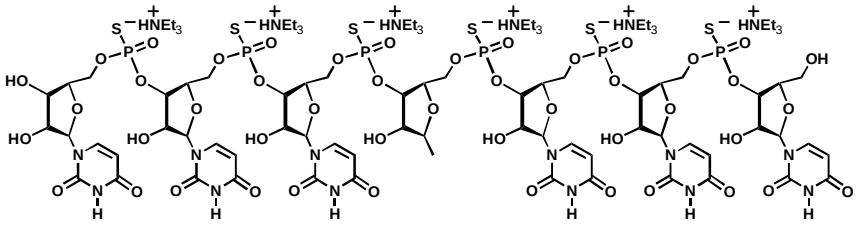


2

	R^1	R^2	R^3	mp/°C	solubility[a)]	E_1	E_2	CV (vs. Ag/AgCl)		reference
1	H	H		>350		0.80		CH_2Cl_2		1
	H	CH_3		>300 (dec.)		0.75		CH_2Cl_2		1
	H	C_8H_{17}		>300	DMF			CH_2Cl_2		1
	CH_3	CH_3		>300				CH_2Cl_2		1
2	H	H	CH_3	> 250 (dec.)	DMF	0.72	0.94	CH_3CN	TBAP	2
	H	H	$-S(CH_2)_2S-$	> 260 (dec.)	DMF	0.75[b)]	0.80[b)]	CH_2Cl_2		1
	H	CH_3	CH_3	256-260	DMF	0.79[b)]	1.00[b)]	CH_2Cl_2		1
	H	CH_3	$-S(CH_2)_2S-$	278-279		0.92[b)]	1.04[b)]	CH_2Cl_2		1
	H	C_8H_{17}	CH_3	236-239	CH_3CN	0.70[b)]	0.99[b)]	CH_2Cl_2		1
	H	$C_{16}H_{33}$	CH_3	206-210	DMF	0.73[b)]	0.99[b)]	CH_2Cl_2		1
	CH_3	CH_3	CH_3	241-243	acetone	0.65[b)]	0.97[b)]	CH_2Cl_2		1
	CH_3	CH_3	$-S(CH_2)_2S-$	244-245	acetone	0.83[b)]	0.97[b)]	CH_2Cl_2		1
	C_8H_{17}	C_8H_{17}	CH_3	114-116						1
	H		CH_3		toluene-AcOEt[c)]					3
	H		CH_3		DMSO[d)]	0.54	0.88	CH_3CN		3
	H		CH_3		$CHCl_3$-MeOH[c)]					3
	H		CH_3		$CHCl_3$[d)]					3
	H	a*	CH_3		CH_3CN-H_2O[e)]	0.29[b)]		CH_3CN-H_2O		3

[a]Solvent for recrystallization. [b]Peak potential. [c]Solvent for chromatography. [d]Solvent for [1]HNMR.
[e]Solvent for UV, 1:1, v/v.

a* = 

(1) O. Nielands, V. Z. Tilika, and A. S. Edžina, *Khim. Geterotsilk. Soedin.,* 1122 (1992).
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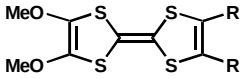
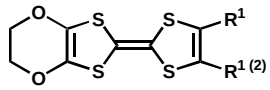


R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
$COOCH_3$		$CHCl_3$	0.57	0.86	PhCN	0.1M TBAP	1
SCH_3		$CHCl_3$	0.45	0.71	PhCN	0.1M TBAP	1
$-SCH_2S-$		$CHCl_3$	0.46	0.69	PhCN	0.1M TBAP	1
$-S(CH_2)_2S-$		$CHCl_3$	0.46	0.73	PhCN	0.1M TBAP	1
$-S(CH_2)_3S-$		$CHCl_3$	0.46	0.75	PhCN	0.1M TBAP	1
$-O(CH_2)_2O-$		$CHCl_3$	0.40	0.69	PhCN	0.1M TBAP	1

[a]Solvent for ^{1}HNMR.

(1) H. Nishikawa, Y. Misaki, T. Yamabe, and M. Shiro, *Synth. Met*., **102**, 1693 (1999).



R^1	(R^2)	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
H								13
CH_3		132	$CHCl_3$	0.33	0.63	CH_3CN	0.1M TBAP	10
CH_2OH			CH_3CN[b)]	0.36	0.67	CH_3CN	0.1M TBAT	1
$(CH_2)_2OH$								
$COOCH_3$		122-123	$CHCl_3$					11
$-(CH_2)_4-$								15
$-(CH=CH)_2-$		175	CH_3CN[c)]					2
SCH_3		73.7-74.1	$CHCl_3$					11
$-SCH_2S-$		171	CH_3CN[c)]					2
		161-163 (dec.)	$CHCl_3$					11
$-S(CH_2)_2S-$		184-185 (dec.)	$CHCl_3$	0.01	0.43	CH_2Cl_2	0.1M TBAHP [e)]	3
		192	CH_3CN[c)]	0.501	0.764	CH_3CN	0.1M TBAHP[d)]	4, 12
$-Se(CH_2)_2Se-$		172	CH_3CN[c)]					16
-SCH=CHS-		194	CH_3CN[c)]	0.620	1.000	CH_3CN	0.025M TBAHP[d)]	2, 12
$-S(CH_2)_3S-$		184-185 (dec.)	$CHCl_3$					11
$-SCH_2OCH_2S-$		188-189 (dec.)	$CHCl_3$					11
								14
		290	CH_3CN[c)]					5
$-SeCH_2Se-$		218	CH_3CN[c)]					2
$-Se(CH_2)_2Se-$		187	CH_3CN[c)]					4
-CH=CHCH=N-		206	CH_3CN[c)]					2
SCN								6

CN				0.76	1.04			6
Cl			PhCN[b)]	0.59	0.89	PhCN	0.1M TBAP	7
Br			PhCN[b)]	0.57	0.89	PhCN	0.1M TBAP	7
I		150 (dec.)	$CHCl_3$-CS_2	0.51	0.84	PhCN	0.1M TBAP	8
CH_3	(H)							13
CH_2OH	(H)		CH_3CN[b)]	0.37	0.69	CH_3CN	0.1M TBAT	9
I	(H)	78.2-78.9	$CHCl_3$	0.47	0.83	PhCN	0.1M TBAP	8

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]V vs. Ag / AgCl. [e]V vs. Ag / Ag^+

(1) T. Inoue, T. Ogawa, G. Saito, *Abstracts of Symposium on Molecular Structure*, 2P3a49 (1997).
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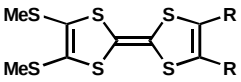
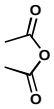
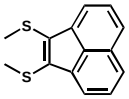


R	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
CH_3		CH_3CN[b)]	0.40	0.70		CH_3CN	0.2M TEAB	1
$C_{12}H_{25}$	65-66	CH_3CN[c)]						2
$C_{18}H_{37}$	65-66	CH_2Cl_2[c)]						2
CH_2OH								3
$COOCH_3$	83	CH_3CN[c)]						4
CH_2Br		C_6H_6	0.60	0.88		CH_3CN	0.1M TBAHP	18
CH_2SH		CH_2Cl_2[b)]	0.49	0.9		CH_2Cl_2	0.1M TBAHP	3
CH_2SCH_3	112-112.5	CH_2Cl_2-PE [f)]	0.47	0.88		CH_2Cl_2	0.1M TBAHP [d)]	20
CH_2SPh	oil	CH_2Cl_2-cyclohexane[g)]	0.44	0.84		CH_2Cl_2	0.1M TBAHP [d)]	20
$CH_2SC_2H_5$	103-104.5	$CHCl_3$-MeOH [f)]	0.44	0.85		CH_2Cl_2	0.1M TBAHP [d)]	20
$CH_2C(S)OCH_3$		CH_2Cl_2[b)]	0.5	0.89		CH_2Cl_2	0.1M TBAHP	3

CF_3	64-65	CH_3CN	0.69	0.96		CH_3CN	0.2M TBAHP [e]	7
	140	*iso* -octane[c]						21
	187-190	CS_2	0.38	0.74	1.38	CH_3CN	0.1M TBAP	17
SCOPh	165	$CHCl_3$						10
SC_4H_9								5
$SC_{12}H_{25}$	65-66	CH_3CN[c]						6
$SC_{18}H_{37}$	65-66	CH_3CN[c]						6
$-SCH_2S-$	83	CH_3CN[c]						8
$-S(CH_2)_2S-$	64(orange) 75(red)	CH_3CN[c]	0.48	0.72		CH_3CN	0.1M TEAP	8
		CH_3CN[b]	0.479	0.718		CH_3CN	0.1M TEAP	9
-SCH=CHS-	117-118	CH_3CN[c]						6, 8
$-S(CH_2)_3S-$	124	CH_3CN[c]	0.480	0.729		CH_3CN	0.1M TEAP	8, 9
								19
$S(CH_2CH_2O)_2CH_2CH_2I$	oil	$CHCl_3$ [a]						11
$-Te(CH_2)_2Te-$		PhCN[b]	0.43	0.72		PhCN	d)	14
SCN								14
CN			0.85	1.06				14
F								16
Cl	111-111.5	$CHCl_3$	0.69	0.94		PhCN	0.1M TBAP	15
Br	121.5-122	$CHCl_3$	0.66	0.91		PhCN	0.1M TBAP	15
I	115-115.5	$CHCl_3$	0.59	0.87		PhCN	0.1M TBAP	15

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]V vs. Ag / AgCl. [e]V vs. Ag wire. [f]Solvent for recrystalizaton. [g]Solvent for chromatography.

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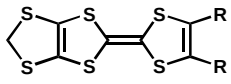

R	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
CH_3	139-141	CH_3CN[c)]					1
CH_2OH			0.41	0.68			2
$COOCH_3$	143	CH_3CN[c)]					3
SCH_2COOCH_3	87	CH_3CN[c)]					5
$SC_{18}H_{37}$	65-67	CH_3CN[c)]					1
$-S(CH_2)_2S-$	183.5-184	$CHCl_3$	0.07	0.45	CH_2Cl_2	0.1M TBAHP [e)]	6
	189	CH_3CN[c)]					8
$-S(CH_2)_3S-$	192-193 (dec.)	$CHCl_3$	0.08	0.46	CH_2Cl_2	0.1M TBAHP [e)]	7
	189	CH_3CN[c)]					8
$SeCH_3$	oil	CH_3CN[c)]					1
$-Se(CH_2)_2Se-$	285	CS_2[d)]					4
$-Se(CH_2)_3Se-$	212	CS_2[d)]					4

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for chromatography. [e]V vs. Ag / Ag^+

(1) J. S. Zambounis, and C. W. Mayer, *Teterahedron Lett* ., **32**, 2737 (1991).
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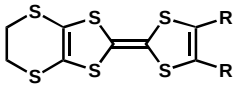
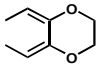
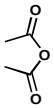
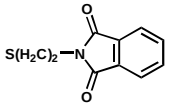
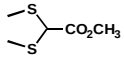
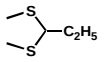
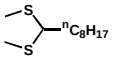
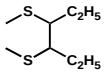
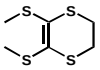
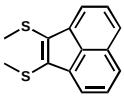
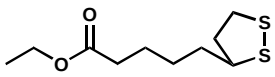


R	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
CH_3		CH_3CN[b)]	0.40	0.71	CH_3CN	0.2M TEAB	1
		CH_3CN[b)]	0.369	0.670	CH_3CN	0.1M TEAP	2
SCH_2CN							33
$-(CH_2)_3-$		CH_3CN[b)]	0.368	0.661	DMF	0.1M TEAP	2

$-(CH_2)_4-$		PhCN[b]	0.43	0.81	PhCN	0.1M TBAP	3
$-(CH=CH)_2-$		CH_3CN[b]	0.57	0.87	CH_3CN	0.2M TEAB	1
			0.57	0.93	CH_2Cl_2	0.1M TBAP	30
	195-197	benzene[d]					39
	243	pyridine[d]					39
CH_2OH	170-175	AcOEt[d]	0.53	0.72	DMF	0.1M TBAP	5
CH_2CH_2OH	103-104	$CHCl_3$ [a]	0.54	0.89	CH_2Cl_2	0.1M TBAP	35
CHO	210-211 (dec.)	$CHCl_3$					5
COOH	>150 (dec.)						40
$COOCH_3$	119	CH_3CN[c]			DMF		6
	210-213						40
CH_2Br		C_6H_6	0.67	1.15	o-$PhCl_2$	0.1M TBAHP	28
CH_2SH		CH_2Cl_2[b]	0.48	0.9	CH_2Cl_2	0.1M TBAHP	7
$CH_2C(S)OCH_3$		CH_2Cl_2[b]	0.48	0.91	CH_2Cl_2	0.1M TBAHP	7
		PhCN[b]	0.41	0.75	PhCN	TBAP [f]	8, 34
			0.468	0.885	CH_2Cl_2	[f]	
			0.553	0.716	DMF	[f]	
			0.432	0.717	DMF	[f]	
		PhCN[b]	0.48	0.76	PhCN	TBAP [f]	8
a*		$CHCl_3$ [a]	0.65	0.90	THF	0.1M TBAHP [f]	27
SCH_2CH_3							37
SCOPh	122	$CHCl_3$					38
SH_2COOCH_3	96	CH_3CN[c]					9
$SCH_2CH_2C_6F_{13}$			0.65	1.00	CH_2Cl_2	0.1M TBAHP	11
SCH_2CH_2Cl							12
$SCH_2CH_2N_3$	oil						36
$SCH_2CH_2NH_2$	oil	MeOH-CH_2Cl_2[e]					36
$S(CH_2)_2OSO_2Me$	oil	CH_2Cl_2-EtOAc [e]					36
	159-161	CH_2Cl_2-hexane [e]					36
SC_7H_{15}							13
$SC_{12}H_{25}$	hexane-CH_2Cl_2[e]						14
$SC_{18}H_{37}$	hexane-CH_2Cl_2[e]		0.63	0.94			14, 15
	167	CH_3CN[c]					17
			0.58	0.85	PhCN	0.1M TBAP	29

			0.59	0.85	PhCN	0.1M TBAP	29
			0.58	0.84	PhCN	0.1M TBAP	29
			0.59	0.85	PhCN	0.1M TBAP	29
$SCH=CH_2$	50-51	CH_3CN[c]	0.54	0.91	CH_3CN	0.1M TBAHP [f]	16, 17
$-S(CH_2)_3S-$		CH_3CN[b]	0.490	0.765	CH_3CN	0.1M TEAP	2
$-S(CD_2)_2S-$	237-238	CH_3CN[c]					16
$-SCH_2OCH_2S-$	195-197	CS_2	0.54	0.79	CH_3CN	TBAP	19
$-SCH_2SCH_2S-$			0.73				20
	130-132	$CHCl_3$	0.05	0.47	CH_3CN	0.1M TBAHP [g]	10
	193 (dec.)	$CHCl_3$-CS_2	0.68	0.95	PhCN	0.1M TBAP	21
			0.52	0.89	PhCN		32
			0.55	0.88	PhCN		32
	183-183.6	$CHCl_3$	0.69	1.06	PhCN	[f]	23
$-O(CH_2)_2S-$		CH_2Cl_2[b]	0.43	0.85	CH_2Cl_2	TBAHP	24
SeMe							37
$SeC_{18}H_{37}$	84	CS_2[e]					22
$-SeCH_2Se-$	230	CS_2[e]					22
$-Se(CH_2)_2Se-$	294	CS_2[e]					22
$-Se(CH_2)_2S-$							31
TeMe							37
SCN							25
CN			0.89	1.10			25
Cl	119-120	$CHCl_3$-CS_2	0.63	0.94	PhCN	0.1M TBAP	26
Br	167-168	$CHCl_3$-CS_2	0.66	0.93	PhCN	0.1M TBAP	26
I	146-147	$CHCl_3$-CS_2	0.6	0.89	PhCN	0.1M TBAP	26

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for recrysrtallization. [e]Solvent for chromatography. [f]V vs. Ag / AgCl. [g]V vs. $Ag/AgNO_3$.

a* = 

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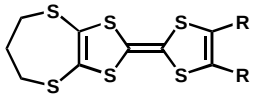
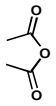
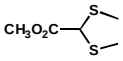


R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference

CH_3		CH_3CN[b]	0.364	0.685	CH_3CN	0.1M TEAP	1
CH_2OH			0.36	0.67	CH_3CN		2
COOH	>120 (dec.)						9
$COOCH_3$	165	CH_3CN[c]					3
	193-195						9
SCH_3	124	CH_3CN[b]	0.480	0.729	CH_3CN	0.1M TBAP	1
SCH_2COOCH_3	119	CH_3CN[c]					5
	178	CH_3CN[c]					8
$-SCH_2OCH_2S-$		CH_3CN[b]	0.25	0.50	CH_3CN	[e]	7
$SeC_{18}H_{37}$	86	CS_2[d]					8
$-SeCH_2Se-$	230	CS_2[d]					8

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for UV. [d]Solvent for chromatography. [e]V vs. Ag / AgCl.

(1) H. Tatemitsu, E. Nishikawa, Y. Sakata, S. Misumi, *J. Chem. Soc. Chem. Commun* ., 106 (1985).
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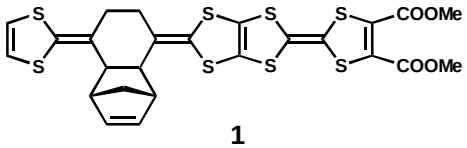

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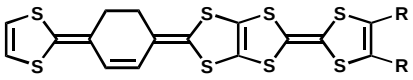

2

	R	mp/°C	solubility	E_1	E_2	E_3	CV (vs. SCE)		reference
1									1
2	COOMe								1
2	H			0.00	0.42	0.66	PhCN	[a]	1

[a] V vs. Ag / AgCl

(1) T. Kaibuki, Y. Misaki, and K. Tanaka, *Abstracts of 76th Annual Meeting of the Chemical Society of Japan II,*
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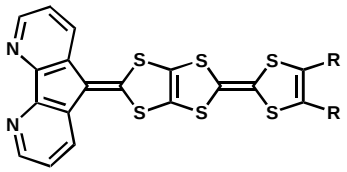

R	mp/°C	solubility	E_1	E_2	E_3	CV (vs. Fc / Fc^+)	reference
H			0.07	0.42	1.32	benzene 0.1M TBAP	1
CH_3			0.05	0.37	1.32	benzene 0.1M TBAP	1
SCH_3			0.20	0.38	1.32	benzene 0.1M TBAP	1
$-O(CH_2)_2O-$			0.09	0.36	1.32	benzene 0.1M TBAP	1

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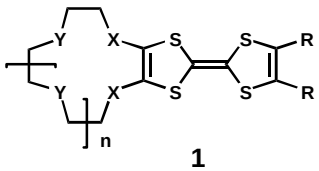

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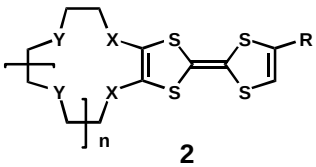

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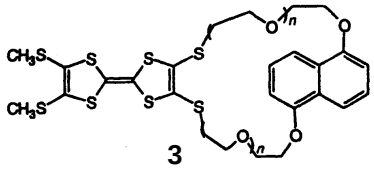
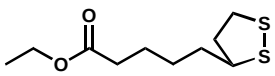


3

	X	Y	n	R	mp/°C	solubility[a]	E_1	E_2	CV (vs. SCE)	reference
1	S	S	0	SMe	oil	$CHCl_3$ [b]				6
	S	S	2	$SC_{11}H_{23}$		CH_2Cl_2-MeOH	0.45	0.75	CH_2Cl_2 0.4M TBAHP [c]	1
							0.86	0.96	THF 0.1M TBAHP [c]	1
	S	O	2	SMe	125-126	$CHCl_3$-EeOH	0.51	0.76	CH_2Cl_2 TBAP [a]	2
	S	O	2	**a***		$CHCl_3$ [b]	0.64	0.85	THF 0.1M TBAHP [c]	3
	S	O	3	$SC_{18}H_{37}$	84-85	$CHCl_3$ [b]	0.47	0.72	[d] TBAP	4
	S	O	3	CO_2Me	74-75	Et_2O-pentane				4
	S	O	3	**a***		$CHCl_3$ [b]	0.62	0.8	THF 0.1M TBAHP [c]	3
2	S	O	3	H	78	hexane	0.42	0.66	CH_3CN TBAP	4
	S	O	3	CHO	92	hexane				4
	S	O	3	CO_2Me	92-93	CH_2Cl_2-hexane				4
	S	O	3	CH_2OH	oil	$CHCl_3$ [b]				4
	S	O	3	CO_2H	149	CH_2Cl_2-hexane	0.47	0.68	CH_3CN TBAP	4
	S	O	3	$CH_2OC(O)C_{17}H_{35}$	74	EeOH				4
3			2		93.5-95	CH_2Cl_2-EtOAc	0.52	0.86	CH_2Cl_2 0.1M TBAHP [c]	5
							0.48	0.74	[e] 0.1M TBAHP [c]	5
			3		oil	CH_2Cl_2-EtOAc	0.53	0.86	CH_2Cl_2 0.1M TBAHP [c]	5
							0.48	0.75	[e] 0.1M TBAHP [c]	5

[a]Solvent for recrystallization. [b]solvent for ^{1}H-NMR [c]V vs Ag / AgCl. [d]CH_2Cl_2-MeCN (2:1 v/v). [e]CH_2Cl_2-MeCN (10% v/v).

a* = 

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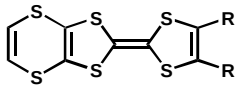
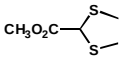


R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
CH_2OH			0.48	0.76		1
$COOCH_3$	146	CH_3CN[b)]				2
SCH_2COOCH_3	107	CH_3CN[b)]				3
SCH_3	117-118	CH_3CN[b)]				3, 9
$-SCH_2S-$	189	CH_3CN[b)]				4
$-S(CH_2)_2S-$						5
$-S(CH_2)_3S-$			0.8			6
$-SH_2SCH_2S-$			0.78			6
$-SH_2OCH_2S-$						7
	171-173	CH_3CN[b)]				4
$-Se(CH_2)_2Se-$	284	CS_2[c)]				8
$-Se(CH_2)_3Se-$	231	CS_2[c)]				8

[a]Solvent for ^{1}HNMR. [b]Solvent for UV. [c]Solvent for chromatography.

(1) T. Inoue, T. Ogawa, and G. Saito, *Abstracts of Symposium on Molecular Structure*, 2P3a49 (1997).
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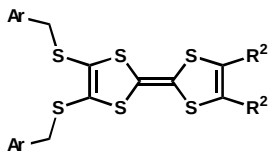
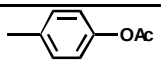
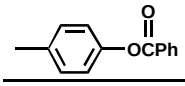
(5) R. R. Schumaker, E. Dupart, R. Laversanne, C. Coulon, and P. Delhaès, *NATO ASI Ser., Ser. B*, **168**, 309 (1987).
(6) T. Nogami, S. Ikegami, and H. Shirota, *Abstracts of 59th Annual Meeting of the Chemical Society of Japan I*, 2F343 (1990).
(7) T. Nogami, *Abstracts of 62nd Annual Meeting of the Chemical Society of Japan I*, 1B309 (1991).
(8) G. C. Papavassiliou, V. C. Kakoussis, and D. J. Lagouvardos, *Z. Naturforsch. B*, **46**, 1269 (1991).
(9) J. S. Zambounis, and C. W. Mayer, *Teterahedron Lett*., **32**, 2737 (1991).



Ar	R^2	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)	reference
	H	160.9-161.4	CS_2-benzene				1, 2
	CH_3						5

$-(CH_2)_3-$			6
$-(CH=CH)_2-$			8
SCH_3	80-85	$CHCl_3$	3, 4
	85-86	CH_2Cl_2-MeOH[b)]	1, 2
SEt	104.5-105.5	CH_2Cl_2-MeOH[b)]	2, 8
$SC_6H_{13}{}^n$	91-92.7	$CHCl_3$	2, 8
SC_4H_9	87-90	$CHCl_3$	3, 4
$-S(CH_2)_2S-$	99-102	$CHCl_3$	4
$-S(CH_2)_3S-$			9
$-O(CH_2)_2O-$			9, 10
	SCH_3	120-122	$CHCl_3$	4

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization.

(1) Y. Misaki, T. Matsui, K. Kawakami, H. Nishikawa, T. Yamabe, and M. Shiro, *Chem. Lett.,* 1337 (1993).
(2) H. Nishikawa, Diss. Kyoto University 1993.
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(5) Y. Misaki, K. Kawakami, T. Matsui, T. Yamabe, and M. Shiro, *J. Chem. Soc., Chem. Commun.,* 459 (1994).
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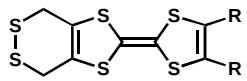
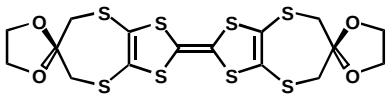
(7) Y. Misaki, T. Miura, H. Fujiwara, K. Kawakami, T. Yamabe, T. Mori, H. Mori, and S. Tanaka, *Synth. Met.,* **86**, 1821 (1997).
(8) H. Nishikawa, S. Kawauchi, Y. Misaki, and T. Yamabe, *Chem. Lett.,* 43 (1996).
(9) Y. Misaki, T. Miura, K. Kawakami, H. Fujiwara, T. Yamabe, T. Mori, H. Mori, S. Tanaka, and M. Shiro, *Synth. Met.,* **70**, 1149 (1995).
(10) Y. Misaki, H. Nishikawa, K. Kawakami, T. Yamabe, T. Mori, H. Inokuchi, H. Mori, and S. Tanaka, *Chem. Lett.,* 2073 (1993).



R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. SCE)		reference
SCH_3	173-174	$CHCl_3$	0.51	0.91	CH_2Cl_2	0.1M TBAHP	1, 2
$-S(CH_2)_2S-$	236-238	PhCl[b)]	0.49	0.93	CH_2Cl_2	0.1M TBAHP	1, 2

[a]Solvent for ^{1}HNMR. [b]Solvent for CV.

(1) S. L. Moustarder, P. Hudhomme, M. Sallé, P. Blanchard, A. Riou, M. Jubault, G. Duguay, and A. Gorgues, *Synth. Met* ., **94**, 41 (1998).
(2) P. Hudhomme, P. Blanchard, M. Sallé, S. L. Moustarder, A. Riou, M. Jubault, A. Gorgues, G. Duruay, *Angew. Chem. Int. Ed. Engl.,* **36**, 878 (1997).



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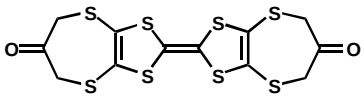

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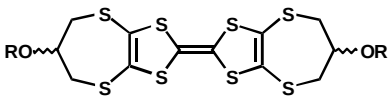

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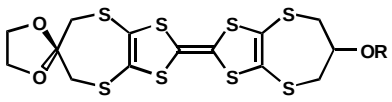

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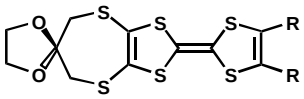

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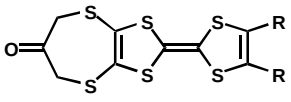

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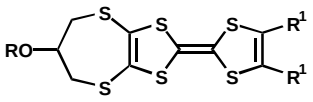

7

	R	R^1	mp/°C	solubility[a)]	E_1	E_2	CV (vs. Ag / AgCl)		reference
1			>230	$CHCl_3$					1
2			>340	DMSO	0.68	1.04	TCE	0.1M TBAHP	1, 2
			235-236						3
3	H		>230 (dec.)	DMSO	0.66	1.03	CH_2Cl_2	0.1M TBAHP	1
	$SiPh_2$-^{t}Bu		201-202	MeOH-CH_2Cl_2[b)]					1
	C(O)Me		>230	$CHCl_3$					1
	C(O)-$(CH_2)_2$-Br		224-225	toluene[b)]					1
4	CH_2CH_2OH								1
	$SiPh_2$-^{t}Bu		>230	$CHCl_3$					1
5	H		200-203	DMSO					1
	CH_3		218-220	DMSO					1
	SCH_3		152-154	$CHCl_3$					1
	-$S(CH_2)_2S$-		226-228	$CHCl_3$					1
6	H		179-182 (dec.)	$CHCl_3$	0.60	0.91	TCE	0.1M TBAHP	1, 2
	CH_3		220-222	$CHCl_3$	0.51	0.96	TCE	0.1M TBAHP	1, 2
	SCH_3		175-178	$CHCl_3$	0.64	0.98	TCE	0.1M TBAHP	1, 2
	-$S(CH_2)_2S$-		218-220	$CHCl_3$	0.64	1.02	TCE	0.1M TBAHP	1, 2
7	H	H	190-192	$CHCl_3$	0.50	0.89	CH_2Cl_2	0.1M TBAHP	1
	$SiPh_2$-^{t}Bu	H	95-96	$CHCl_3$					1
	C(O)NH-$C_{18}H_{37}$	H	129-132	toluene-hexane[b)]					1
	H	CH_3	207-210	$CHCl_3$					1
	H	SCH_3	143-144	hexane-CH_2Cl_2[b)]	0.56	0.92	CH_2Cl_2	0.1M TBAHP	1
	$SiPh_2$-^{t}Bu	SCH_3		$CHCl_3$					1
	C(O)-CH=CH_2	SCH_3	156-157	hexane-CH_2Cl_2[b)]	0.57	0.93	CH_2Cl_2	0.1M TBAHP	1
	C(O)NH-$(CH_2)_2$-Cl	SCH_3	219-221	hexane-CH_2Cl_2[b)]	0.56	0.92	CH_2Cl_2	0.1M TBAHP	1

[a]Solvent for ^{1}HNMR. [b]Solvent for recrystallization.

(1) G. J. Marshallsay, M. R. Bryce, G. Cooke, T. Jørgensen, J. Becher, C. D. Reynolds, and S. Wood, *Tetrahedron* , **49**, 6849 (1993).
(2) M. R. Bryce, and G. J. Marshallsay, *Tetrahedron Lett* ., **32**, 6033 (1991).
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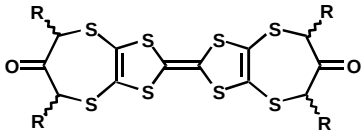

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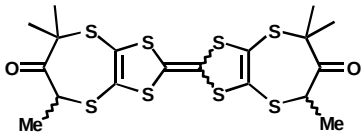
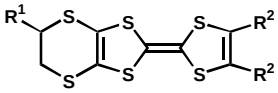


2

	R	mp/°C	solubility[a)]	E_1	E_2	CV (vs. Ag / AgCl)	reference
1	CH_3	210-216	pyridine				1
	C_2H_5	203-206	pyridine				1
2							1

[a]Solvent for recrystallization.

(1) G. G. Abashev, and V. S. Russkikh, *Zh. Org. Khiim.*, **30**, 621 (1994).



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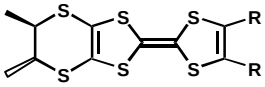

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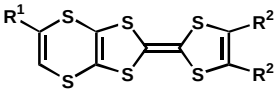

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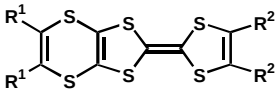
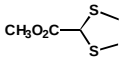
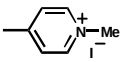
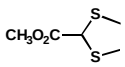


4

	R^1	R^2	mp/°C	solubility[a]	E_1	E_2	CV (vs. SCE)		reference
1	CH_3	$COOCH_3$	110	CH_3CN[c]					1
	CH_3	SCH_3	61	CH_3CN[c]					2
	CH_3	SCH_2COOCH	65	CH_3CN[c]					2
	CH_3	-SCH_2S-	166	CH_3CN[c]					3
	CH_3		131	CH_3CN[c]					3
	CH_3	-$S(CH_2)_2S$-	193-194	CH_3CN[c]					4
	CH_3	-N=CHCH=N-	145	CH_2Cl_2[b]					5
	CH_3		187	CH_2Cl_2[b]					5
	CH_2OH	-$S(CH_2)_2S$-			0.58	0.90	DMSO	0.1M TBAHP	10
		SCH_3	158-159	CH_3CN[e]					13
		SCH_3	160-170						13
		-$S(CH_2)_2S$-	187-188(dec.)	$ClCH_2CH_2Cl$	0.45	0.82	CH_2Cl_2	0.1M TBAHP	11
		-$S(CH_2)_2S$-	173-175(dec.)	$ClCH_2CH_2Cl$	0.45	0.87	CH_2Cl_2	0.1M TBAHP	11
	$C_{16}H_{33}$	-$S(CH_2)_2S$-	92-93	hexane	0.63	0.90			6
	$C_{18}H_{37}$	-$S(CH_2)_2S$-	95.5-96	CH_2Cl_2[f]	0.42	0.90	CH_2Cl_2	0.1M TBAHP[d]	6
	$CH_2OC(O)C_{17}H_{3}$	-$S(CH_2)_2S$-	86-88	$CHCl_3$	0.70	0.87	CH_3CN	[d]	9
2	$COOCH_3$			CH_3CN[c]					1
	$CH_2O(CH_2)_2Si(CH_3)_3$		oil	CH_3CN[c]					4
	SCH_3		93	CH_3CN[c]					2
	SCH_2COOCH_3		>82	CH_3CN[c]					2
	-SCH_2S-		167	CH_3CN[c]					3
	-$S(CH_2)_2S$-		212	$CHCl_3$					4
			141	CH_3CN[c]					3
	-NCH=CHN-								14
	-$O(CH_2)_2O$-								14
3	CH_3	-$S(CH_2)_2S$-	210 (dec.)	CS_2	0.76		THF	TBAP	7
		-$S(CH_2)_2S$-	222-224(dec.)	$ClCH_2CH_2Cl$	0.50	0.89	CH_2Cl_2	0.1M TBAHP	11
		-$S(CH_2)_2S$-	204-206(dec.)	$ClCH_2CH_2Cl$	0.48	0.89	CH_2Cl_2	0.1M TBAHP	11
4	CH_3	-$S(CH_2)_2S$-							8
	$CH(OEt)_2$	$COOCH_3$							12
	CHO	$COOCH_3$							12

[a]Solvent for [1]HNMR. [b]Solvent for chromatography. [c]Solvent for UV. [d]V vs. Ag / AgCl. [e]Solvent for recrystallization. [f]Solvent for CV.

(1) G. C. Papavassiliou, J. S. Zambounis, G. A. Mousdis, V. Gionis, and S. Y. Yiannopoulos, *Mol. Cryst. Liq. Cryst*, **156**, 269 (1988).
(2) G. C. Papavassiliou, V. C. Kakoussis, G. A. Mousdis, J. S. Zambounis, and C. W. Mayer, *Chem Scr*., **29**, 71 (1989).
(3) G. C. Papavassiliou, G. A. Mousdis, S. Y. Yiannopoulos, and J. S. Zambounis, *Chem. Scr.*, **28**, 365 (1988).
(4) J. S. Zambounis, and C. W. Mayer, *Teterahedron Lett*., **32**, 2737 (1991).
(5) G. C. Papavassiliou, S. Y. Yiannopoulos, and J. S. Zambounis, *Chem. Scr*., **27**, 265 (1987).
(6) V. Yu. Khodorkovskii, G. G. Pukitis, A. Ya. Puplovskii, A. S. Edzhinya, and O. Ya. Neilands, *Chem. Heterocycl. Comp*., 114 (1990).
(7) H. Nakano, K. Miyawaki, T. Nogami, Y. Shirota, S. Harada, and N. Kasai, *Bull. Chem. Soc. Jpn*., **62**, 2604 (1989).
(8) R. R. Schumaker, E. Dupart, R. Laversanne, C. Coulon, and P. Delhaès, *NATO ASI Ser., Ser. B*, **168**, 309 (1987).
(9) O. Ya. Neiland, and Ya. Ya. Katsen, *Chem. Heterocycl. Comp.,* **30**, 373 (1994).
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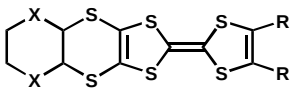
(11) W. Xu, D. Zhang, H. Li, and D. Zhu, *J. Mater. Chem*., **9**, 1245 (1999).
(12) P. Leriche, A. Gorgues, M. Jubault, J. Becher, J. Orduna, and J. Garín, *Tetrahedron Lett.,* **36**, 1275 (1995).
(13) L. M. Goldenberg, J. Y. Becker, O. P. Levi, V. Yu. Khodorkovsky, M. R. Bryce, and M. C. Petty, *J. Chem. Soc., Chem. Commun.,* 475 (1995).
(14) G. C. Papavassiliou, D. J. Lagouvardos, A. Terzis, C. P. Raptopoulou, B. Hilti, W. Hofherr, J. S. Zambounis, G. Rihs, J. Pfeiffer, P. Delhaes, K. Murata, N. A. Fortune, and N. Shirakawa, *Synth. Met.,* **70**, 787 (1995).



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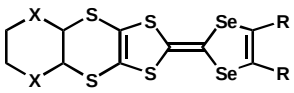

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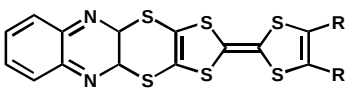

3

	X	R	mp/°C	solubility[a)]	E_1	E_2	E_3	CV (vs. SCE)		reference
1	O	$-O(CH_2)_2O-$		$CHCl_3$-CS_2	0.50	0.81		PhCN	0.1M TBAP	1
	O	$-S(CH_2)_2S-$	175 (dec.)	$CHCl_3$-CS_2	0.65	0.94		PhCN	0.1M TBAP	2
	O	$SeCH_3$		$CHCl_3$-CS_2	0.55	0.85		PhCN	0.1M TBAP	3
	O	$-SeCH_2Se-$		$CHCl_3$-CS_2	0.52	0.8		PhCN	0.1M TBAP	3
	O	$-Se(CH_2)_2Se-$		$CHCl_3$-CS_2	0.54	0.84		PhCN	0.1M TBAP	3
	O	-SCH=CHS-			0.71	0.98	1.75 [c)]	PhCN	0.1M TBAP	5
1	S	$-S(CH_2)_2S-$	193 (dec.)	$CHCl_3$-CS_2	0.61	0.91		PhCN	0.1M TBAP	2
		$SeCH_3$		$CHCl_3$-CS_2	0.56	0.86		PhCN	0.1M TBAP	3
		$-SeCH_2Se-$		$CHCl_3$-CS_2	0.53	0.80		PhCN	0.1M TBAP	3
		$-Se(CH_2)_2Se-$		$CHCl_3$-CS_2	0.56	0.86		PhCN	0.1M TBAP	3
2	O	$-S(CH_2)_2S-$		$CHCl_3$-CS_2	0.65	0.90		PhCN	0.1M TBAP	1
3		SCH_3	179-181	hexane-CH_2Cl_2 [b)]	0.78	1.27		TCE	0.1M TBAT	4
		$-S(CH_2)_2S-$	252-255	hexane-CH_2Cl_2 [b)]	0.82	1.06		DMF/TCE	0.1M TBAT	4

[a]Solvent for [1]HNMR. [b]Solvent for chromatography. [c]Irreversible wave.

(1) S. Ikeda, H. Nishikawa, I. Ikemoto, K. Kikuchi, J. Yamada, and H. Anzai, *Abstracts of 74th Annual Meeting of the Chemical Society of Japan II,* 2D301 (1998).
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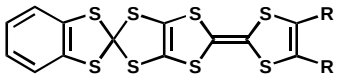

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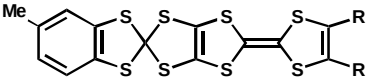
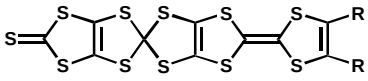


2



3

	R	mp/°C	solubility	E_1	E_2	E_3	CV (vs. Ag / AgCl)	reference
1	SCH_3	222 (dec.)		0.71	0.87	-0.99	DMF 0.1M TEAP	1
	$-S(CH_2)_2S-$	214-215		0.71	0.87	-0.97	DMF 0.1M TEAP	1
2	SCH_3	208-209		0.68	0.82	-1.17	DMF 0.1M TEAP	1
	$-S(CH_2)_2S-$	253-254		0.68	0.82	-1.18	DMF 0.1M TEAP	1
3	SCH_3	190-192	$CHCl_3$					2

(1) M. Iwamatsu, K. Ueda, T. Sugimoto, and H. Fujita, *Synth. Met*., **102**, 1617 (1999).
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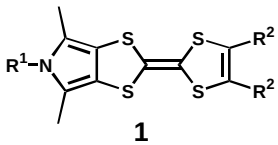
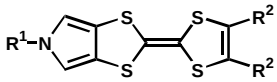


1



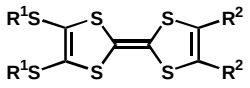
2

	R^1	R^2	mp/°C	solubility	E_1	E_2	CV (vs. SCE)	reference
1	H	$-S(CH_2)_2S-$	210 (dec.)	$CHCl_3$				1
	Ph	$-S(CH_2)_2S-$	195-198(dec.)	$CHCl_3$	0.391	0.855	CH_2Cl_2 0.1M TBAHP	1
	CO_2Bu^t	$-S(CH_2)_2S-$	195-197(dec.)	$CHCl_3$	0.535	0.980	CH_2Cl_2 0.1M TBAHP	1
	H	CH_3	228-230(dec.)	$CHCl_3$	0.263	0.766	CH_2Cl_2 0.1M TBAHP	1
	CH_3	CH_3	213-215	$CHCl_3$	0.255	0.769	CH_2Cl_2 0.1M TBAHP	1
	Ph	CH_3						1
	CO_2Bu^t	CH_3	195-198(dec.)	$CHCl_3$	0.423	0.929	CH_2Cl_2 0.1M TBAHP	1
	H	$SC_{16}H_{33}$	83-85	$CHCl_3$	0.385	0.822	CH_2Cl_2 0.1M TBAHP	1
	CH_3	$SC_{16}H_{33}$	65-67	$CHCl_3$	0.382	0.877	CH_2Cl_2 0.1M TBAHP	1
	Ph	$SC_{16}H_{33}$						1
	CO_2Bu^t	$SC_{16}H_{33}$	64-65	$CHCl_3$	0.532	0.929	CH_2Cl_2 0.1M TBAHP	1
2	Ts	SCH_3			0.59	0.86	CH_3CN [b] 0.1M TBAHP	2
	H	SCH_3			0.44	0.75	CH_3CN 0.1M TBAHP	2
	CH_3	SCH_3			0.42	0.74	CH_3CN 0.1M TBAHP	2
	$^nC_4H_9$	SCH_3			0.42	0.78	CH_3CN 0.1M TBAHP	2

[a]Solvent for ^{1}HNMR. [b]V vs. Ag / AgCl.

(1) K. Zong, and M. P. Cava, *J. Org. Chem*., **62**, 1903 (1997).

(2) J. O. Jeppesen, K. Takimiya, F. Jensen, and J. Becher, *Org. Lett*., **1**, 1291 (1999).



R^1	R^2	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
C_2H_5	COOMe	63-65	CH_2Cl_2 [c]	0.63	0.89	CH_3CN	0.2M TBAHP [d]	5
C_5H_{11}	CH_2CH_2CN		C_6H_6 [a]	0.67	1.15	CH_3CN	0.1M TBAHP	6
C_6H_{13}	CH=CHCHO	75	$CHCl_3$					2
$C_{10}H_{21}$	$-S(CH_2)_2S-$							11
$C_{12}H_{25}$	CH=CHCHO	88	$CHCl_3$					2
$C_{13}H_{27}$	$-S(CH_2)_2S-$							11
$C_{16}H_{33}$	SCH_3							9
$C_{16}H_{33}$	SCH_2COOH	131	toluene-hexane[e]	0.61	0.97	CH_2Cl_2	0.1M TBAHP	10
$C_{16}H_{33}$	SCH_2COOCH_3	87	hexane[e]	0.65	1.02	CH_2Cl_2	0.1M TBAHP	10
$C_{16}H_{33}$	$-S(CH_2)_2S-$							11
$C_{16}H_{33}$	COOMe	64-66	CH_2Cl_2 [c]					5
$C_{18}H_{37}$	CH_2CH_2OH	107-108	CH_2Cl_2 [d]					8
$C_{18}H_{37}$	$COOCH_3$	75	CH_3CN[b]	0.76	1.02	CH_3CN		3
$C_{18}H_{37}$	SCH_3	65-66	CH_3CN[f]					1
$C_{18}H_{37}$	SCH_2COOCH_3	64-65	CH_3CN[b]	0.70	0.96	CH_3CN		3
$C_{18}H_{37}$	$S(CH_2)_2OSiPh_2{}^tBu$	43	CH_2Cl_2-hexane [c]					8
$C_{18}H_{37}$	$S(CH_2)_3NH_2$	116-117	CH_2Cl_2 [e]					8
C_2H_5	$SeCH_2CH_2CN$							7
$C_{18}H_{37}$	$-Se(CH_2)_2Se-$	84	CS_2 [c]					4
$C_{18}H_{37}$	$-Se(CH_2)_3Se-$	80	CS_2 [c]					4
$-CH_2OCH_2-$	I			0.63	0.89	PhCN	0.1M TBAP	5
-CH=CH-	I							6

[a]Solvent for ^{1}HNMR. [b]Solvent for CV. [c]Solvent for chromatography. [d]V vs. Ag wire. [e]solvent for recrystallization. [f]Solvent for UV.

(1) J. Zambounis, and C. W. Mayer, *Tetrahedron. Lett*., **32**, 2737 (1991).
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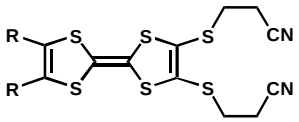
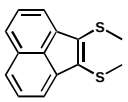


R	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
CH_3	121-122	CH_2Cl_2 [d)]	0.48	0.92	CH_2Cl_2	0.1M TBAHP	5
COOMe	103-104	CH_2Cl_2	0.75	1.06	CH_2Cl_2	TEAHP	1
CH_2Br	106-106.5 (dec.)	CH_2Cl_2-PE [c,e)]	0.7	1.09	CH_2Cl_2	0.1M TBAHP [b)]	4
CH_2SCN	120-121	CH_2Cl_2	0.74	1.04	CH_2Cl_2	0.1M TBAHP [b)]	4
$CH_2OSiPh_2{}^tBu$	semisolid	CH_2Cl_2	0.54	0.96	CH_2Cl_2	0.1M TBAHP [b)]	4
CH_2OH	139.5-140	*iso*-PrOH [c)]	0.51	0.85	CH_2Cl_2	0.1M TBAHP [b)]	4
CH_2SCH_3	118-119	CH_2Cl_2-PE [c,e)]	0.58	0.99	CH_2Cl_2	0.1M TBAHP [b)]	4
CH_2SPh	112.5-113	CH_2Cl_2-PE [c,e)]	0.55	0.94	CH_2Cl_2	0.1M TBAHP [b)]	4
$CH_2SC_2H_5$	103.5-104	CH_2Cl_2-PE [c,e)]	0.54	0.95	CH_2Cl_2	0.1M TBAHP [b)]	4
$-CH_2S-SCH_2-$	177-178	CH_2Cl_2-PE [c,e)]	0.62	1.02	CH_2Cl_2	0.1M TBAHP [b)]	4
$-CH_2S(O_2)CH_2-$							3
SMe	113-114	CH_2Cl_2	0.59	0.92	CH_2Cl_2	TEAHP	1
SEt	89-90	CH_2Cl_2	0.63	0.98	CH_2Cl_2	TEAHP	1
SCH_2CN	120-121	CH_2Cl_2	0.74	1.04	CH_2Cl_2	0.1M TBAHP [b)]	4
$-SCH_2CH_2S-$	141-142	CH_2Cl_2	0.60	0.98	CH_2Cl_2	TEAHP	1
$-OCH_2CH_2O-$	154	CH_2Cl_2 [d)]	0.55	0.94	CH_2Cl_2	0.1M TBAHP	5
$-SeCH_2CH_2Se-$	148	CH_2Cl_2 [d)]	0.59	0.96	CH_2Cl_2	0.1M TBAHP	5
SCH_2CH_2Ph	134	CH_2Cl_2	0.57	0.91	CH_2Cl_2	TEAHP	1
SC_5H_{11}	93-94	CH_2Cl_2	0.57	0.91	CH_2Cl_2	TEAHP	1
$SC_{10}H_{21}$	110-111	CH_2Cl_2	0.62	1.00	CH_2Cl_2	TEAHP	1
$SC_{18}H_{37}$	107	CH_2Cl_2	0.62	0.98	CH_2Cl_2	TEAHP	1
	174-177	toluene [c)]					2

[a]Solvent for CV. [b]V vs. Ag/AgCl. [c]Solvent for recrystalization. [d]Solvent for column chromatography. [e]PE = petroleum ether.

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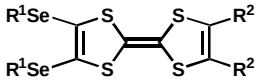

R^1	R^2	mp/°C	solubility	E_1	E_2	CV (vs. SCE)		reference
$-CH_2-$	$COOCH_3$	152	CH_3CN[c]					1
$-(CH_2)_2-$	CH_3	210 (dec.)	hexane-CH_2Cl_2[b]					2
$-(CH_2)_2-$	$COOCH_3$	113	CH_3CN[b]					1
$-(CH_2)_2-$	CHO	167-170	$CHCl_3$					3
$-(CH_2)_2-$	CH_2OH	165 (dec.)	DMSO					3
$-(CH_2)_2-$	$-(CH_2)_4-$			0.42	0.80	PhCN	0.1M TBAP	4
$-(CH2)_3-$	$COOCH_3$	159	CH_3CN[b]					1

[a]Solvent for ^{1}HNMR. [b]Solvent for chromatography. [c]Solvent for UV.

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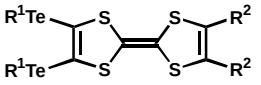

R^1	R^2	mp/°C	solubility[a]	E_1	E_2	E_3	CV (vs. Ag / AgCl)		reference
CH_3	H	102-103	$CHCl_3$						1
$-(CH_2)_3-$	H	176-177	$CHCl_3$-CS_2	0.36	0.72	0.82	PhCN	TBAP	1
$-(CH_2)_3-$	SCH_3	147-148	$CHCl_3$-CS_2	0.43	0.72	0.85	PhCN	TBAP	1
$-(CH_2)_3-$	CH_3	161-162 (dec.)	benzene	0.37	0.76	0.88	PhCN	TBAP	2
$-CH_2OCH_2-$	CH_3		PhCN[b]	0.38	0.47	0.88	PhCN		3

[a]Solvent for ^{1}HNMR. [b]Solvent for CV.

(1) K. Tsutsui, K. Takimiya, Y. Aso, and T. Otsubo, *Tetrahedron Lett.*, **38**, 7569 (1997).
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