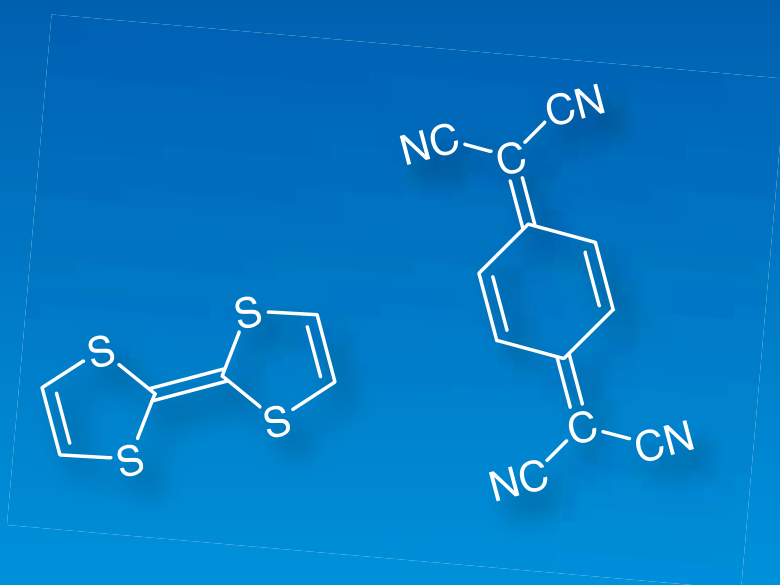


Charge Transfer Complexes for Organic Metals



Donors

TTF Derivatives

Acceptors

TCNQ Derivatives
Metal Dithiolenes

Other Donors & Acceptors

Synthetic Intermediates

Charge Transfer Complexes for Organic Metals

The discovery in 1973 of the metal-like electronic behavior of charge transfer complexes, consisting of an electron donor, Tetrathiafulvalene (TTF) and an electron acceptor, 7,7,8,8-Tetracyanoquinodimethane (TCNQ)¹⁾ has led to intensive studies of the organic metals.

In 1980 Jérôme²⁾, Bechgaard³⁾ and their co-workers have found that each complex of (TMTSF)₂PF₆ or (TMTSF)₂ClO₄ using TMTSF analogue of TTF, becomes a superconductor at very low temperatures. Afterwards, organic superconductors utilizing BEDT-TTF⁴⁾, M(dmit)₂⁵⁾ (M=Ni, Pd), etc. have successively been designed one after another. Moreover, the complexes κ-(BEDT-TTF)₂Cu[N(CN)₂]Br (Tc=11.6K)⁶⁾, and κ-(BEDT-TTF)₂Cu[N(CN)₂]Cl (0.3kbar; Tc=12.8K)⁷⁾ having higher Tc have been found and vigorous studies have been conducted toward the development of still higher Tc organic superconductor.⁸⁾

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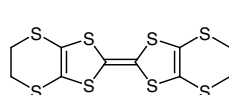
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Donors

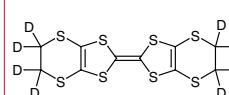
TTF Derivatives

B1200 100mg 1g 5g



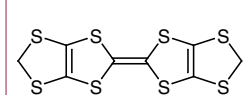
Bis(ethylenedithio)-tetrathiafulvalene (BEDT-TTF) [66946-48-3]

B1299 100mg



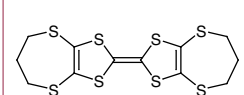
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B1218 100mg



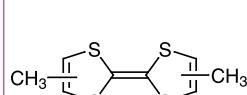
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B1244 100mg



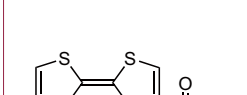
Bis(trimethylenedithio)-tetrathiafulvalene (BPDT-TTF) [66946-49-4]

D2067 100mg 1g



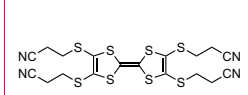
Dimethyltetrathiafulvalene (SDM-TTF)

F0285 1g



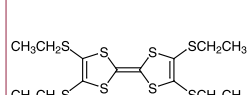
Formyltetrathiafulvalene (Formyl-TTF) [68128-94-9]

T2806 100mg 1g



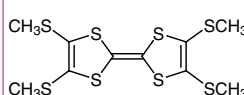
2,3,6,7-Tetrakis-(2-cyanoethylthio)-tetrathiafulvalene [132765-36-7]

T1571 100mg



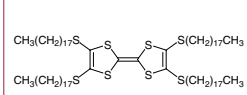
Tetrakis(ethylthio)tetrathiafulvalene (TET-TTF) [104515-79-9]

T1119 100mg



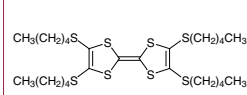
Tetrakis(methylthio)-tetrathiafulvalene (TMT-TTF) [51501-77-0]

T1143 100mg



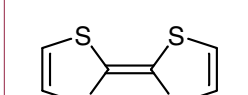
Tetrakis(octadecylthio)-tetrathiafulvalene (TODT-TTF) [105782-53-4]

T1205 100mg



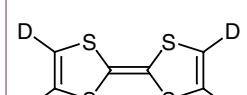
Tetrakis(pentylthio)-tetrathiafulvalene (TPT-TTF) [106920-29-0]

T0980 1g 5g 25g



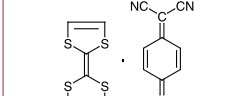
Tetrathiafulvalene (TTF) [31366-25-3]

T1377 100mg



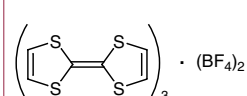
Tetrathiafulvalene-d₄ (TTF-d₄) [51751-16-7]

T2468 1g



Tetrathiafulvalene-7,7,8,8-Tetracyanoquinodimethane Complex [40210-84-2]

T1282 1g

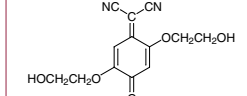


Tris(tetrathiafulvalene) Bis(tetrafluoroborate) Complex [55492-86-9]

Acceptors

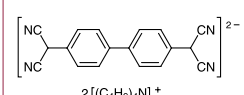
TCNQ Derivatives

B2309 1g



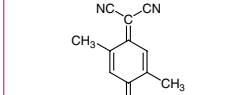
2,5-Bis(2-hydroxyethoxy)-7,7,8,8-tetracyanoquinodimethane [58268-29-4]

B1466 100mg



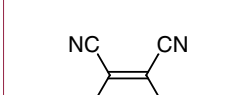
Bis(tetrabutylammonium) Tetracyanodiphenylmethane [68271-98-7]

D2021 100mg 500mg



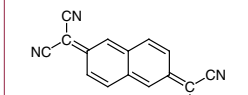
2,5-Dimethyl-7,7,8,8-tetracyanoquinodimethane [1487-82-7]

T0077 5g 25g



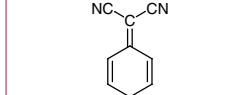
Tetracyanoethylene [670-54-2]

T1246 100mg

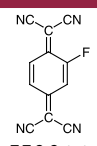
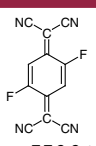
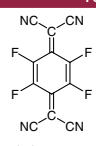
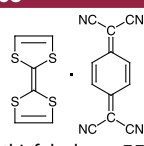
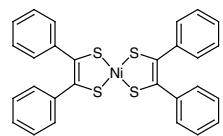
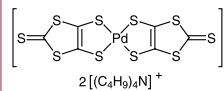
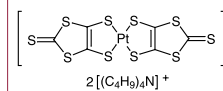
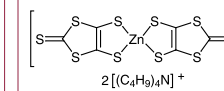
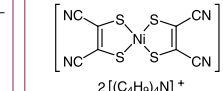
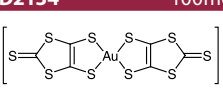
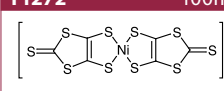
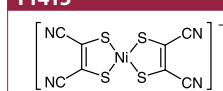
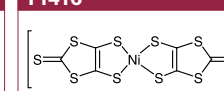
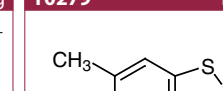
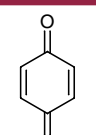
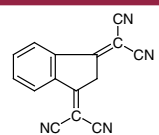
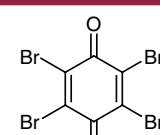
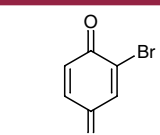
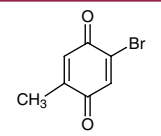
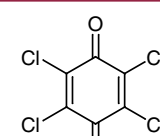
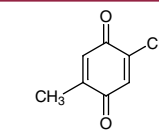
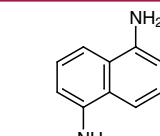
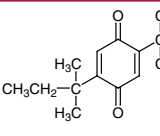
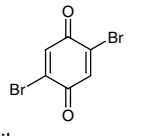
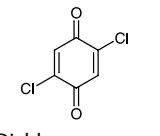
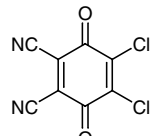
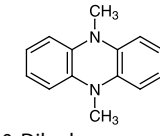
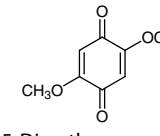
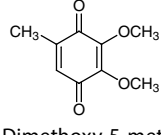
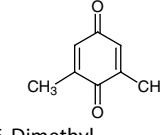
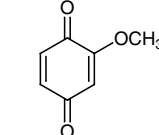
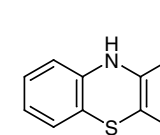
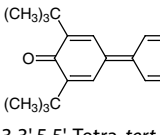
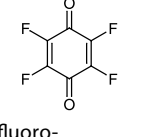
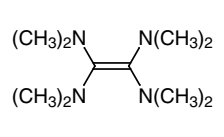
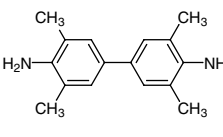
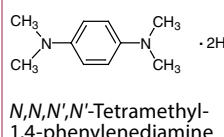
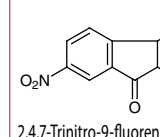


11,11,12,12-Tetracyanonaphtho-2,6-quinodimethane [6251-01-0]

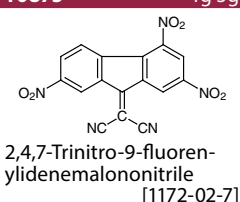
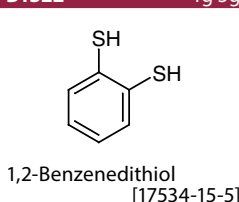
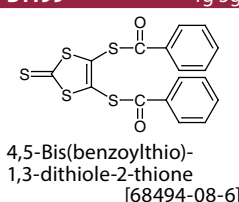
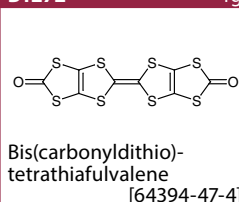
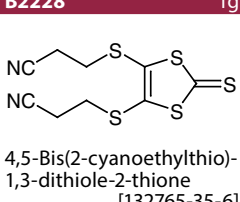
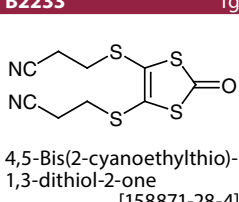
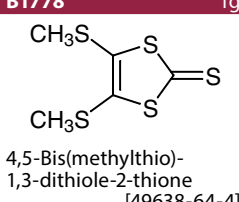
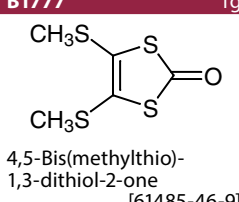
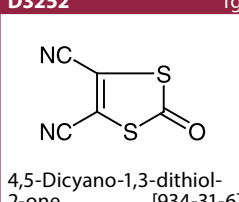
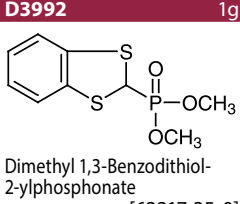
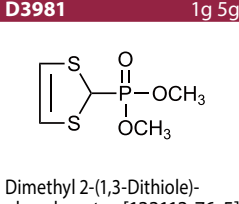
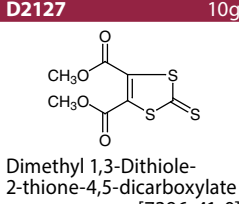
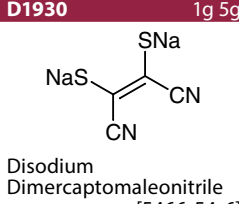
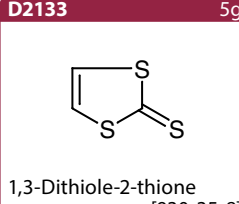
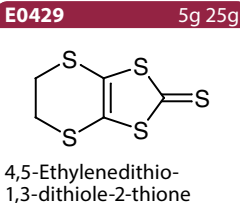
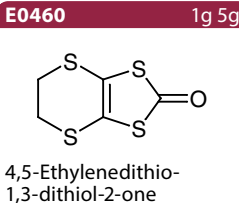
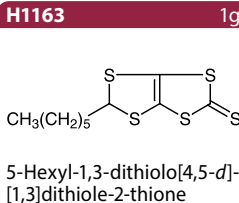
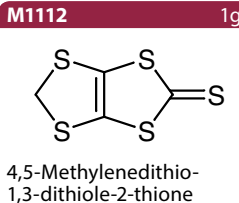
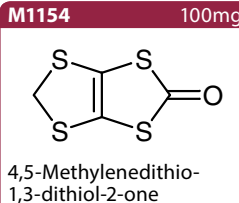
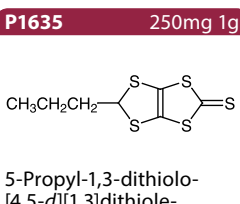
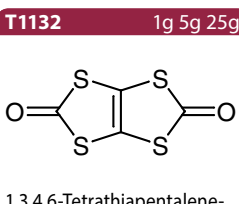
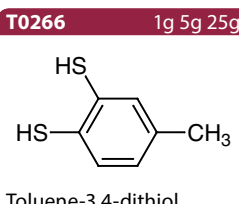
T0078 5g 25g



7,7,8,8-Tetracyanoquinodimethane (TCNQ) [1518-16-7]

F0509 100mg  2-Fluoro-7,7,8,8-tetracyanoquinodimethane [69857-37-0]	D3200 100mg  2,5-Difluoro-7,7,8,8-tetracyanoquinodimethane [73318-02-2]	T1131 100mg 1g  Tetrafluorotetracyanoquinodimethane (purified by sublimation) [29261-33-4]	T2468 1g  Tetrathiafulvalene - 7,7,8,8-Tetracyanoquinodimethane Complex [40210-84-2]	<h2 style="text-align: center;">Metal Dithiolenes</h2>	
B1350 1g 25g  Bis(dithiobenzil)nickel(II) [28984-20-5]	B1437 100mg 1g  Bis(tetrabutylammonium) Bis(1,3-dithiole-2-thione-4,5-dithiolato)palladium(II) [72688-90-5]	B1438 100mg  Bis(tetrabutylammonium) Bis(1,3-dithiole-2-thione-4,5-dithiolato)platinum(II) [72688-91-6]	B1221 5g 25g  Bis(tetrabutylammonium) Bis(1,3-dithiole-2-thione-4,5-dithiolato)zinc Complex [68449-38-7]		B1371 1g  Bis(tetrabutylammonium) Bis(maleonitriledithiolato)-nickel(II) Complex [18958-57-1]
D2134 100mg  Dioctadecyldimethylammonium Bis(1,3-dithiole-2-thione-4,5-dithiolato)aurate(III) [120141-26-6]	T1272 100mg  Tetrabutylammonium Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III) Complex [68401-87-6]	T1415 1g  Tetrabutylammonium Bis(maleonitriledithiolato)-nickel(III) Complex [55401-12-2]	T1416 1g  Tetrabutylphosphonium Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III) Complex [105029-70-7]		T0279 1g 5g  (Toluene-3,4-dithiolato)-zinc(II) [29726-21-4]
<h2 style="text-align: center;">Other Donors & Acceptors</h2>	B0089 25g 500g  1,4-Benzoquinone [106-51-4]	B1416 5g  1,3-Bis(dicyanomethylidene)indan [38172-19-9]	T0617 5g 25g  Bromanil [488-48-2]		B1601 1g 5g  2-Bromo-1,4-benzoquinone [3958-82-5]
	B1595 5g  2-Bromo-5-methyl-1,4-benzoquinone [13070-25-2]	T0061 25g 500g  Chloranil [118-75-2]	C1336 5g  2-Chloro-5-methyl-1,4-benzoquinone [19832-87-2]	D0101 25g 500g  1,5-Diaminonaphthalene [2243-62-1]	D2152 5g  2,5-Di-tert-amylbenzoquinone [4584-63-8]
D2249 1g 5g  2,5-Dibromo-1,4-benzoquinone [1633-14-3]	D0343 1g 5g  2,5-Dichloro-1,4-benzoquinone [615-93-0]	D1070 25g 250g  2,3-Dichloro-5,6-dicyano-1,4-benzoquinone [84-58-2]	D3392 1g  5,10-Dihydro-5,10-dimethylphenazine [15546-75-5]	D2250 5g 25g  2,5-Dimethoxy-1,4-benzoquinone [3117-03-1]	
D1956 1g 5g  2,3-Dimethoxy-5-methyl-1,4-benzoquinone [605-94-7]	D2234 1g 5g 25g  2,6-Dimethyl-1,4-benzoquinone [527-61-7]	M1045 1g 5g  Methoxybenzoquinone [2880-58-2]	P0106 25g 500g  Phenothiazine [92-84-2]	T1503 1g  3,3',5,5'-Tetra-tert-butyl-4,4'-diphenylquinone [2455-14-3]	
T0790 1g 5g  Tetrafluoro-1,4-benzoquinone [527-21-9]	T1221 5g 25g  Tetrakis(dimethylamino)ethylene [996-70-3]	T1023 1g 5g 25g  3,3',5,5'-Tetramethylbenzidine [54827-17-7]	T0151 1g 25g  N,N,N',N'-Tetramethyl-1,4-phenylenediamine Dihydrochloride [637-01-4]	T0499 5g  2,4,7-Trinitro-9-fluorenone (wetted with ca. 20% Water, containing 5g on a dry weight basis) [129-79-3]	

Charge Transfer Complexes for Organic Metals

<p>T0875 1g 5g</p>  <p>2,4,7-Trinitro-9-fluorenylidene malononitrile [1172-02-7]</p>	<p>Synthetic Intermediates</p>	<p>B1322 1g 5g</p>  <p>1,2-Benzenedithiol [17534-15-5]</p>	<p>B1199 1g 5g</p>  <p>4,5-Bis(benzoylthio)-1,3-dithiole-2-thione [68494-08-6]</p>	<p>B1272 1g</p>  <p>Bis(carbonyldithio)-tetrathiafulvalene [64394-47-4]</p>	
<p>B2228 1g</p>  <p>4,5-Bis(2-cyanoethylthio)-1,3-dithiole-2-thione [132765-35-6]</p>		<p>B2233 1g</p>  <p>4,5-Bis(2-cyanoethylthio)-1,3-dithiol-2-one [158871-28-4]</p>	<p>B1778 1g</p>  <p>4,5-Bis(methylthio)-1,3-dithiole-2-thione [49638-64-4]</p>	<p>B1777 1g</p>  <p>4,5-Bis(methylthio)-1,3-dithiol-2-one [61485-46-9]</p>	<p>D3252 1g</p>  <p>4,5-Dicyano-1,3-dithiol-2-one [934-31-6]</p>
<p>D3992 1g</p>  <p>Dimethyl 1,3-Benzodithiole-2-ylphosphonate [62217-35-0]</p>		<p>D3981 1g 5g</p>  <p>Dimethyl 2-(1,3-Dithiole)-phosphonate [133113-76-5]</p>	<p>D2127 10g</p>  <p>Dimethyl 1,3-Dithiole-2-thione-4,5-dicarboxylate [7396-41-0]</p>	<p>D1930 1g 5g</p>  <p>Disodium Dimercaptomaleonitrile [5466-54-6]</p>	<p>D2133 5g</p>  <p>1,3-Dithiole-2-thione [930-35-8]</p>
<p>E0429 5g 25g</p>  <p>4,5-Ethylenedithio-1,3-dithiole-2-thione [59089-89-3]</p>		<p>E0460 1g 5g</p>  <p>4,5-Ethylenedithio-1,3-dithiol-2-one [74962-29-1]</p>	<p>H1163 1g</p>  <p>5-Hexyl-1,3-dithiole[4,5-d]-[1,3]dithiole-2-thione [202126-51-0]</p>	<p>M1112 1g</p>  <p>4,5-Methylenedithio-1,3-dithiole-2-thione [70800-59-8]</p>	<p>M1154 100mg</p>  <p>4,5-Methylenedithio-1,3-dithiol-2-one [85720-62-3]</p>
<p>P1635 250mg 1g</p>  <p>5-Propyl-1,3-dithiole[4,5-d][1,3]dithiole-2-thione [202126-48-5]</p>		<p>T1132 1g 5g 25g</p>  <p>1,3,4,6-Tetrathiapentalene-2,5-dione [64394-45-2]</p>	<p>T0266 1g 5g 25g</p>  <p>Toluene-3,4-dithiol [496-74-2]</p>		

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Fax : 021-6712-1385
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Tel : +81 (0)3-5640-8878
Fax : +81 (0)3-5640-8902
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