

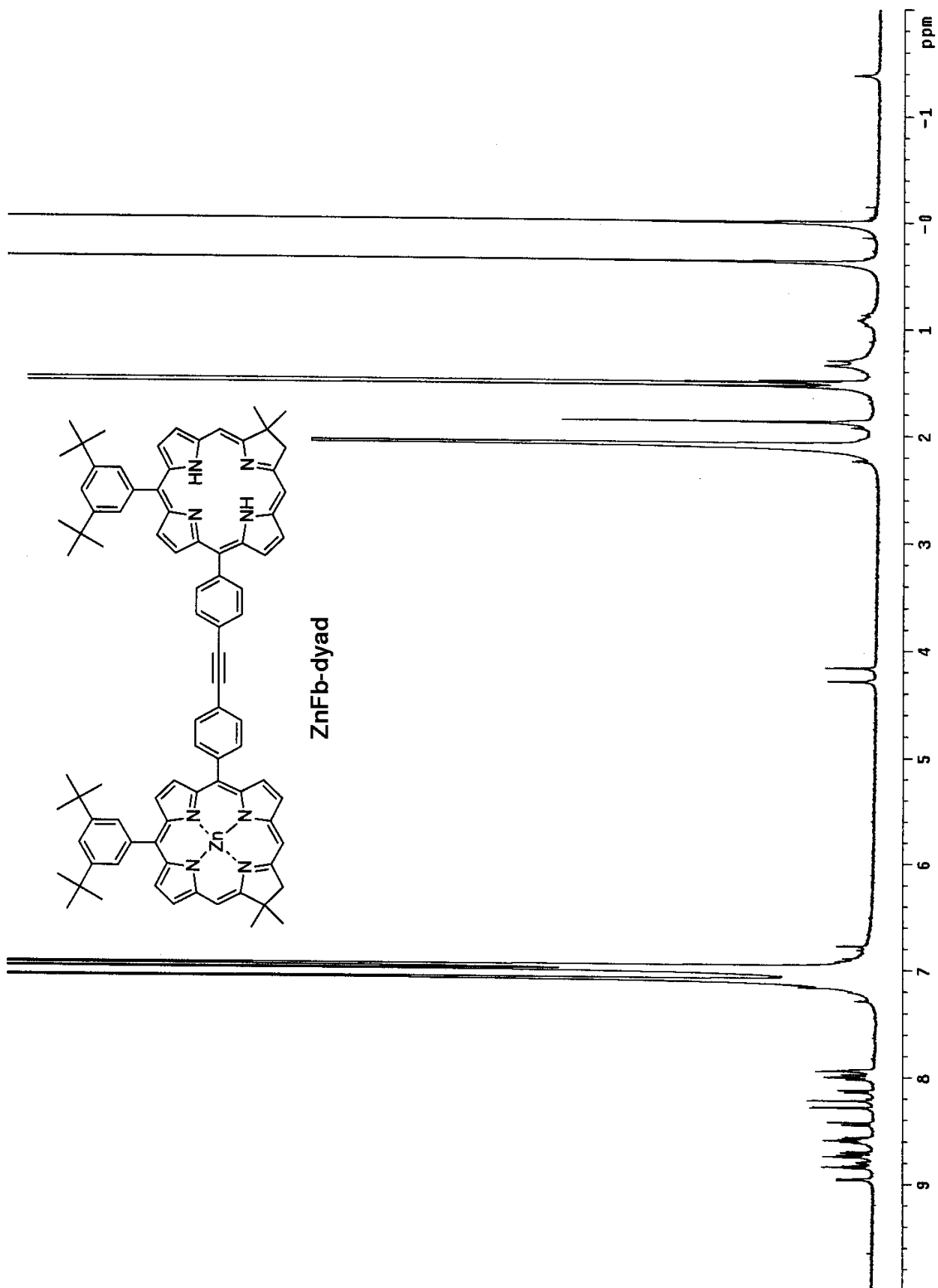
Supporting Information for:

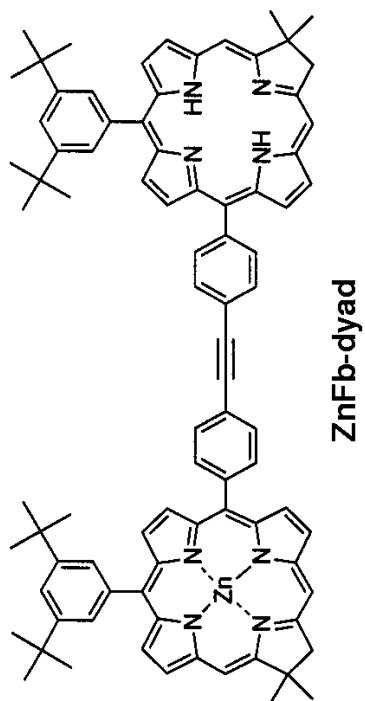
**Comparison of Excited-State Energy Transfer in Array of Hydroporphyrins
(Chlorins, Oxochlorins) Versus Porphyrins: Rates, Mechanisms, and Design Criteria**

Masahiko Taniguchi, Doyoung Ra, Christine Kirmaier, Eve K. Hindin,
Jennifer K. Schwartz, James R. Diers, Robert S. Knox, David F. Bocian,
Jonathan S. Lindsey, and Dewey Holten

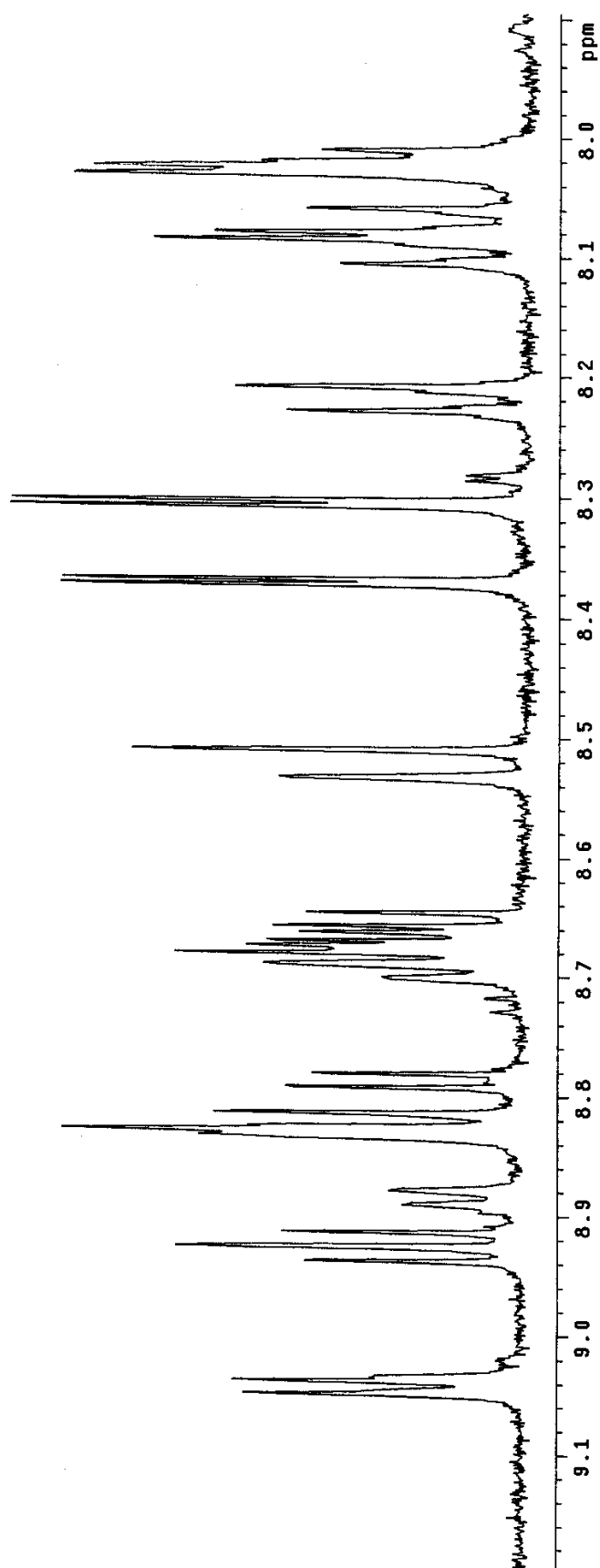
Table of contents:

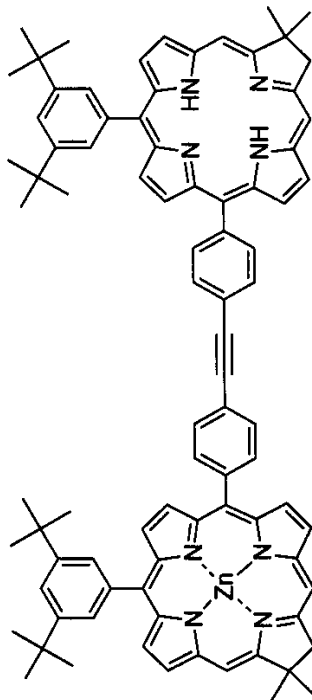
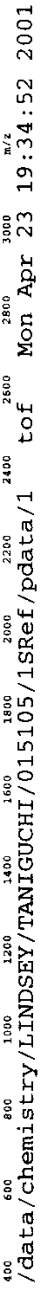
Experimental data for all chlorin and oxochlorin dyads.





ZnFb-diyad





ZnFb-dyad

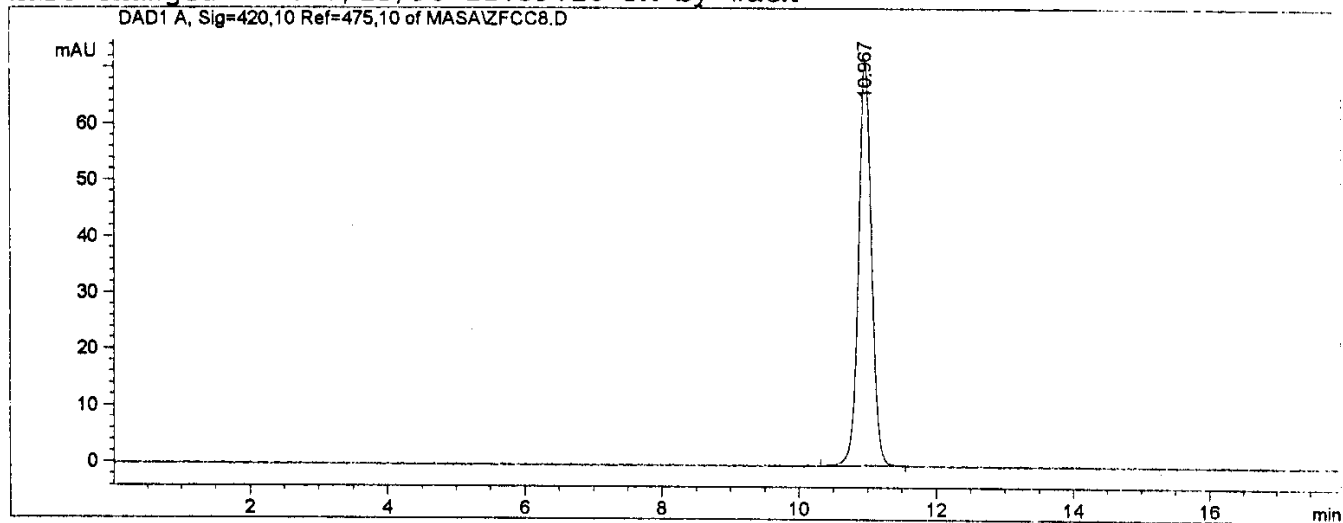
INSTRUM	TOP
OPID	Unknown
SHPNAM	015105
ACQ DATE	Mon Apr 23 19:31:38 2001
DATA/Chemistry/LINSET/TAN/GUCHI	
POLAR	Vertical
POLE	Polarizer
REFLECTOR	Reflector
TD	40000
MGNORS	86
SNOWTS1	0
SNOWTS2	0
SNOWTS3	0
DELAY	0.00 [ms]
U1s1	0.00 [ms]
U1s2	20.00 [kv]
uref1	18.50 [kv]
uref2	9.00 [kv]
UnHans	10.00 [kv]
Redu11	0.00 [kv]
IudaLc1	1.55 [kv]
IudaR	1.55 [kv]
IudeF1	2.00 [Hz]
IudePHZ	2.00 [Hz]
MATTEN	36.0
NLI	207463.542
MLT	35.0
MIL3	0.000
HITERO	no
GIBSON	yes
SHORT	short
DEFLON	no
BLANSRD	no
HLANSRD	no
ULANSRD	no
ZLANSRD	no
DPMASS	510.84
UPMSS	200.00 [Da]
RENDVAL	0.33
LENDVAL	0.28
CMT1	foldamer-sec 91.
CMT2	2nd atn316 100 shots

ZFCC SEC

=====
Injection Date : 4/23/01 1:33:01 AM
Sample Name : ZFCC-sec
Acq. Operator : masa

Seq. Line : -
Vial : 100
Inj : -
Inj Volume : 20 µl

Method : C:\HPCHEM\1\METHODS\ARUN.M
Last changed : 7/15/98 11:39:10 PM by wack



=====
Area Percent Report
=====

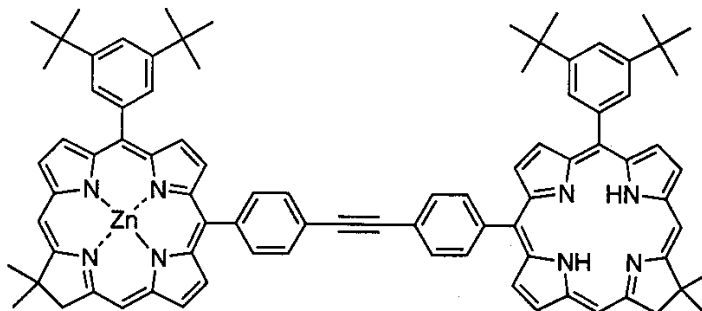
Sorted by Signal

Multiplier : 1.000000
Dilution : 1.000000

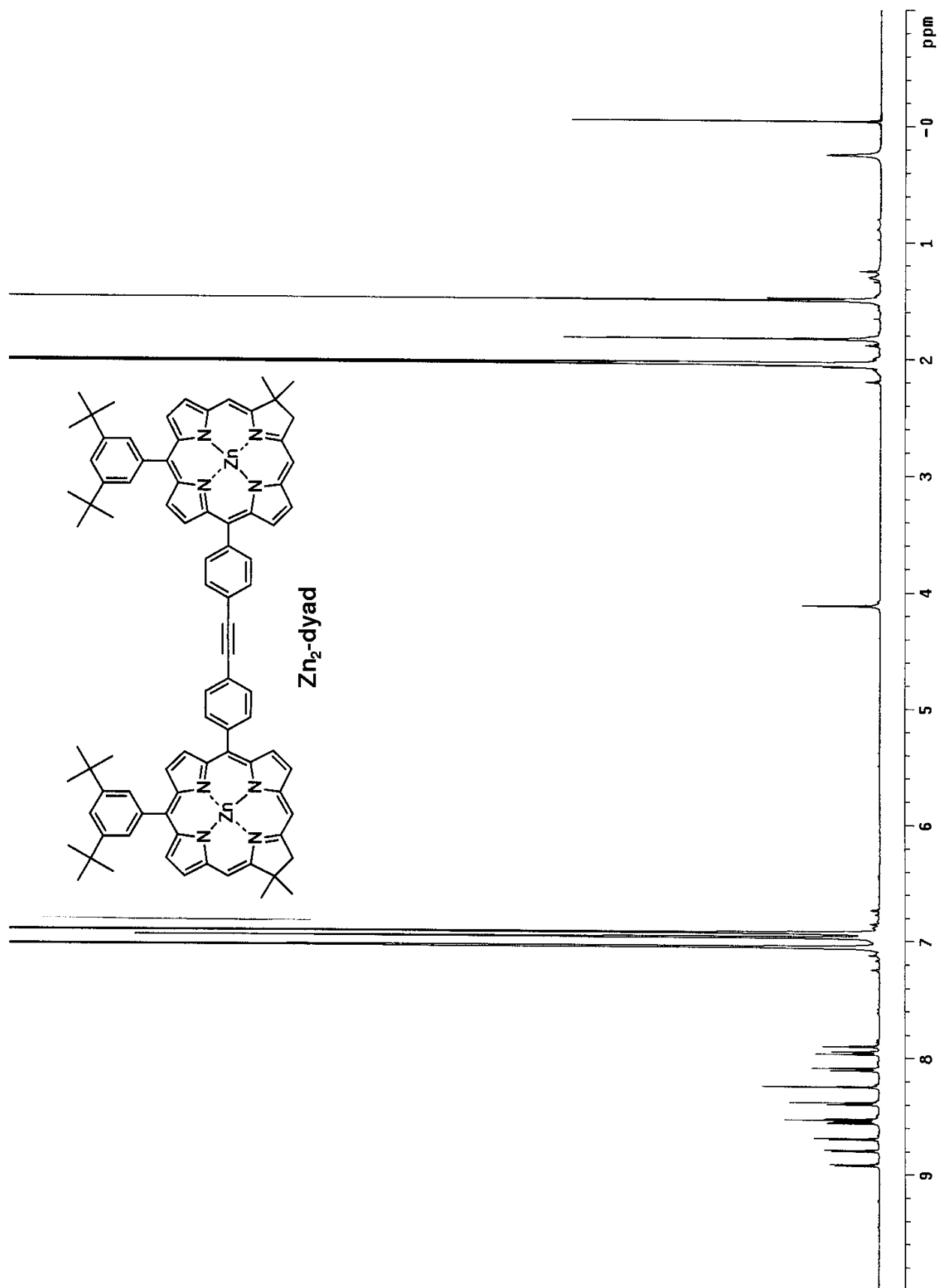
Signal 1: DAD1 A, Sig=420,10 Ref=475,10

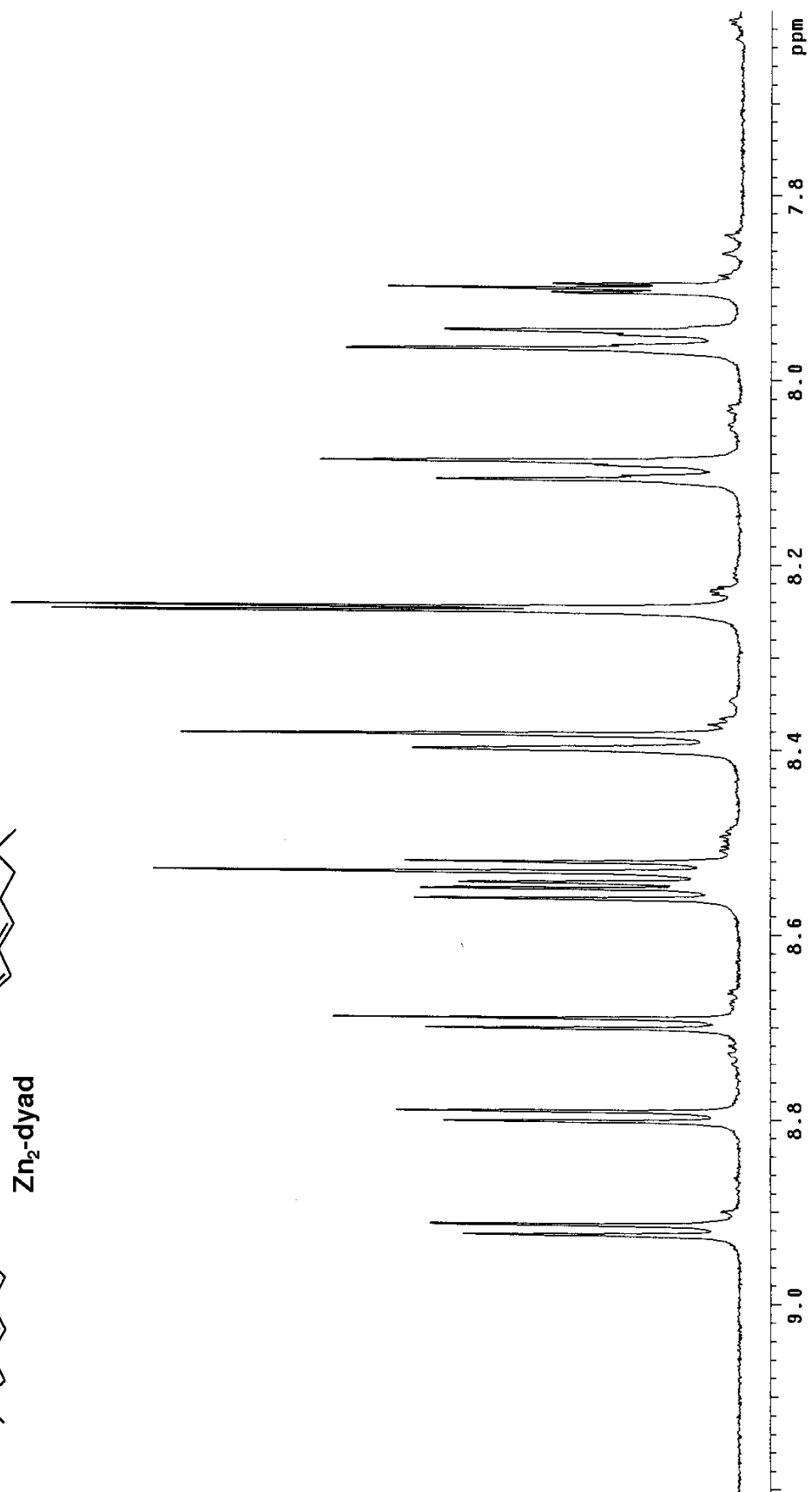
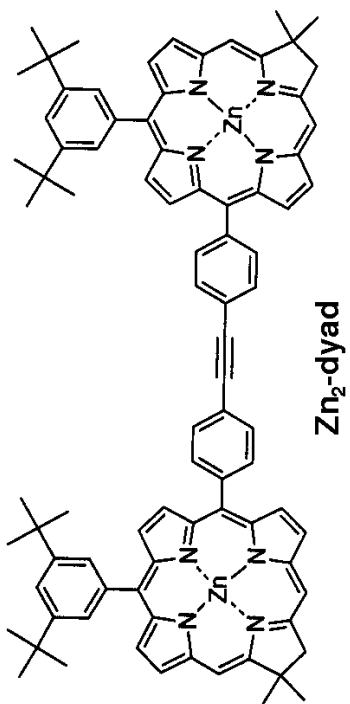
Peak #	RT [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.967	BB	0.203	943.66339	71.48383	100.0000

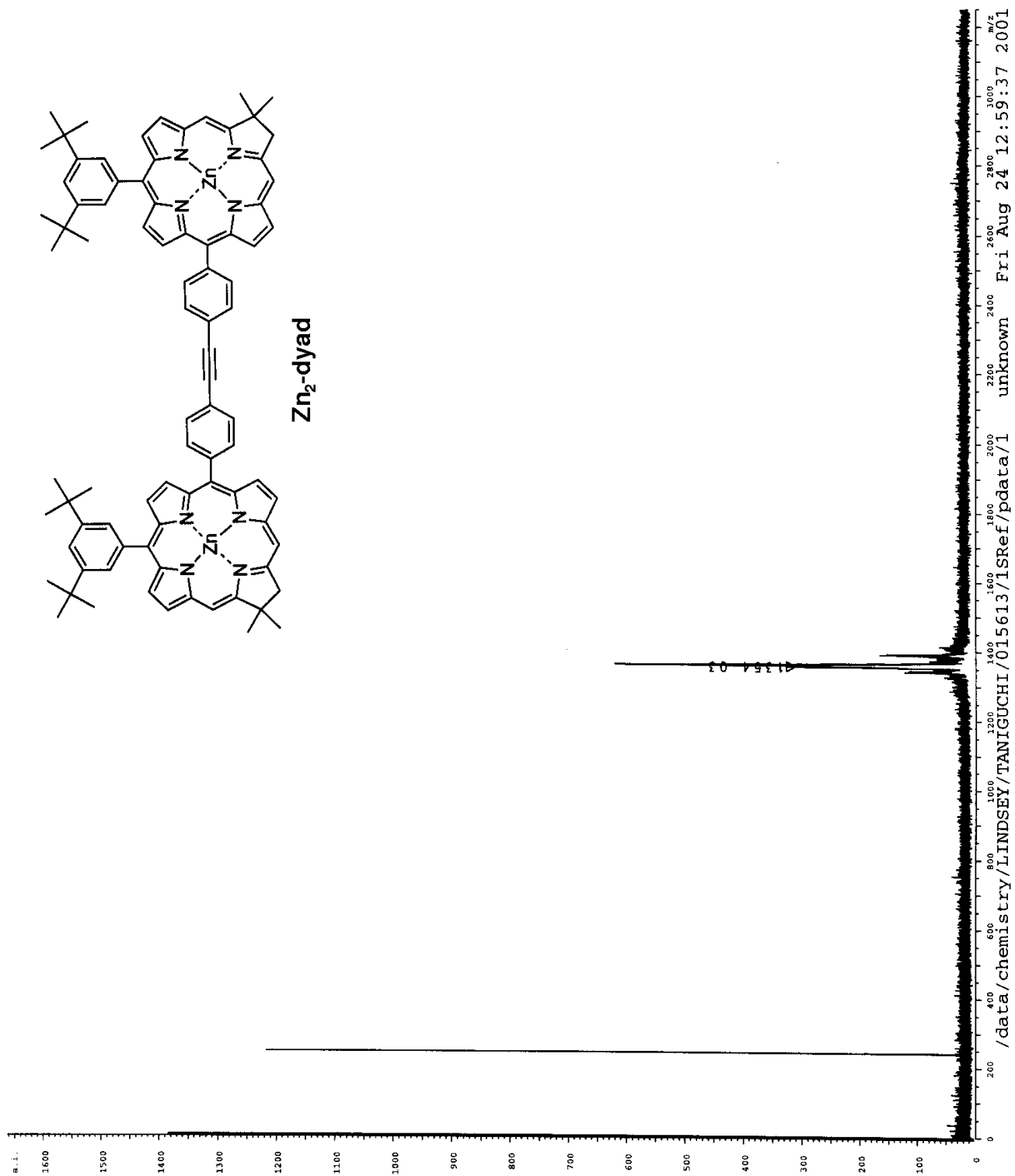
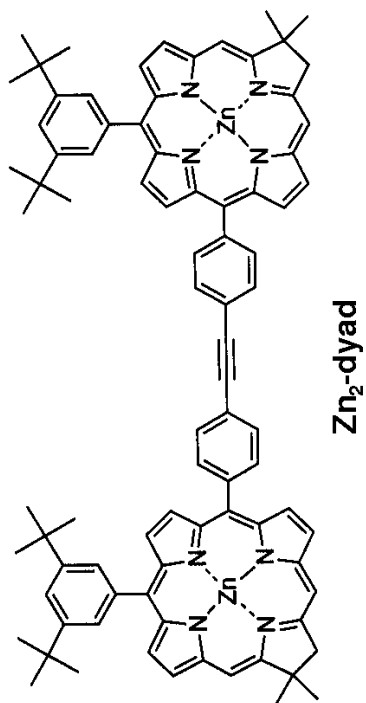
Totals : 943.66339 71.48383



ZnFb-dyad





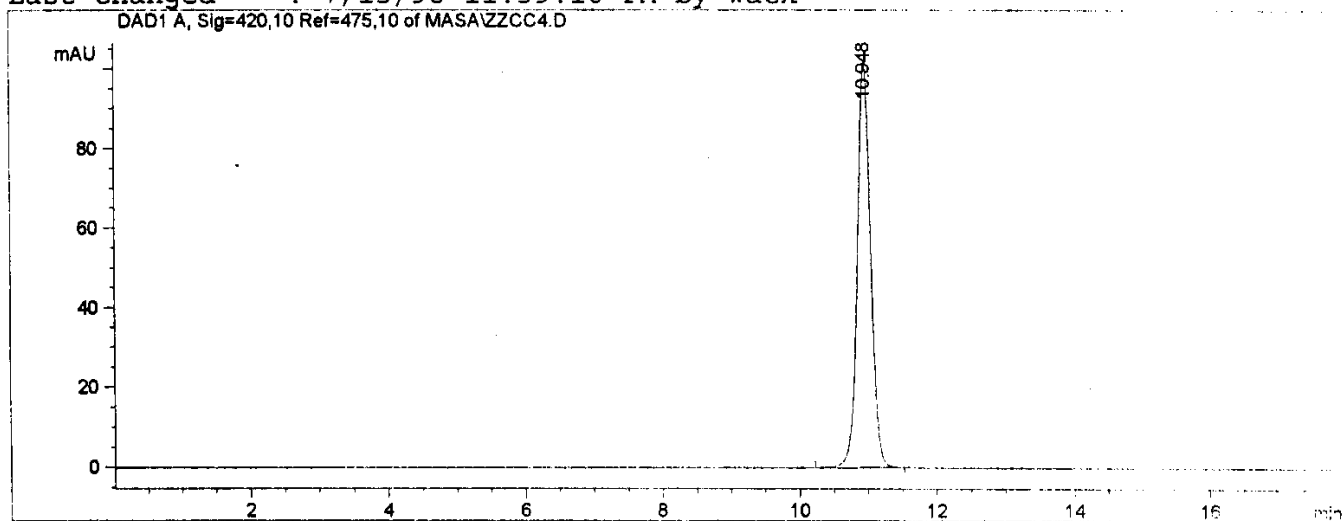


ZZCC4

=====
Injection Date : 6/12/01 12:20:16 AM
Sample Name : sec5
Acq. Operator : arun

Seq. Line : -
Vial : 100
Inj : -
Inj Volume : 20 µl

Method : C:\HPCHEM\1\METHODS\ARUN.M
Last changed : 7/15/98 11:39:10 PM by wack



=====
Area Percent Report
=====

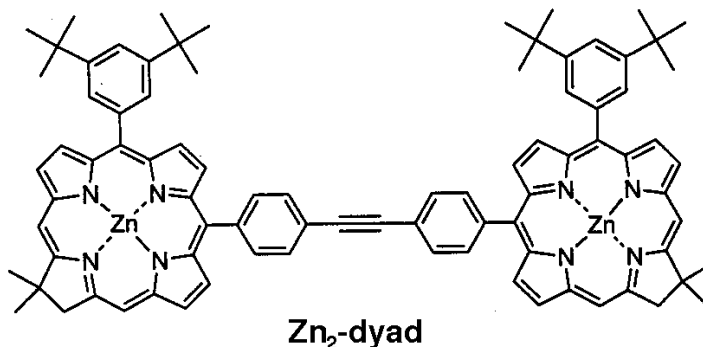
Sorted by Signal

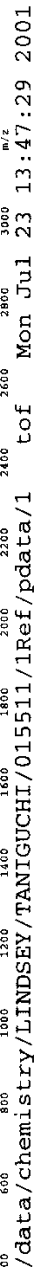
Multiplier : 1.000000
Dilution : 1.000000

Signal 1: DAD1 A, Sig=420,10 Ref=475,10

Peak #	RT [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.948	BB	0.207	1368.84778	101.64908	100.0000

Totals : 1368.84778 101.64908

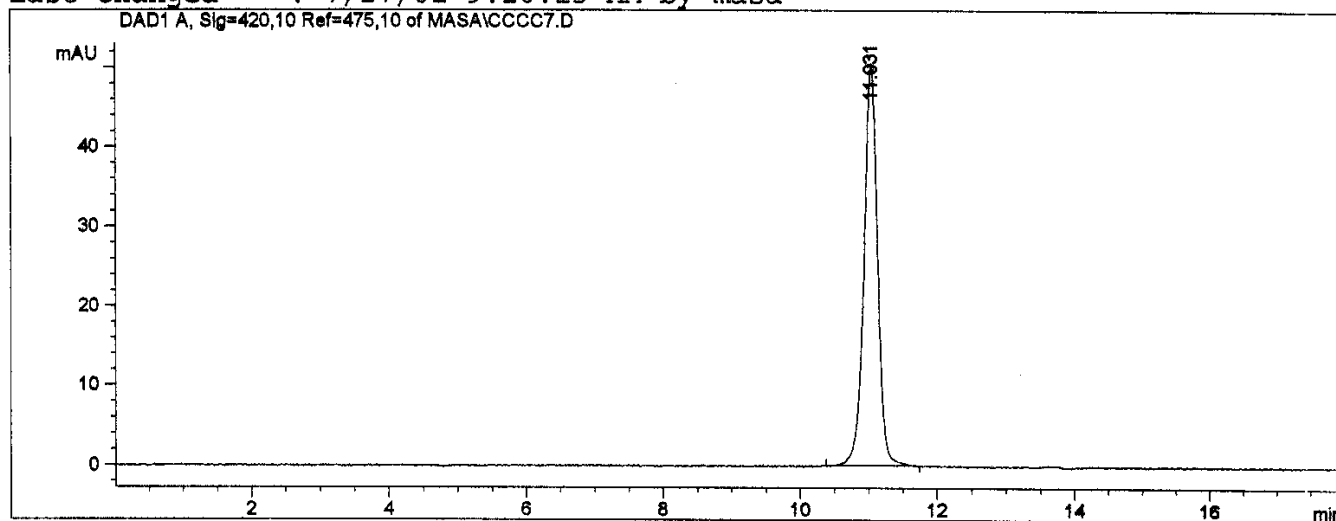


[illegible]

Cu-Chl-Cu-Chl, SEC toluene

```
=====
Injection Date   : 7/27/01 11:15:59 AM      Seq. Line   :    -
Sample Name      : CCCC7                    Vial         :   100
Acq. Operator    : masa                     Inj          :    -
                                           Inj Volume   : 20 µl
=====
```

Method : C:\HPCHEM\1\METHODS\ARUN.M
Last changed : 7/27/01 9:10:13 AM by masa



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Area Percent Report
=====

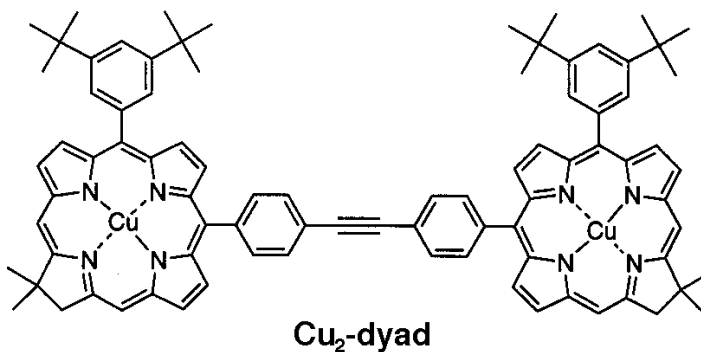
Sorted by Signal

Multiplier : 1.000000
Dilution : 1.000000

Signal 1: DAD1 A, Sig=420,10 Ref=475,10

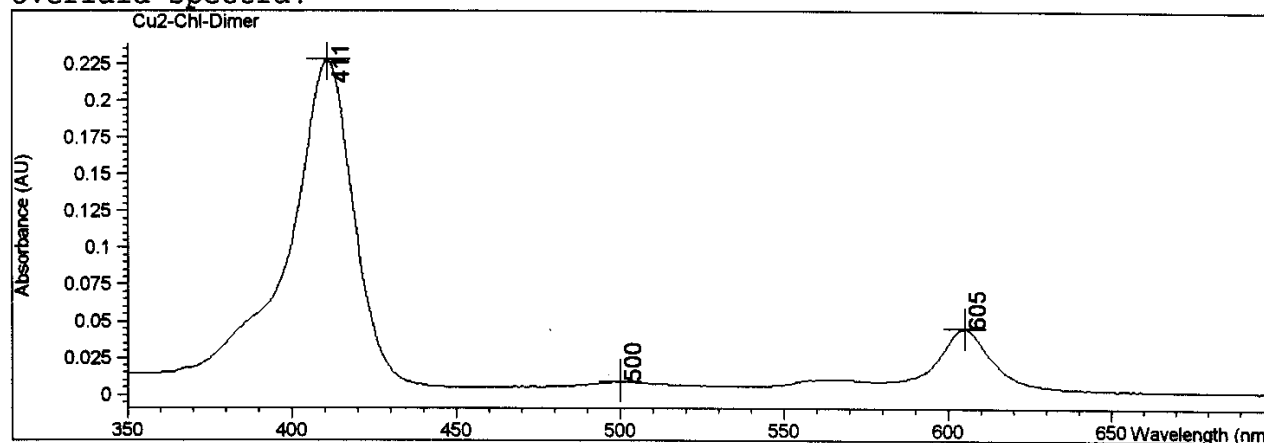
Peak #	RT [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	11.031	BB	0.212	699.86420	50.51450	100.0000

Totals : 699.86420 50.51450



Method file : <untitled>
 Information : Default Method
 Data File : <untitled>

Overlaid Spectra:

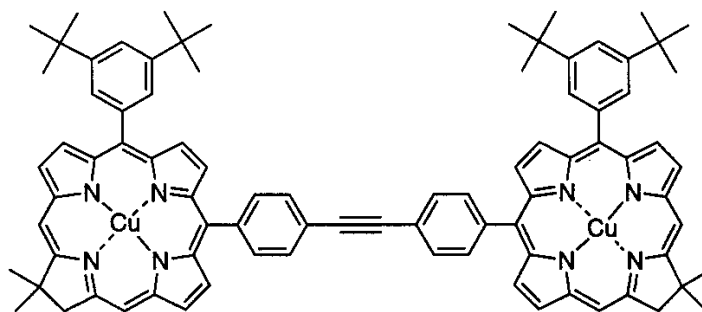


#	Name	Peaks (nm)	Abs (AU)
1	Cu2-Chl-Dimer	411.0	0.22794
1		605.0	4.5483E-2
1		500.0	9.1009E-3

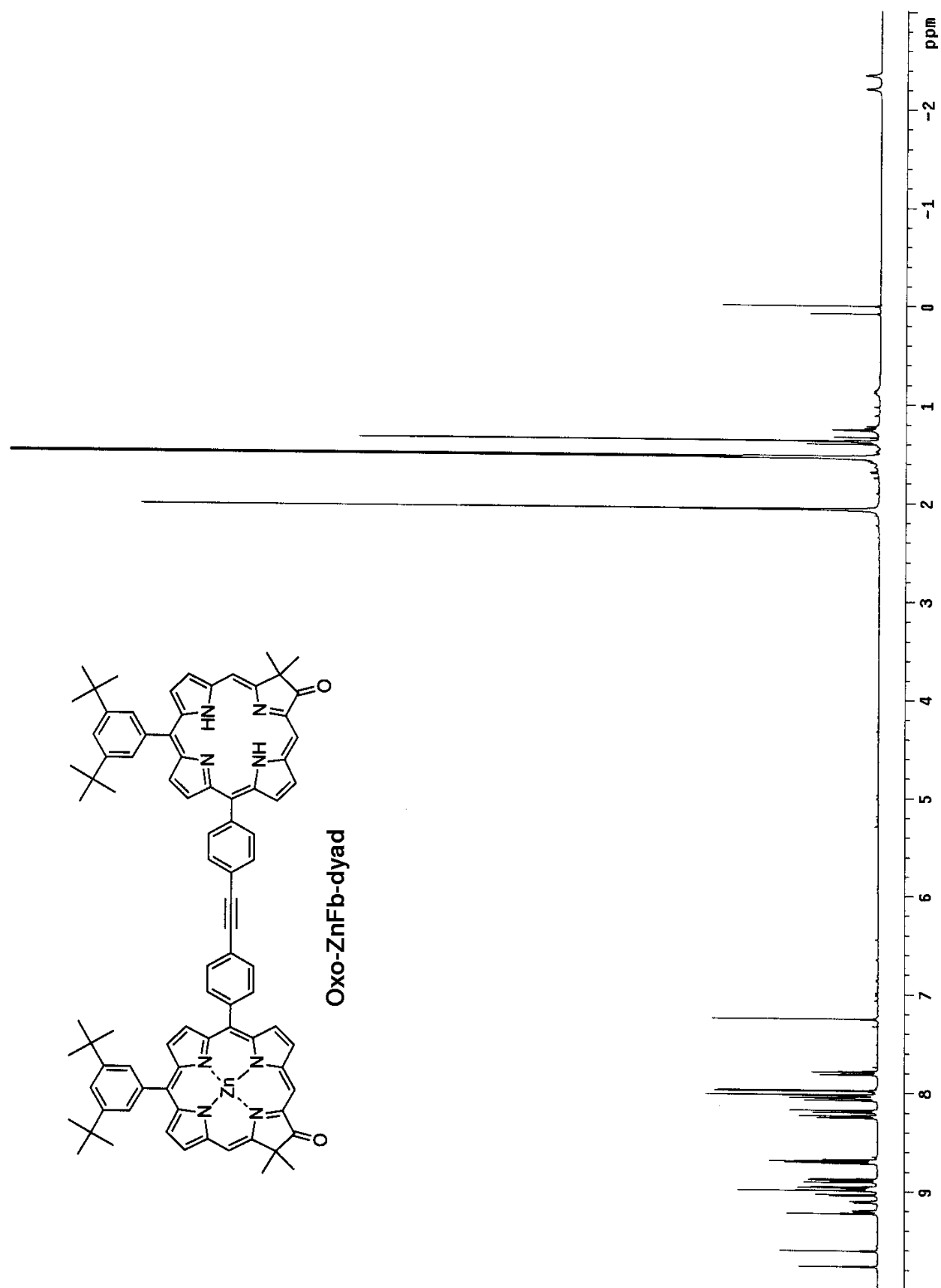
Report generated by :

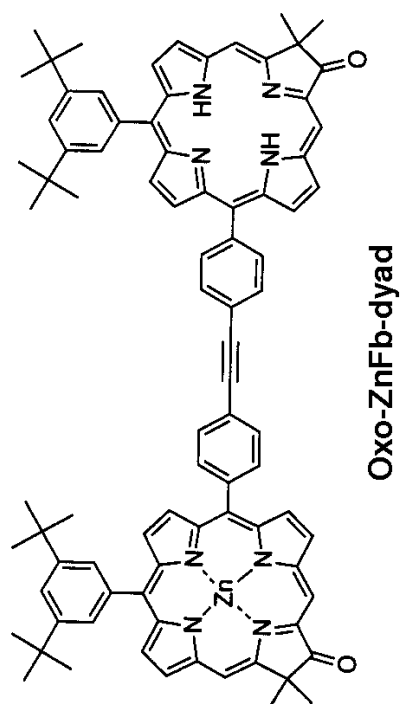
Signature:

*** End Spectrum/Peak Report ***

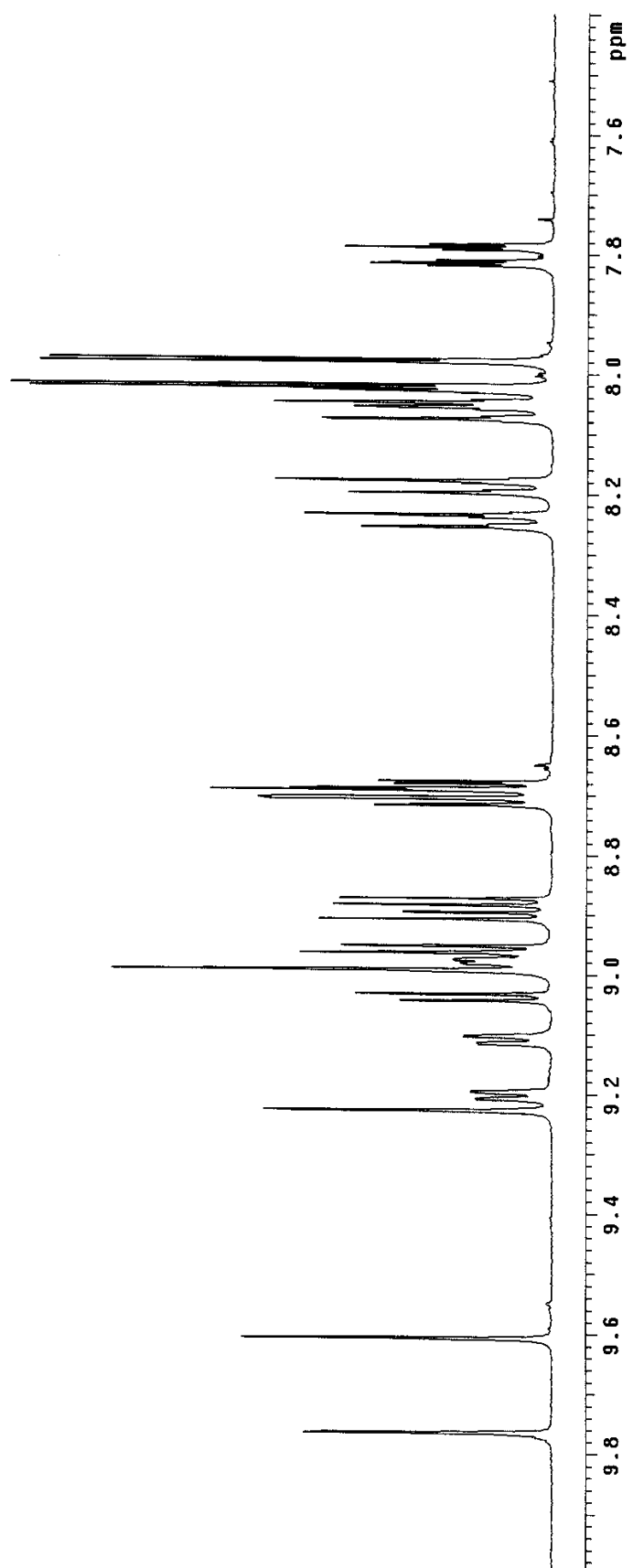


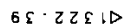
Cu₂-dyad





Oxo-ZnFb-diyad





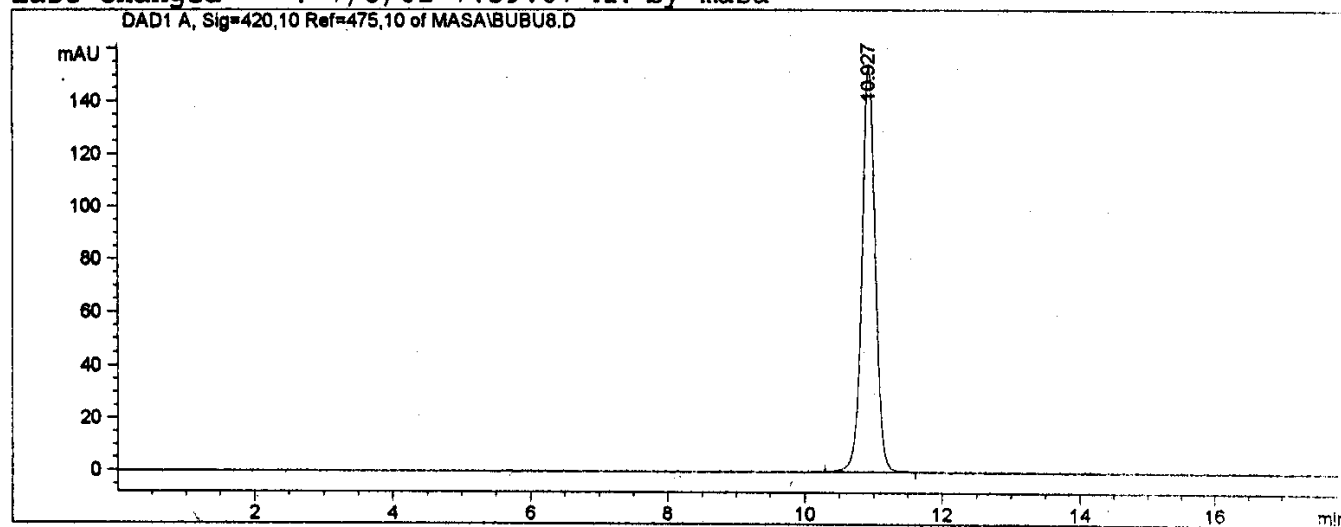
Oxo-ZnFb-dyad

Oxo-Zn-Fb-dimer pure

=====
Injection Date : 7/8/01 8:17:51 AM
Sample Name : bubu8
Acq. Operator : masa

Seq. Line : -
Vial : 100
Inj : -
Inj Volume : 20 µl

Method : C:\HPCHEM\1\METHODS\ARUN.M
Last changed : 7/8/01 7:59:07 AM by masa



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Area Percent Report
=====

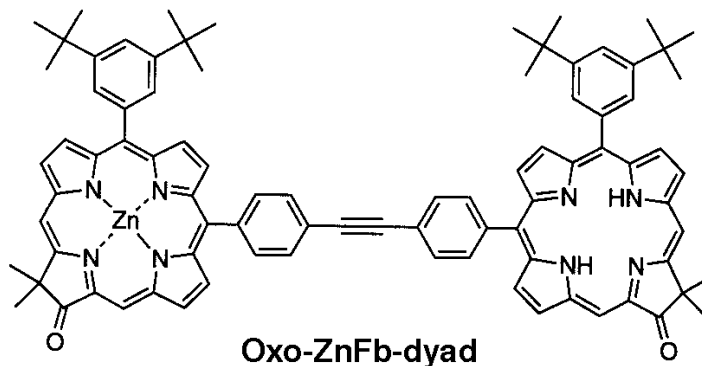
Sorted by Signal

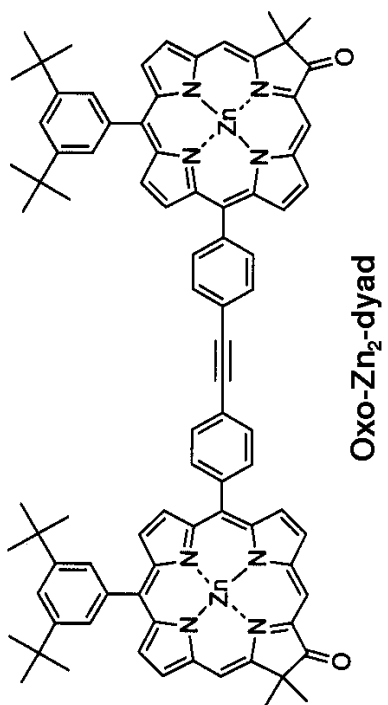
Multiplier : 1.000000
Dilution : 1.000000

Signal 1: DAD1 A, Sig=420,10 Ref=475,10

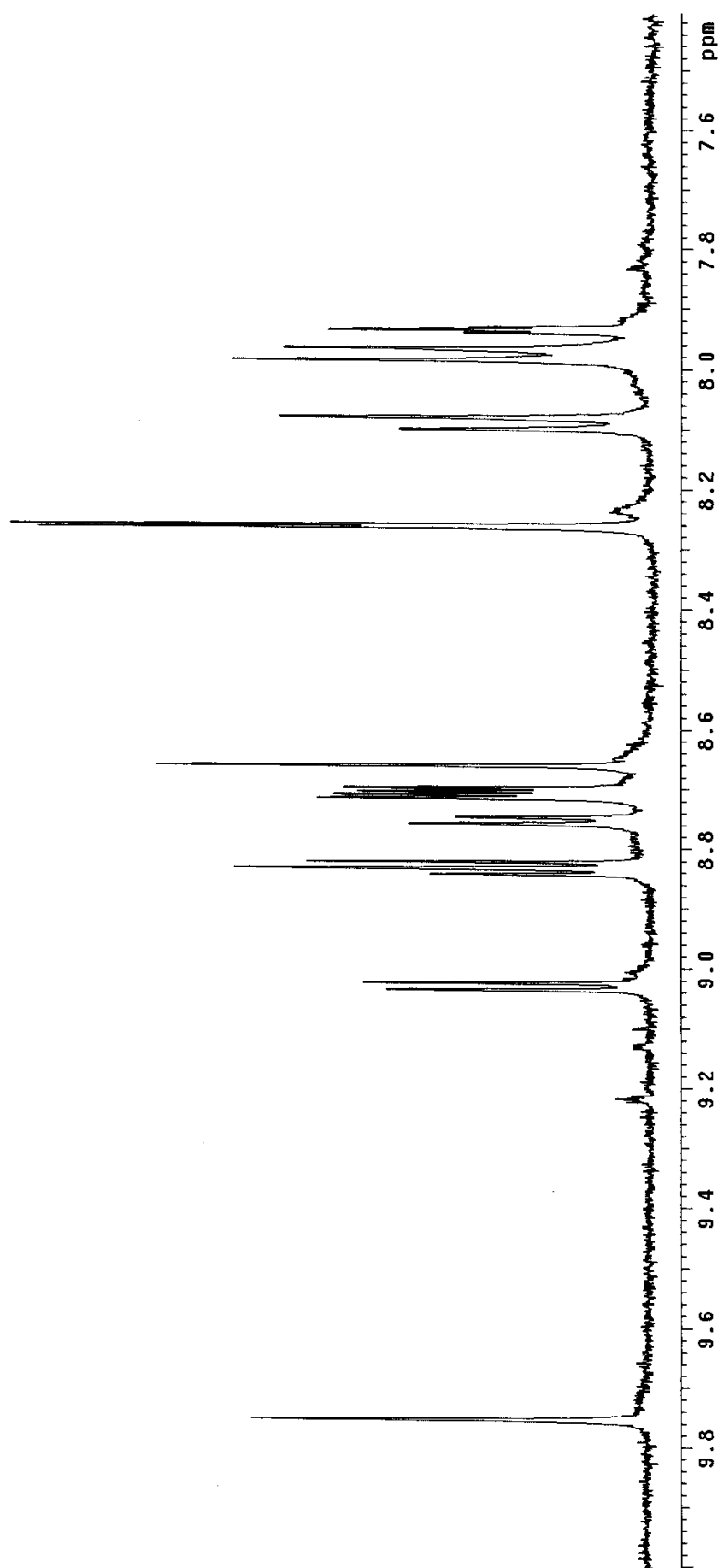
Peak #	RT [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.927	BB	0.208	2083.15771	154.35667	100.0000

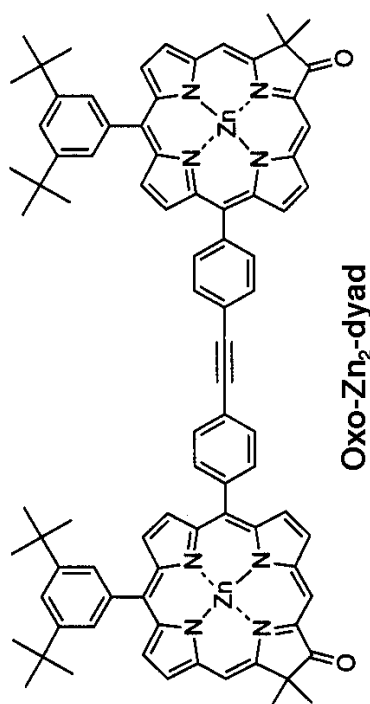
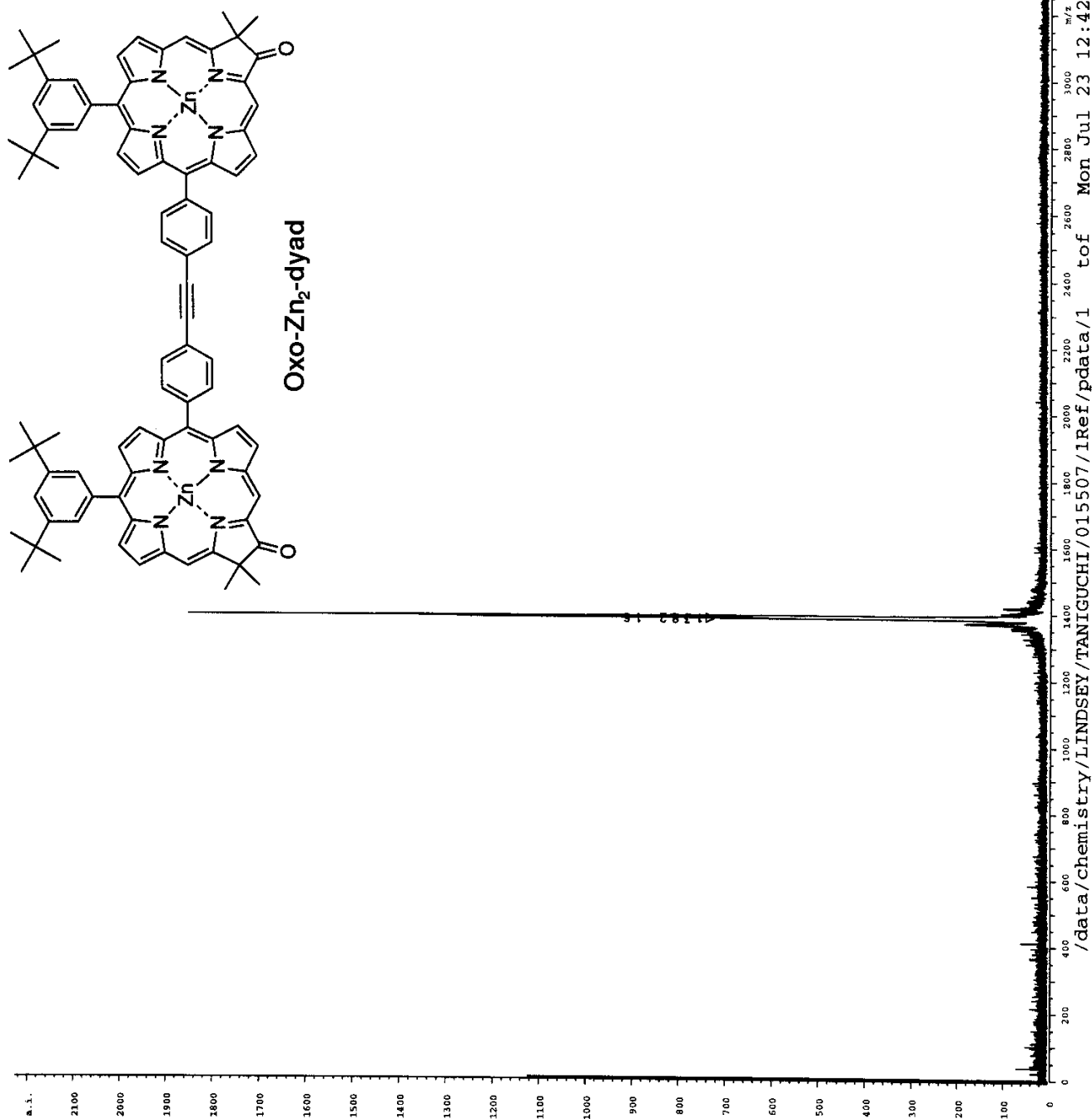
Totals : 2083.15771 154.35667





Oxo-Zn₂-dyad





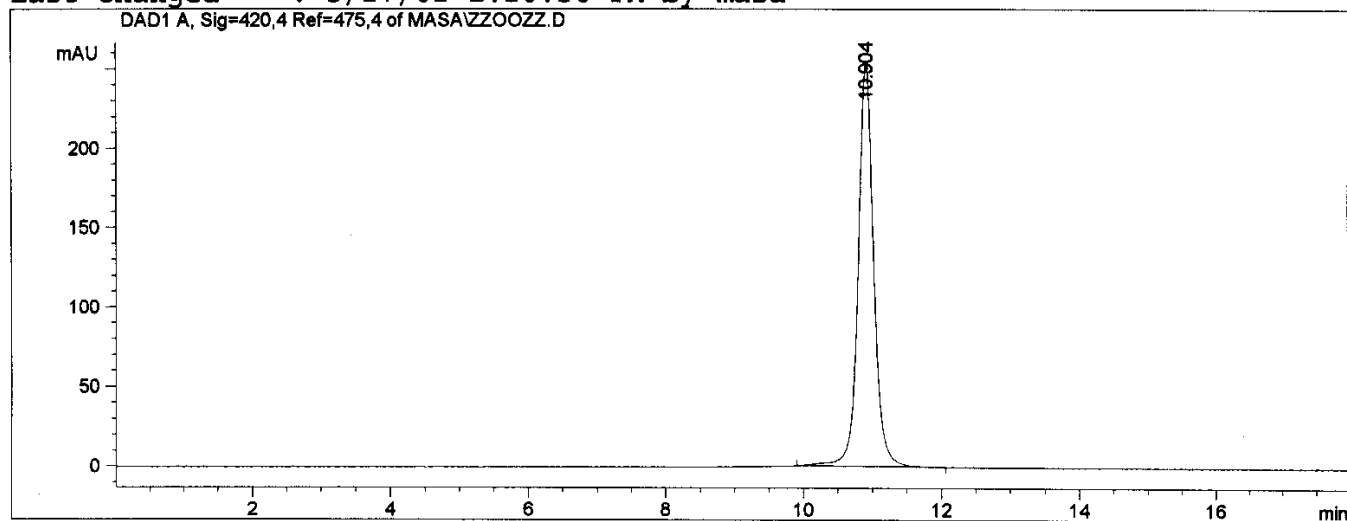
Oxo-Zn₂-dyad

INSTRUM TOP
OpId N. Srinivasan
SHPNAM 015507
AQ DATE Mon Jul 23 12:41:08 2001
APPROV /data/chemistry/LINDSEY/TANIGUCHI
POLARI POS
AQCP_m Reflector
TD 40000
NOISYPS 50
SNOPT51 0
SNOPT52 0
SNOPT53 0
DELAY 0.00 [ns]
Uis1 20.00 [KV]
Uis2 18.70 [KV]
Uref1 7.50 [KV]
Uis3 7.50 [KV]
Uis4 10.00 [KV]
RefPull 0.00 [KV]
Usetic 1.50 [KV]
Usetic 1.50 [KV]
Usetic 2.00 [KV]
REPHE 1.00 [Hz]
ATTEN 2065938.0
ML1 327.114
ML2 0.000
ML3 0.000
HITURBO no
CHEN yes
CHEN short
DEFION no
FLANEND no
FLANEND no
FLANEND no
FLANEND no
DPMAS 510.84
DPMAS 700.00 [Da]
REMOVAL 0.13
REMOVAL 0.28
REMOVAL 0.28
CMT1 Zn-oxo-dimer
CMT2 Attn38. shots50

ZnZnOxoOxo

```
=====
Injection Date   : 4/25/02 3:38:46 PM          Seq. Line :   -
Sample Name      : schiff base 1                Vial   : 100
Acq. Operator    : masa                        Inj    :   -
                                           Inj Volume : 20 µl
=====
```

```
Method           : C:\HPCHEM\1\METHODS\ARUN.M
Last changed      : 3/27/02 1:20:56 PM by masa
```



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=====
                        Area Percent Report
=====
```

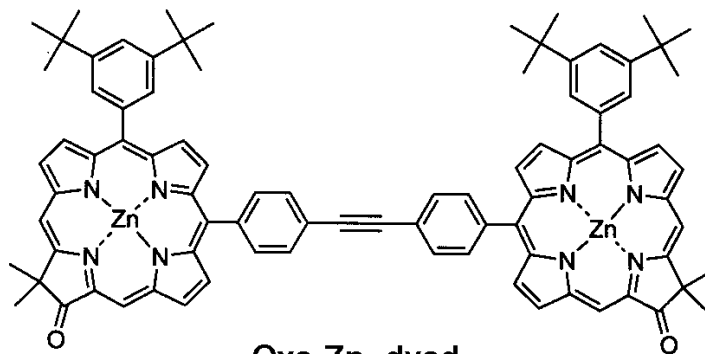
Sorted by Signal

```
Multiplier      : 1.000000
Dilution         : 1.000000
```

Signal 1: DAD1 A, Sig=420,4 Ref=475,4

Peak #	RT [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.904	BB	0.238	3987.39526	253.54179	100.0000

```
Totals :                               3987.39526    253.54179
=====
```



Oxo-Zn₂-dyad

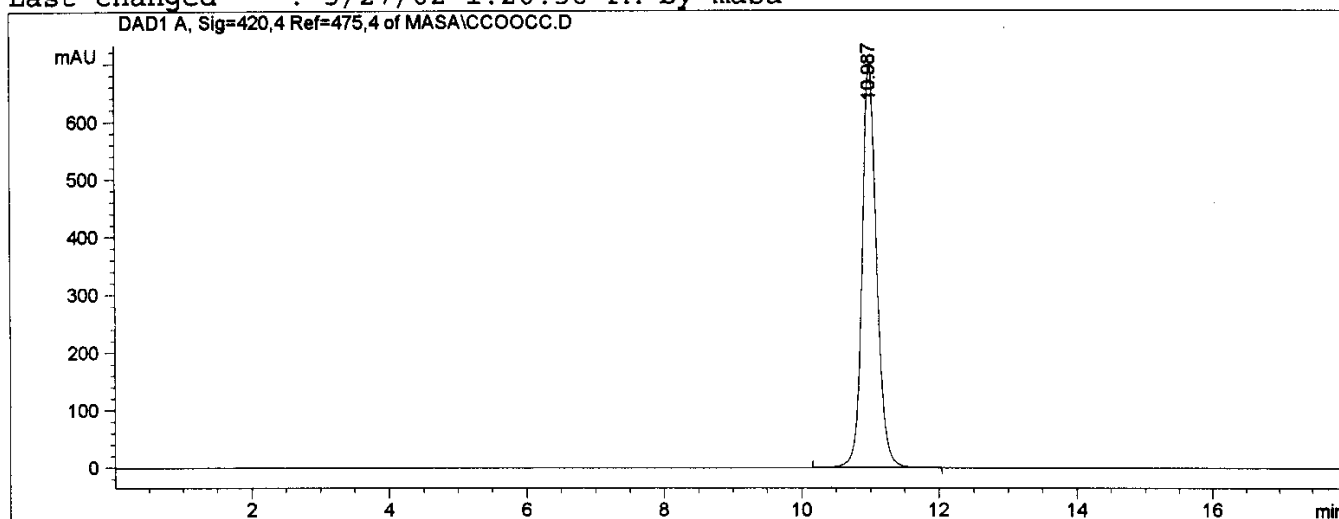
INSTRUM	TOP
OPID	N. Srihivaraan
SHEPAM	015513
AQ_DATE	Mon Jul 23 14:01:56 2001
FILENAM	/data/chemistry/LINSEY/TANIGUCHI
ADORN	POTENTIAL
ADORN_m	Reflector
TID	4000
NSLOTS	72000
SNOWT51	0
SNOWT52	0
SNOWT53	0
DMUAY	0.00 [ns]
Uls1	20.00 [kV]
Uls2	18.70 [kV]
Uref1	9.00 [kV]
Uref2	9.00 [kV]
Unlms	10.00 [kV]
RefFull	0.00 [kV]
UdeL1	1.50 [kV]
UdeL2	1.50 [kV]
UdeH1	2.00 [kV]
UdeH2	2.00 [kV]
REP4Z	1.00 [Hz]
ATTEN	42.0
MU1	2065947.190
MU2	342.0
MU3	0.000
HITRERO	no
GIBERN	yes
DEBYAN	short
REPERAN	no
RLANSRD	no
ULANSRD	no
USERSRD	no
DPMAS3	510.84
DPMAS5	700.00 [Dps]
RENDAVL	0.33
LENDAVL	0.28
ZENDOV	0.91
CNTRM	CU-OXO-dipr
ATM336	spect#200
CW22	

Cu2-Oxo-Dyad

Injection Date : 4/25/02 5:08:57 PM
 Sample Name : CuCuOXOXXO
 Acq. Operator : masa

Seq. Line : -
 Vial : 100
 Inj : -
 Inj Volume : 20 µl

Method : C:\HPCHEM\1\METHODS\ARUN.M
 Last changed : 3/27/02 1:20:56 PM by masa



Area Percent Report

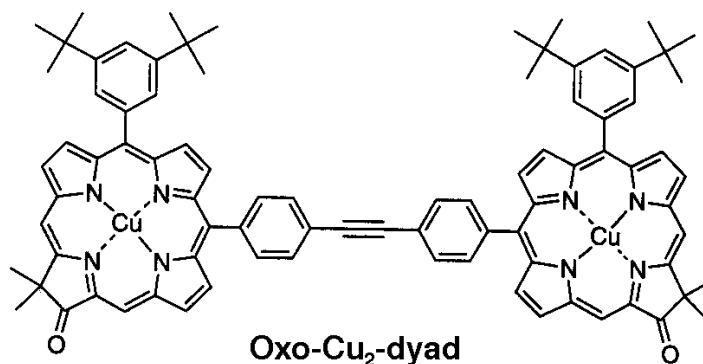
Sorted by Signal

Multiplier : 1.000000
 Dilution : 1.000000

Signal 1: DAD1 A, Sig=420,4 Ref=475,4

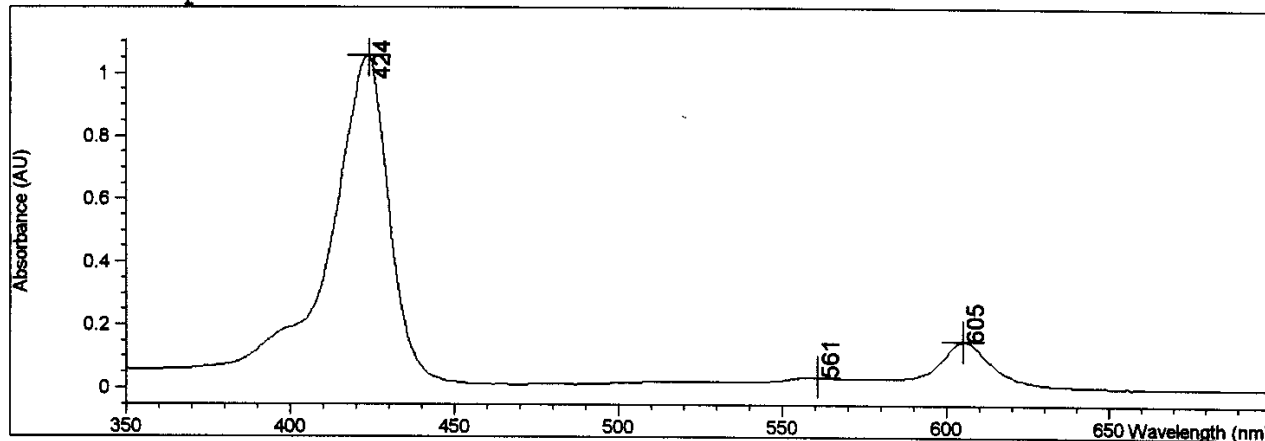
Peak #	RT [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	10.987	BB	0.224	10238.00879	698.26050	100.0000

Totals : 10238.00879 698.26050



Method file : <untitled>
 Information : Default Method
 Data File : <untitled>

Overlaid Spectra:



#	Name	Peaks (nm)	Abs (AU)
1		424.0	1.05580
1		605.0	0.15180
1		561.0	3.6420E-2

Report generated by :

Signature:

*** End Spectrum/Peak Report ***

