

Fullerene Chromatogram Index

2009.8

Index

<Higher Fullerene>

Sample	Page	Sample	Page
C60	4	C76	12
C60	5	C78	13
C60	6	C84	14
C60	7	C82	15
C70	8	C84	16
C70	9	C88	17
C70	10	Purification of H2@C60	18
C70	11		

<Metallofullerene>

Sample	Page	Sample	Page
Empty fullerenes and Ca-metallofullerenes	19	La-fullerene CS2 extract (PBB-33-36 min fraction)	36
Empty fullerenes and Ca-metallofullerenes (5PBB-Fraction A)	20	La-fullerene CS2 extract (PBB-36-41.5 min fraction)	37
Empty fullerenes and Ca-metallofullerenes (Buckyprep-Fraction C)	21	La-fullerene CS2 extract (PBB-43.5-47.5 min fraction)	38
Empty fullerenes and Ca-metallofullerenes (5PBB-Fraction B)	22	La-fullerene CS2 extract (PBB-47.5-50 min fraction)	39
Empty fullerenes and Ca-metallofullerenes (Buckyprep-Fraction D)	23	La-fullerene TCB extract	40
Ca@C72(I), Ca@C72(II)	24	Sc-monometallofullerene	41
Empty fullerenes and Ce-metallofullerenes	25	Sc-dimetallofullerene	42
Ce-metallofullerenes extracted by a mixed solvent of triethylamine and acetone(1 : 3)	26	Sm-monometallofullerene	43
Dy-dimetallofullerene	27	Ti-dimetallofullerene	44
Er-mono&dimetallofullerene	28	Empty fullerenes and Tm-metallofullerenes	45
Eu@C82	29	Empty fullerenes and Tm-metallofullerenes (Buckyprep-Fraction A)	46
Eu-monometallofullerene	30	Empty fullerenes and Tm-metallofullerenes (Buckyprep-Fraction B)	47
La-fullerene CS2 extract	31	Empty fullerenes and Tm-metallofullerenes (Buckyprep-Fraction D)	48
La-fullerene CS2 extract	32	Empty fullerenes and Tm-metallofullerenes (Buckyprep-Fraction C)	49
La-fullerene CS2 extract (PBB-21.5-23.5 min)	33	Y-mono&dimetallofullerene	50
La-fullerene CS2 extract (PBB-25.5-27 min fraction)	34	Y-dimetallofullerene	51
La-fullerene CS2 extract (PBB-27-30 min fraction)	35	Y-dimetallofullerene	52

Index

<Fullerene Derivatives>

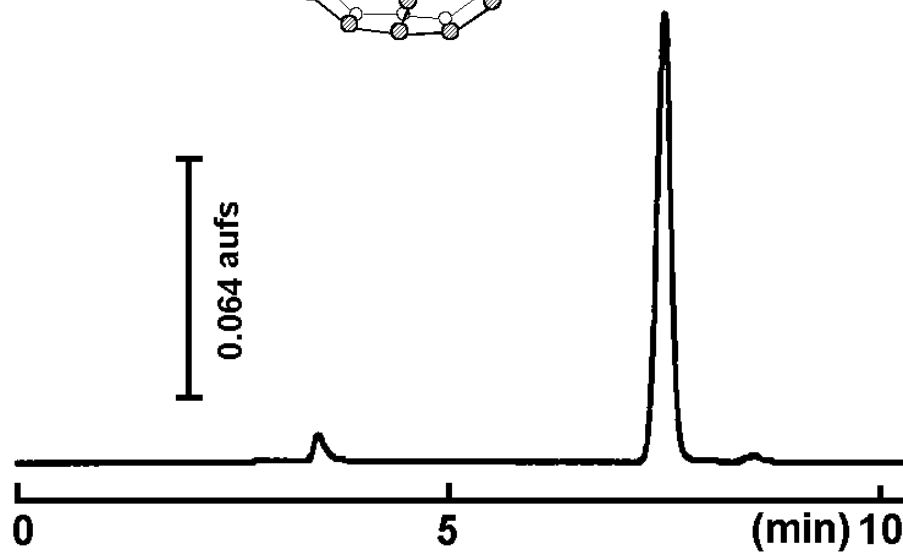
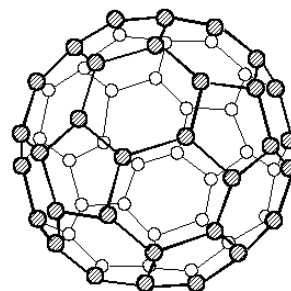
Sample	Page	Sample	Page
1,2-C60(CH3)H	53	1,4-C60(CHCl2)OCH2CF3	76
1,4-C60[(CH2)7CH3]2, 1,2-C60[(CH2)7CH3]H	54	1,4-C60(CHCl2)OCH3	77
1,2-C60(Ph)H	55	1,4-C60(CHCl2)(C6H4OCH3-p)	78
1-Phenyl-1,9-dihydro[60]fullerene	56	1,4-C60(CHCl2)Cl, 1,2-C60(CHCl2)Cl	79
1-(4-Methylphenyl)-1,9-dihydro[60]fullerene	57	1,4-C60(CCl2CH2Cl)OCH2CF3	80
1-(2-Methylphenyl)-1,9-dihydro[60]fullerene	58	1,4-C60(CCl2CH2Cl)OH	81
1-(E)-Styryl-1,9-dihydro[60]fullerene	59	1,4-C60(CCl2CH2Cl)OCH3	82
1-(2,6-Dimethylphenyl)-1,9-dihydro[60]fullerene	60	1,4-C60(CCl2CH2Cl)(C6H4OCH3-p)	83
1-(1-Naphthyl)-1,9-dihydro[60]fullerene	61	1,4-C60(CCl3)Cl	84
1,4-bis(p-tolyl)-1,4-dihydro-[60] fullerene	62	1,4-C60(CCl2CH2Cl)Cl	85
1-(1-Pyrenyl)-1,9-dihydro[60]fullerene	63	1,2-C60(CH3)OCH2CF3	86
C60Ph5H	64	C60-fused <i>N</i> -methylpyrrolidine- meta-C12 phenyl (C60MC12)	87
HC60Ph5	65	HC60[(<i>N</i> -tert-butoxycarbonyl)-L-phenylalanine tert-butyl ester]	88
C60Ph5Me	66	6,12,15,18-Tetra(dimethylamino)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	89
MeC60Ph5	67	6,12,15,18-Tetra(pyrrolidin-1-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	90
C60(biphenyl)5H	68	6,12,15,18-Tetra(piperidin-1-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	91
HC60(biphenyl)5	69	6,12,15,18-Tetra(2-azahexan-2-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	92
C60(biphenyl)5Me	70	6,12,15,18-Tetra(1-azacycloheptan-1-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	93
MeC60(biphenyl)5	71	6,12,15,18-Tetra(morpholin-4-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	94
HC60(C25H32)C60H	72	6,12,15,18-Tetra[4-(hydroxymethyl)piperidin-1-yl]-6,12,15,18-(tetrahydro)oxireno[2',3':1,9] (C60-Ih)[5,6]fullerene	95
1,2-C60(CH3)Cl	73	6,12,15,18-Tetra[4-(2-hydroxy-ethyl)piperidin-1-yl]-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6]fullerene	96
1-(4-Chlorophenyl)-1,9-dihydro[60]fullerene	74	6,12,15,18-Tetra(1,4-dioxo-8-azaspiro [4,5]decan-8-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9] (C60-Ih)[5,6]fullerene	97
1,4-C60(CHCl2)Ph	75	6,12,15,18-Tetra[4-(<i>tert</i> -butoxycarbonylamino)piperidin-1-yl]-[2',3':1,9](C60-Ih)[5,6]fullerene	98

Index

Sample	Page	Sample	Page
C60O	99	[6,6]-closed methanofullerene [3' H-Cyclopropa [1,9][5,6]fullerene-C60-Ih,3',3' -bis (4-methoxyphenyl)-(9Cl)]	117
1,4-C60(CH3)OH	100	[6,6]-Phenyl-C61 Butyric Acid Butyl Ester	118
1,2-C60(CH3)OCH3	101	[6,6]-Phenyl-C61 Butyric Acid Butyl Ester	119
1-(4-Methoxyphenyl)-1,9-dihydro[60]fullerene	102	[6,6]-Phenyl-C61 Butyric Acid Butyl Ester	120
1-(4-Acetylphenyl)-1,9-dihydro[60]fullerene	103	[6,6]-Phenyl-C61 Butyric Acid Butyl Ester	121
HC60P(O)Me2	104	HC60P(O)(OEt)Ph	122
HC60P(O)Ph2	105	HC60P(O)(C12H8O)	123
HC60P(O)(di- <i>t</i> -Bu-C6H3)2	106	C60O3(<i>C</i> _s)	124
HC60P(O)(<i>p</i> -C6H4F)2	107	C60O3(<i>C</i> ₂)	125
C60O2(<i>cis</i> -1)	108	HC60P(O)(<i>p</i> -C6H4-OMe)2	126
HC60CH(Me)COOMe	109	1-(3-Thienyl)-1,9-dihydro[60]fullerene	127
HC60C(Me2)COOMe	110	Ru(C60Me5)Cp	128
1,4-C60(OCOCH3)Ph	111	Ru(C60Ph5)Cp	129
[6,6]-Phenyl-C61 Butyric Acid Methyl Ester	112	Fe(C60Me5)Cp	130
[6,6]-Phenyl-C61 Butyric Acid Methyl Ester	113	Fe(C60Ph5)Cp	131
[6,6]-Phenyl-C61 Butyric Acid Methyl Ester	114	IrC60Me5(CO)I2	132
[6,6]-Phenyl-C61 Butyric Acid Methyl Ester	115	RuCl(CO)2C60Me5	133
[6,5]-open fulleroid [1,2 (2a)-Homo [5,6]fullerene-C60-Ih, 2a,2a-bis (4-methoxyphenyl)-(9Cl)]	116		

Fullerene Chromatogram Index

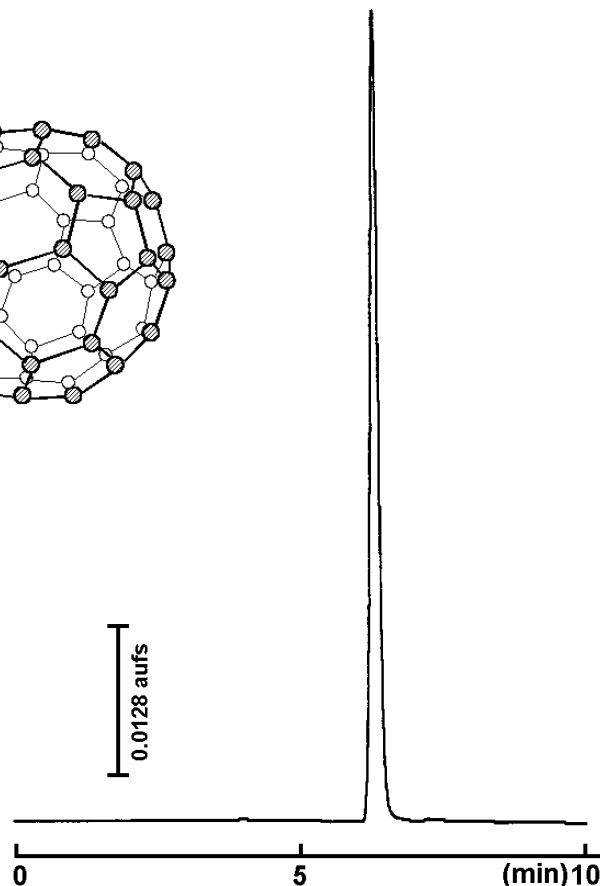
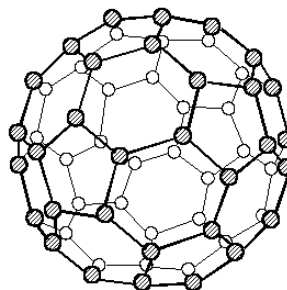
Sample: C60
CAS No.: 99685-96-8
Molecular formula: C60
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 285 nm
Attenuation: 0.64 aufs
Sample conc.: 0.65 mg/ml
Injection volume: 1.0 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

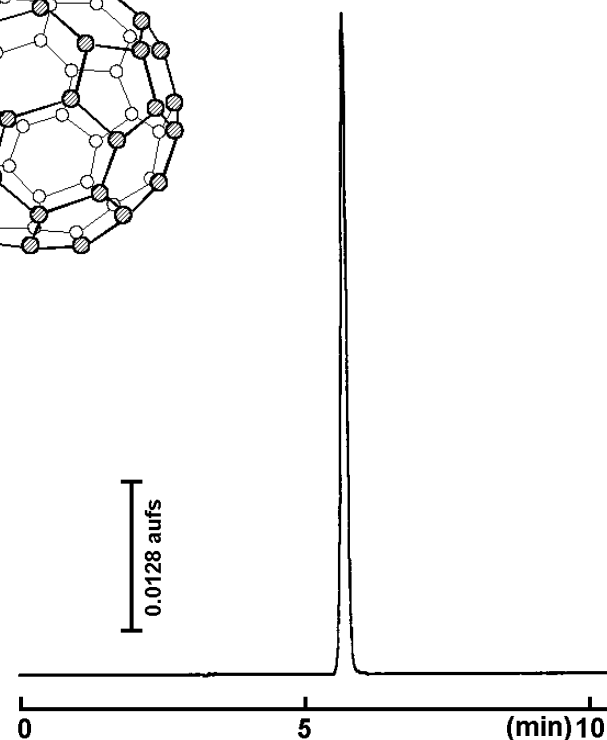
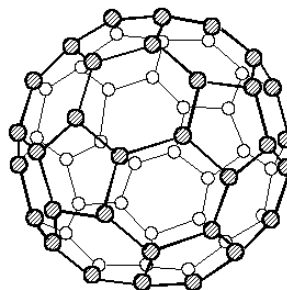
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Molecular formula: C60
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Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 au fs
Sample conc.: 0.25 mg/ml
Injection volume: 1.0 µl



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Fullerene Chromatogram Index

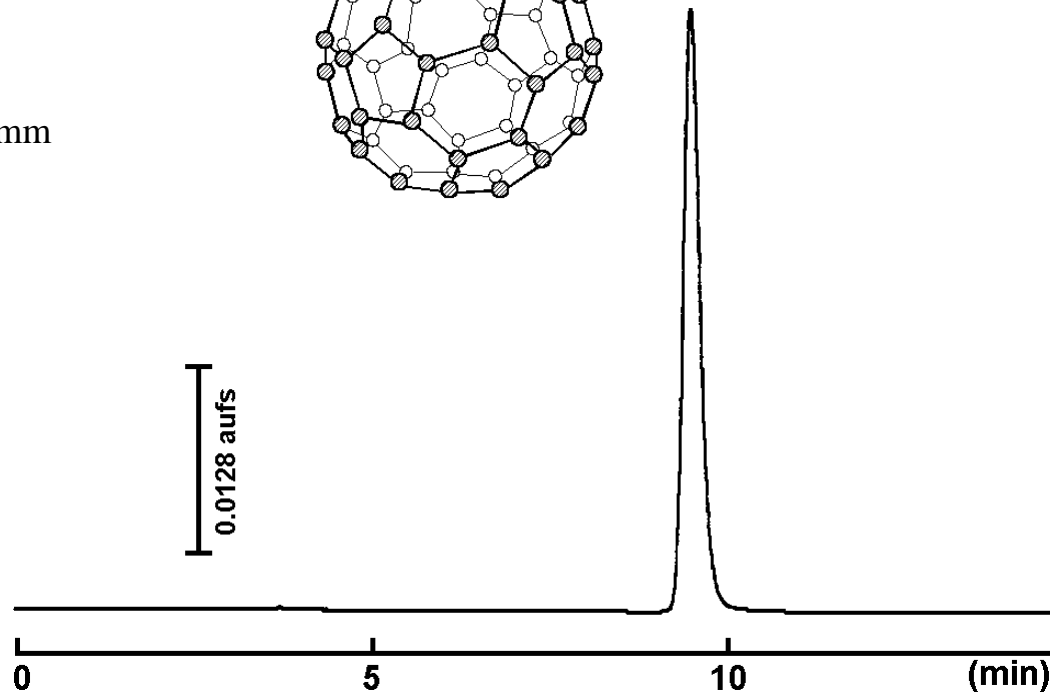
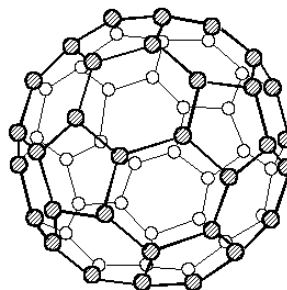
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CAS No.: 99685-96-8
Molecular formula: C60
Column: NPE
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : Hexane = 25 : 75
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



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Fullerene Chromatogram Index

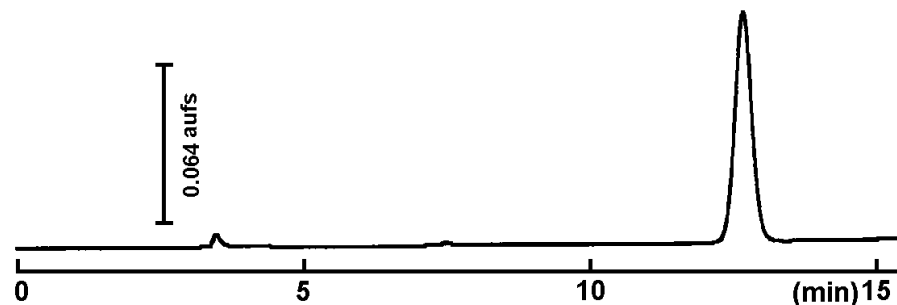
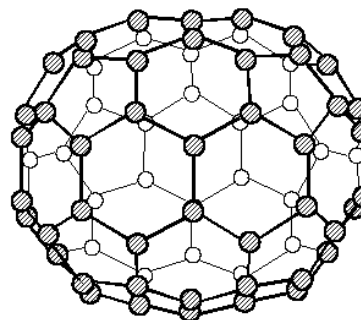
Sample: C60
CAS No.: 99685-96-8
Molecular formula: C60
Column: PBB
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 au fs
Sample conc.: 0.25 mg/ml
Injection volume: 1.0 µl



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Fullerene Chromatogram Index

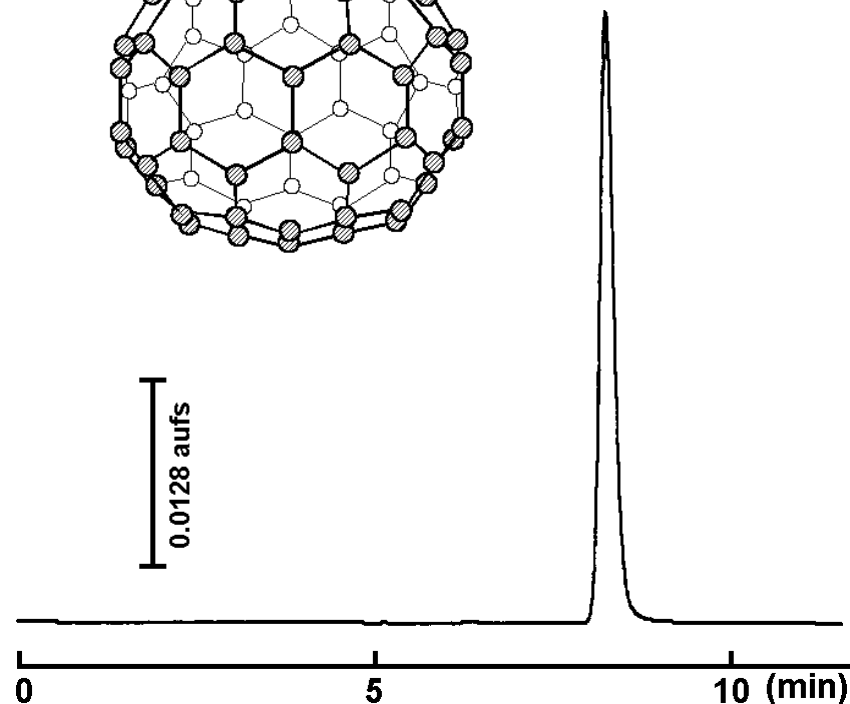
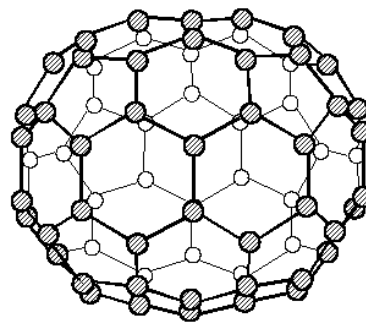
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CAS No.: 115383-22-7
Molecular formula: C70
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 285 nm
Attenuation: 0.64 aufs
Sample conc.: 0.65 mg/ml
Injection volume: 1.0 µl



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Fullerene Chromatogram Index

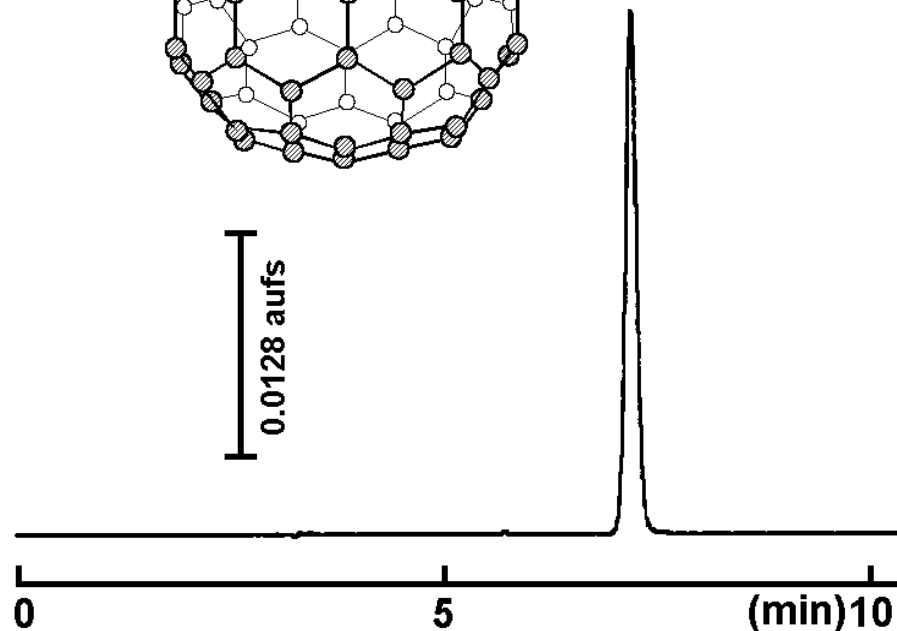
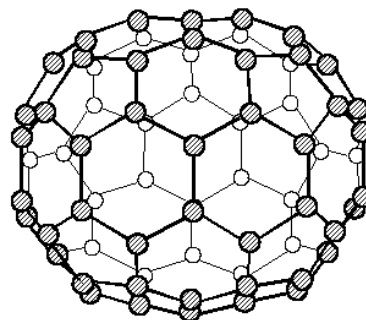
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CAS No.: 115383-22-7
Molecular formula: C70
Column: Buckyprep-M
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 1.0 µl



Data courtesy of
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Fullerene Chromatogram Index

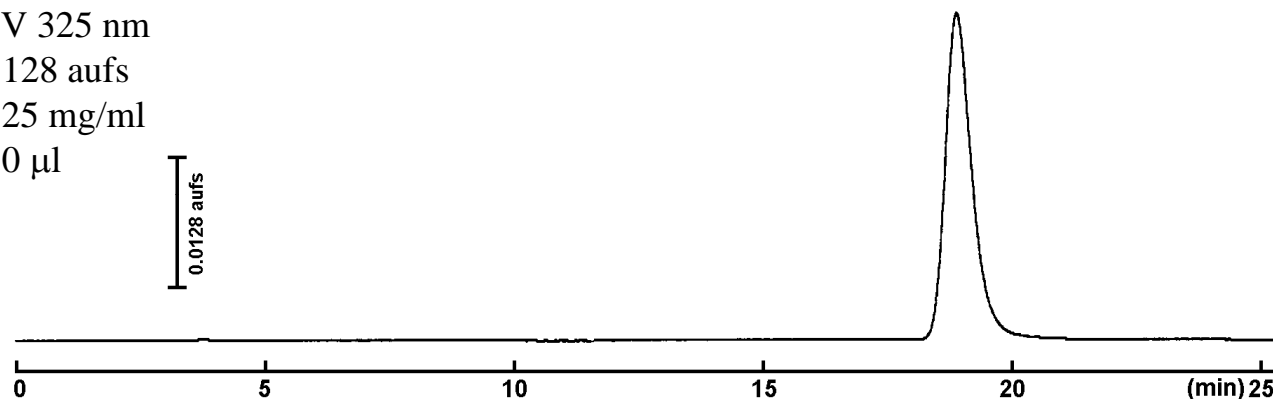
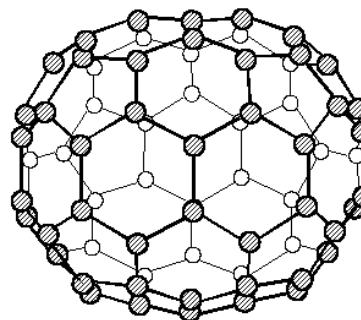
Sample: C70
CAS No.: 115383-22-7
Molecular formula: C70
Column: NPE
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : Hexane = 25 : 75
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
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Fullerene Chromatogram Index

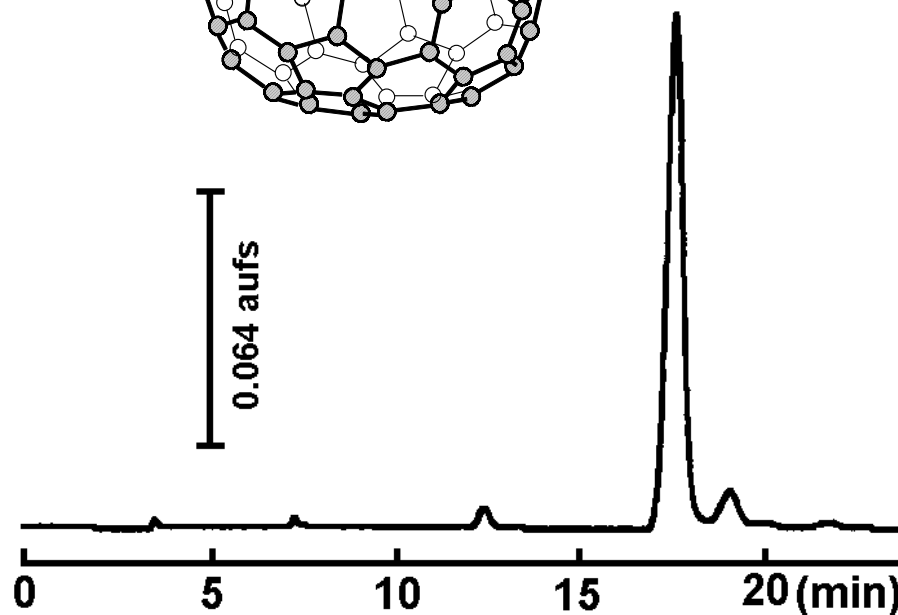
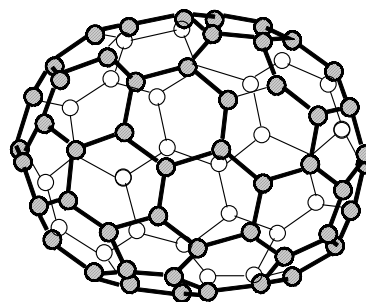
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CAS No.: 115383-22-7
Molecular formula: C70
Column: PBB
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 2.0 µl



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Fullerene Chromatogram Index

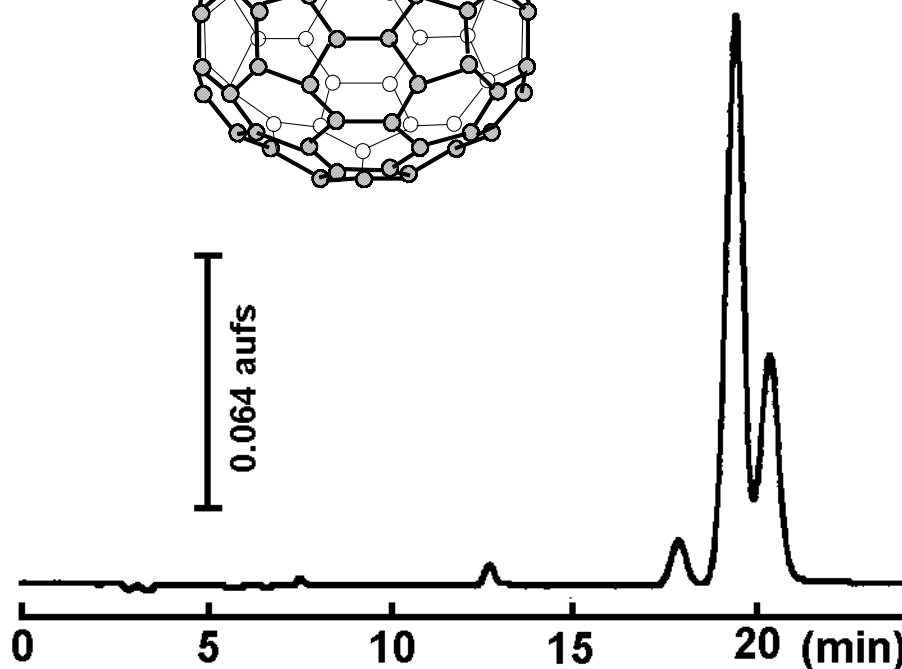
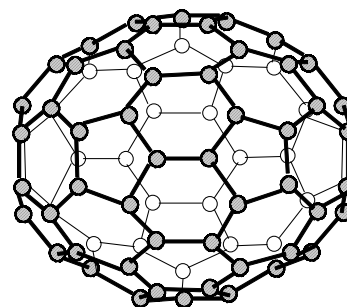
Sample: C76
CAS No.: 135113-15-4
Molecular formula: C76
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 285 nm
Attenuation: 0.64 aufs
Sample conc.: 0.20 mg/ml
Injection volume: 5.0 µl



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Fullerene Chromatogram Index

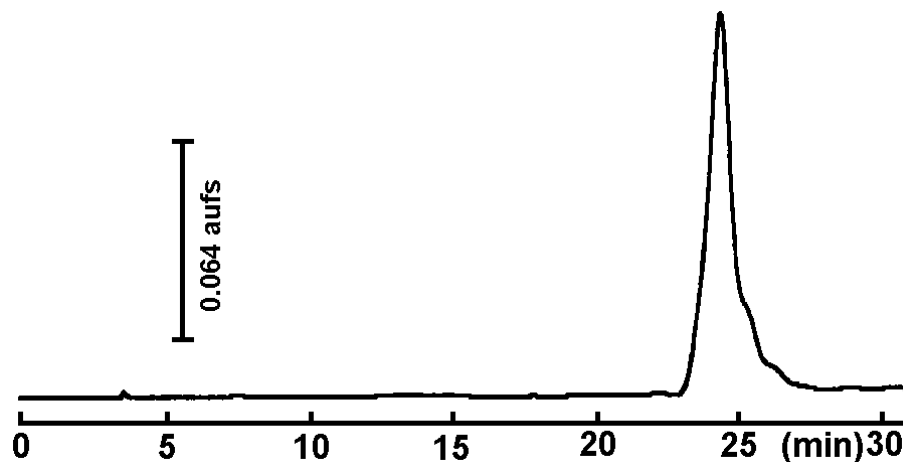
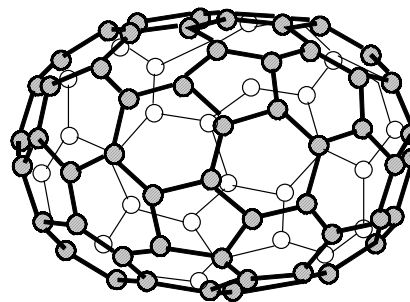
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CAS No.: 136316-32-0
Molecular formula: C78
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 285 nm
Attenuation: 0.64 aufs
Sample conc.: 0.20 mg/ml
Injection volume: 10.0 µl



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Fullerene Chromatogram Index

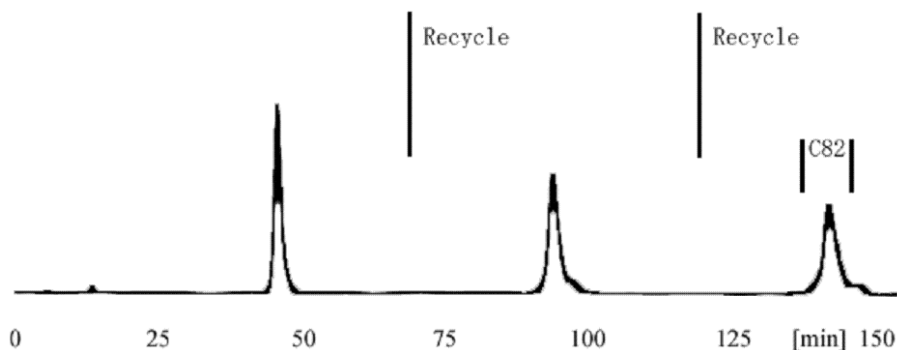
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CAS No.: 135113-16-5
Molecular formula: C84
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 285 nm
Attenuation: 0.64 aufs
Sample conc.: 0.20 mg/ml
Injection volume: 10.0 µl



Data courtesy of
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Fullerene Chromatogram Index

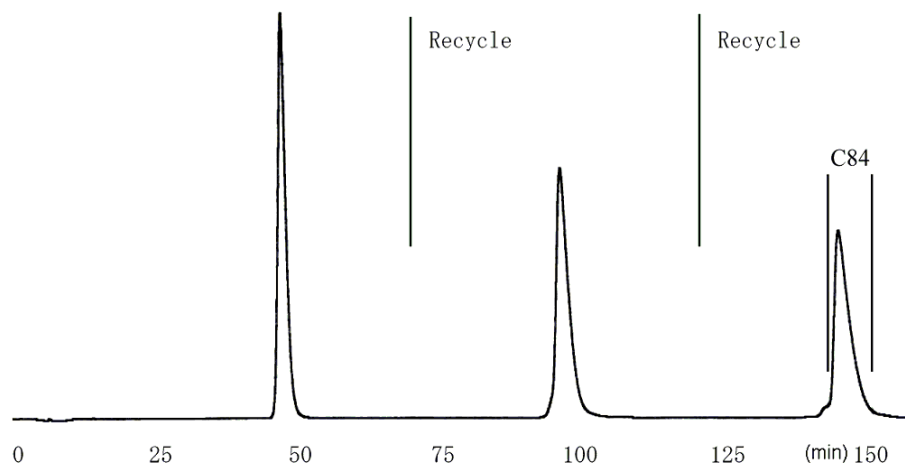
Sample: C82
CAS No.: -
Molecular formula: C82
Column: Buckyprep
Column size: 10 mmI.D.-250 mm
Mobile phase: Toluene
Flow rate: 2.5 ml/min
Temperature: Room temperature
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: 0.75 ml



Data courtesy of
Dr. Yoshihiro Kubozono (Department of Chemistry
Okayama University, Okayama 700-8530, Japan)

Fullerene Chromatogram Index

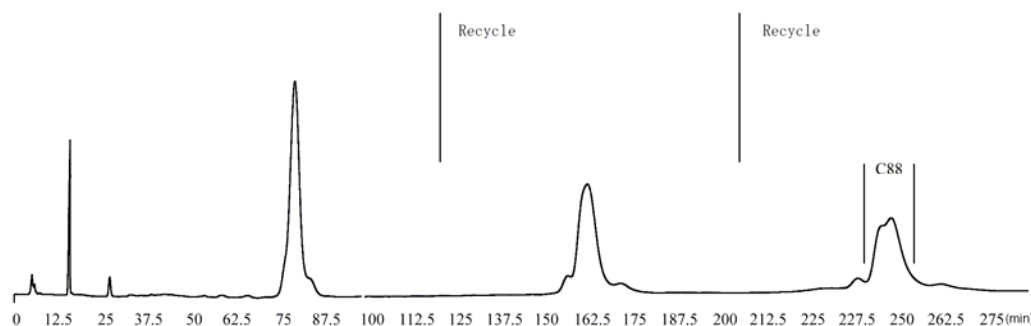
Sample: C84
CAS No.: -
Molecular formula: C84
Column: Buckyprep
Column size: -
Mobile phase: Toluene
Flow rate: 2.5 ml/min
Temperature: Room temperature
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: 0.75 ml



Data courtesy of
Dr. Yoshihiro Kubozono (Department of Chemistry
Okayama University, Okayama 700-8530, Japan)

Fullerene Chromatogram Index

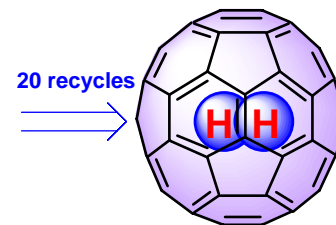
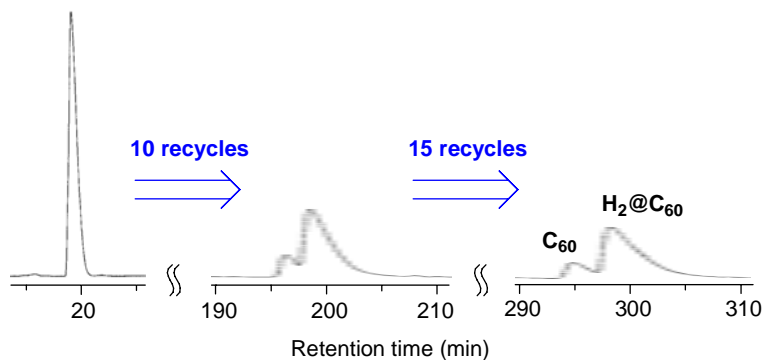
Sample: C88
CAS No.: -
Molecular formula: C88
Column: Buckyprep
Column size: 10 mmI.D.-250 mm
Mobile phase: Toluene
Flow rate: 2.5 ml/min
Temperature: Room temperature
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: 0.75 ml



Data courtesy of
Dr. Yoshihiro Kubozono (Department of Chemistry
Okayama University, Okayama 700-8530, Japan)

Fullerene Chromatogram Index

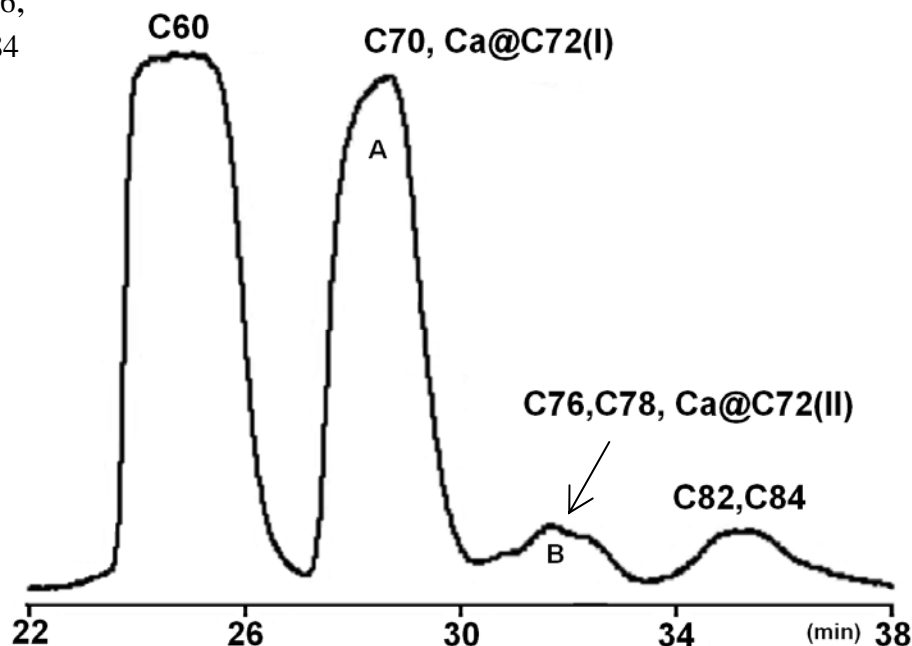
Sample:	Purification of H ₂ @C ₆₀
CAS No.:	-
Molecular formula:	C ₆₀ , H ₂ @C ₆₀
Column:	Buckyprep x 2
Column size:	10 mm I.D.-250 mm
Mobile phase:	Toluene
Flow rate:	4 ml/min
Temperature:	Room temperature
Detection:	UV 326 nm
Attenuation:	-
Sample conc.:	2 mg/ml
Injection volume:	3 ml



Data courtesy of
Dr. Yasujiro Murata (Institute for Chemical Research, Kyoto University,
Uji, Kyoto 611-0011, Japan)
Prof. Koichi Komatsu (Department of Environmental and Biotechnological
Frontier Engineering, Fukui University of Technology, Fukui 910-8505, Japan)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Ca-metallofullerenes
CAS No.: -
Molecular formula: C60, C70, Ca@C72(I), C76, C78, Ca@C72(II), C82, C84
Column: 5PBB x 2
Column size: 20 mm I.D.-250 mm
Mobile phase: CS₂
Flow rate: 6 ml/min
Temperature: Room temperature
Detection: UV 275 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Ca-metallofullerenes
(5PBB-Fraction A)

CAS No.: -

Molecular formula: C70, Ca@C72(I)

Column: Buckyprep

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

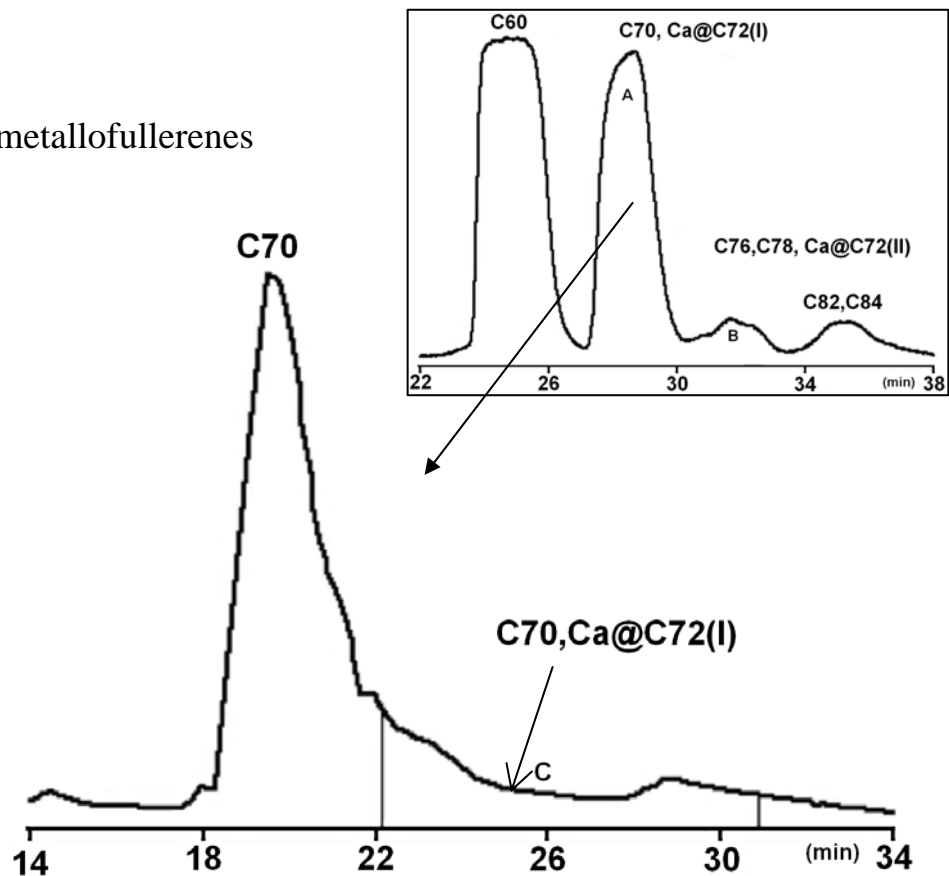
Temperature: Room temperature

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Ca-metallofullerenes
(Buckyprep-Fraction C)

CAS No.: -

Molecular formula: C70, Ca@C72(I)

Column: Buckyprep

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

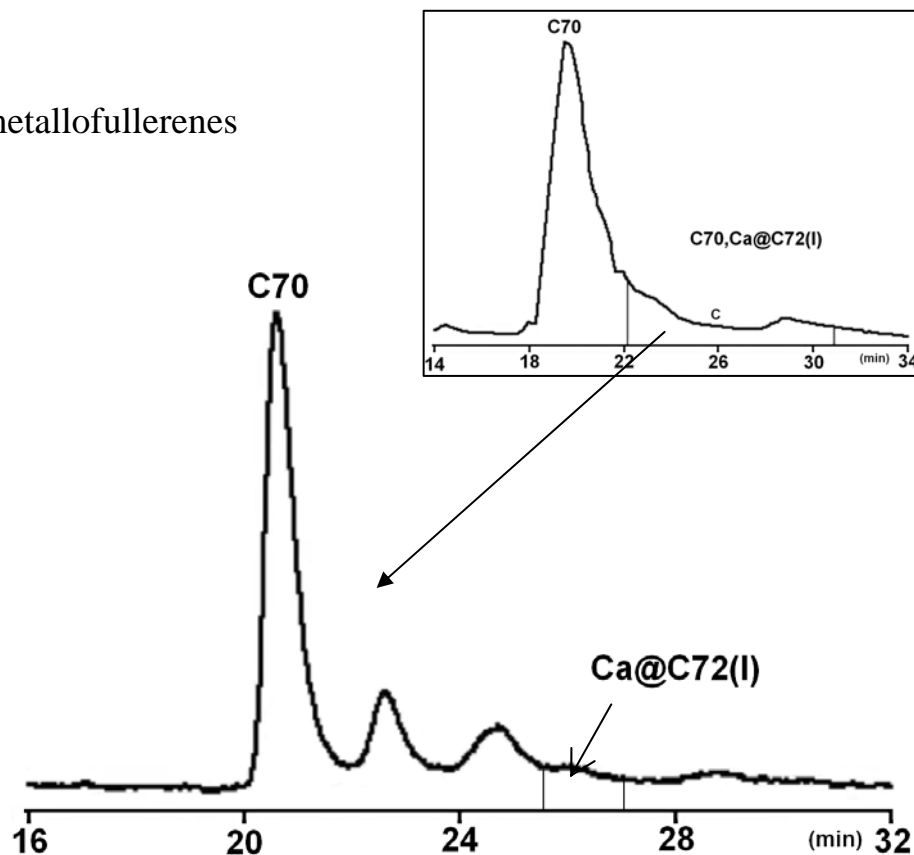
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Ca-metallofullerenes
(5PBB-Fraction B)

CAS No.: -

Molecular formula: C76, Ca@C72(II), C78, Ca@C74,
Ca@C76, Ca@C78

Column: Buckyprep

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

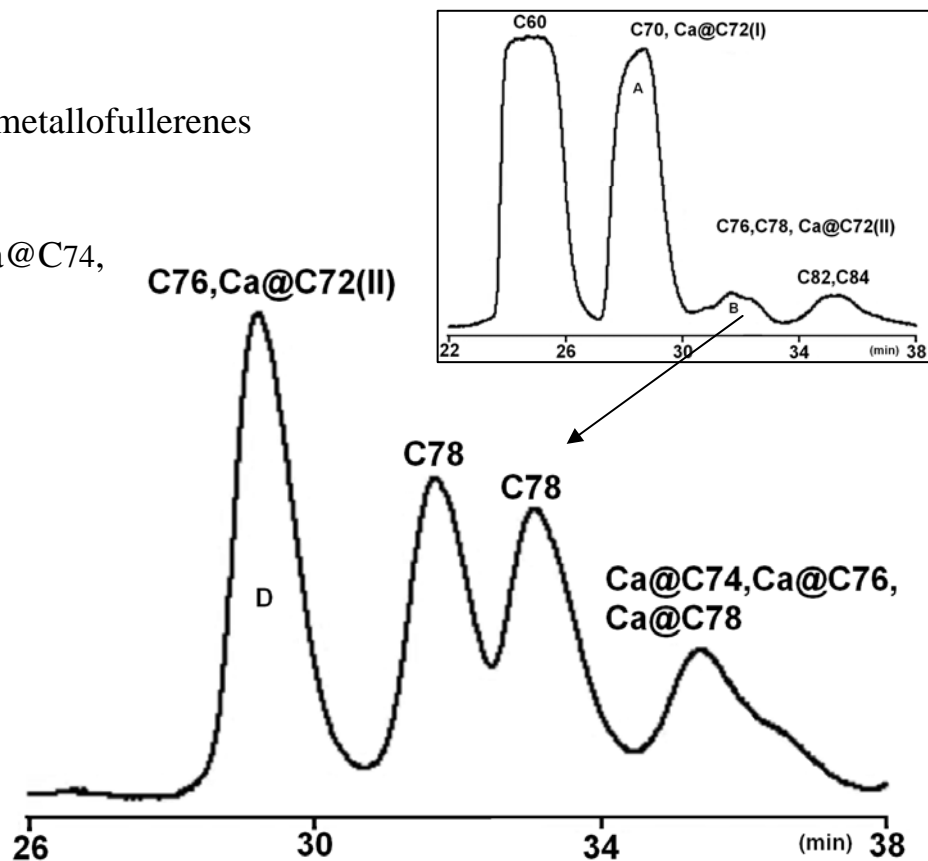
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Ca-metallofullerenes
(Buckyprep-Fraction D)

CAS No.: -

Molecular formula: C76, Ca@C72(II), C78

Column: 5PBB

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

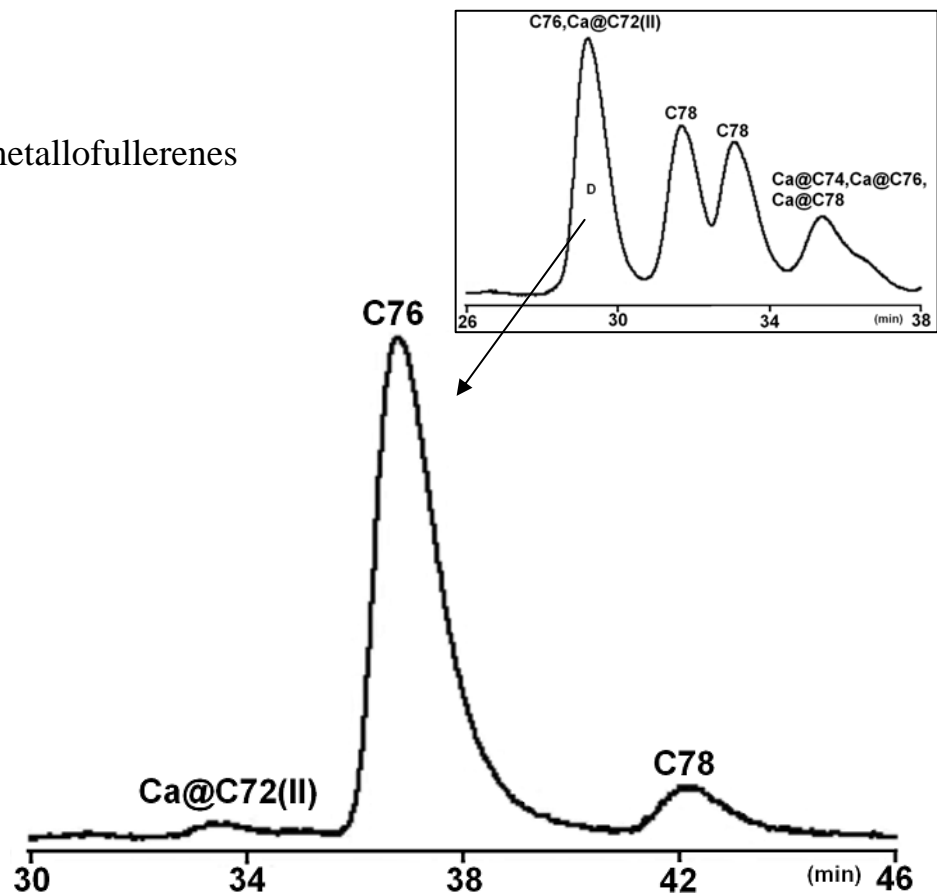
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

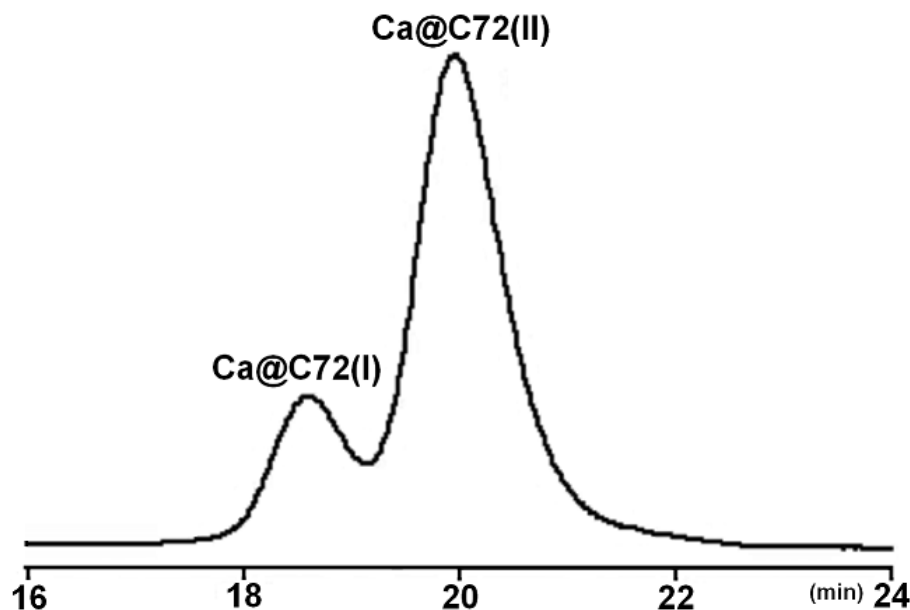
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Ca@C72(I), Ca@C72(II)
CAS No.: -
Molecular formula: Ca@72(I), Ca@72(II)
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: -
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and
Ce-metallofullerenes

CAS No.: -

Molecular formula: C60, C70, C84, Ce2@C78,
Ce@C82(I), Ce@C82(II),
Ce2@C80

Column: Buckyprep

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

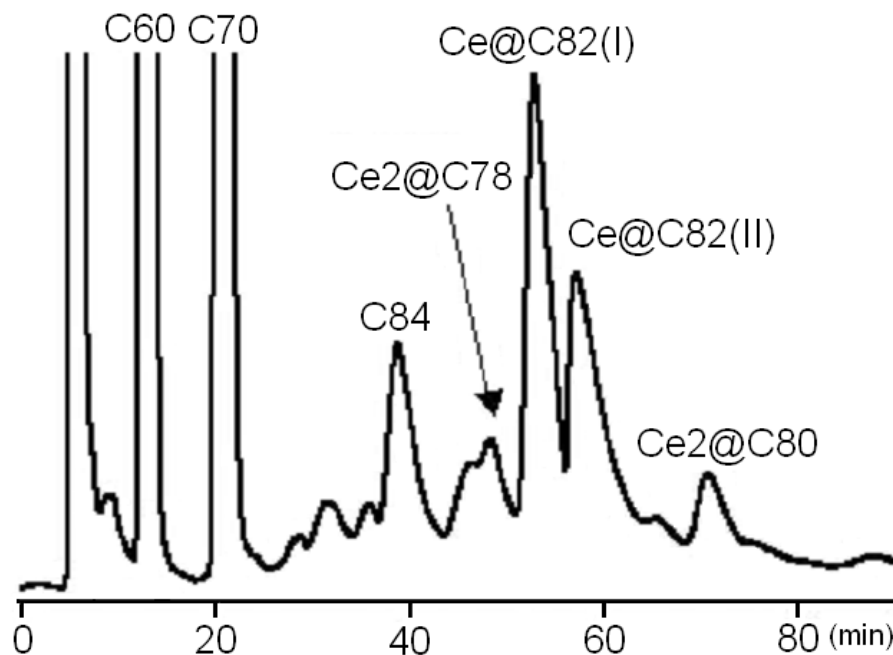
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Ce-metallofullerenes extracted by a mixed solvent of triethylamine and acetone(1 : 3)

CAS No.: -

Molecular formula: Ce₂@C₇₈, Ce@C₈₂(I), Ce@C₈₂(II), Ce₂@C₈₀

Column: Buckyprep

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

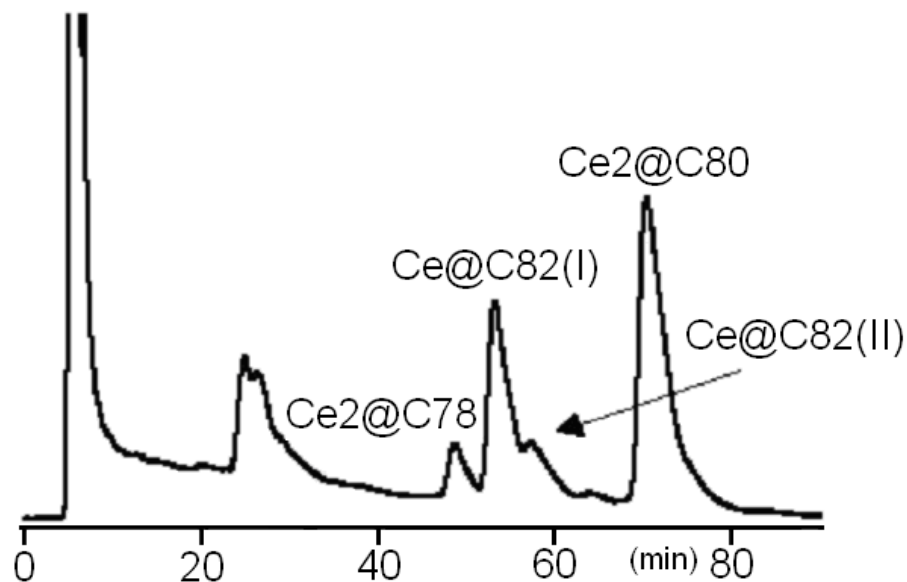
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

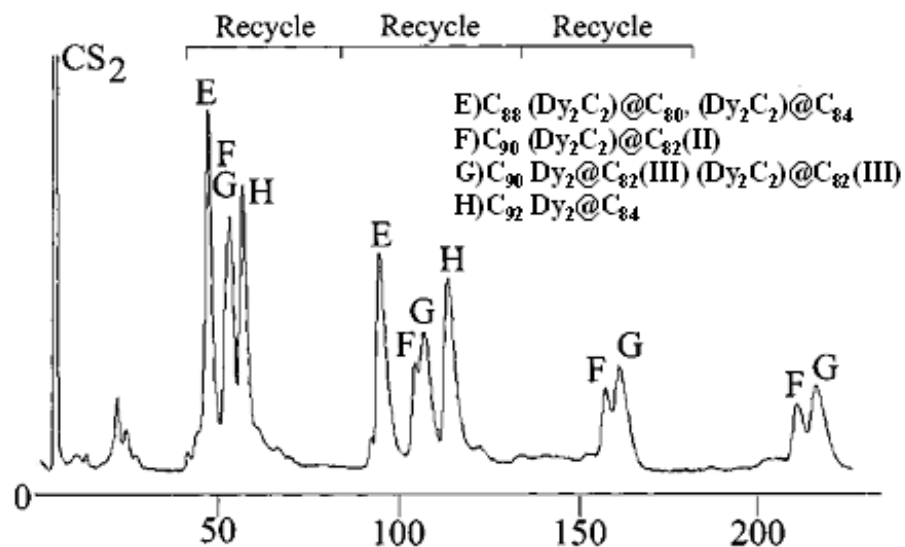
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

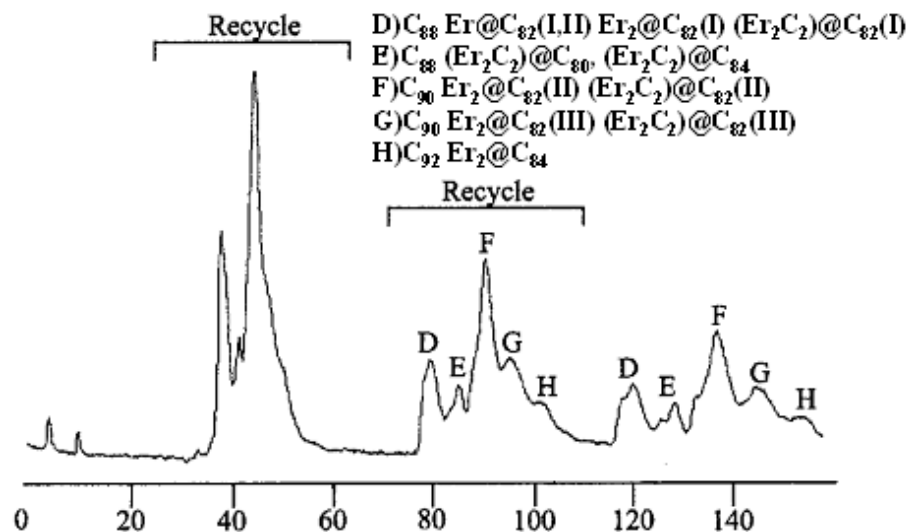
Sample: Dy-dimetallofullerene
CAS No.: -
Molecular formula: Dy₂@C₈₂, (Dy₂C₂)@C_{80~84}
Column: Buckyprep
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 18 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *Chem. Mater.*, **2000**, *12*, 3222-3226.

Fullerene Chromatogram Index

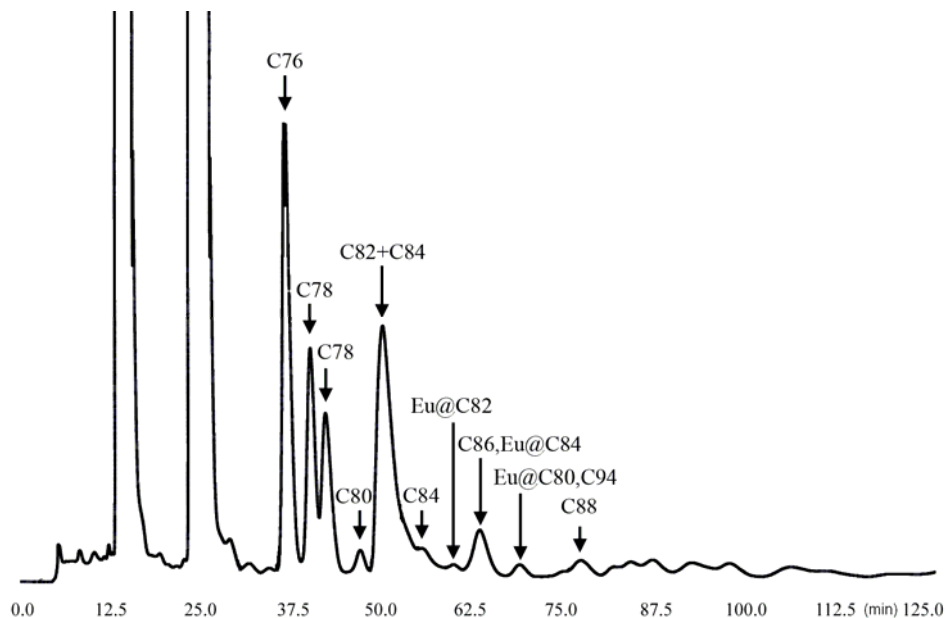
Sample: Er-mono&dimetallofullerene
 CAS No.: -
 Molecular formula: Er@C₈₂, Er₂@C₈₂,
 (Er₂C₂)@C_{80~84}
 Column: Buckyprep
 Column size: 20 mm I.D.-250 mm
 Mobile phase: Toluene
 Flow rate: 18 ml/min
 Temperature: Room temperature
 Detection: UV 312 nm
 Attenuation: -
 Sample conc.: -
 Injection volume: -



Data courtesy of
 Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
 (Department of Chemistry, Nagoya University)
 Ref. *Chem. Mater.*, **2001**, *13*, 2374-2379.

Fullerene Chromatogram Index

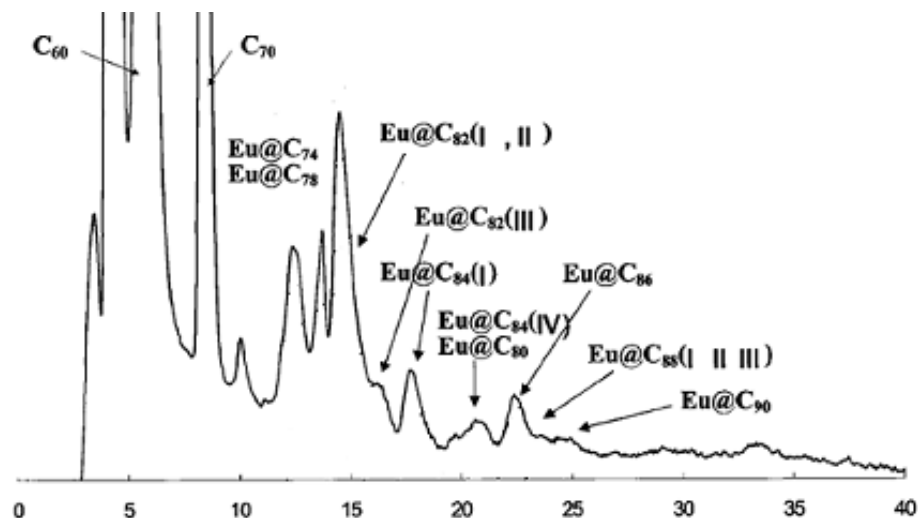
Sample: Eu@C82
CAS No.: -
Molecular formula: C76, C78, C80, C82, C84,
Eu@C82, C86, Eu@C84,
Eu@C80, C94, C88
Column: Buckyprep
Column size: 10 mmI.D.-250 mm
Mobile phase: Toluene
Flow rate: 2.5 ml/min
Temperature: Room temperature
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: 0.75 ml



Data courtesy of
Dr. Yoshihiro Kubozono (Department of Chemistry
Okayama University, Okayama 700-8530, Japan

Fullerene Chromatogram Index

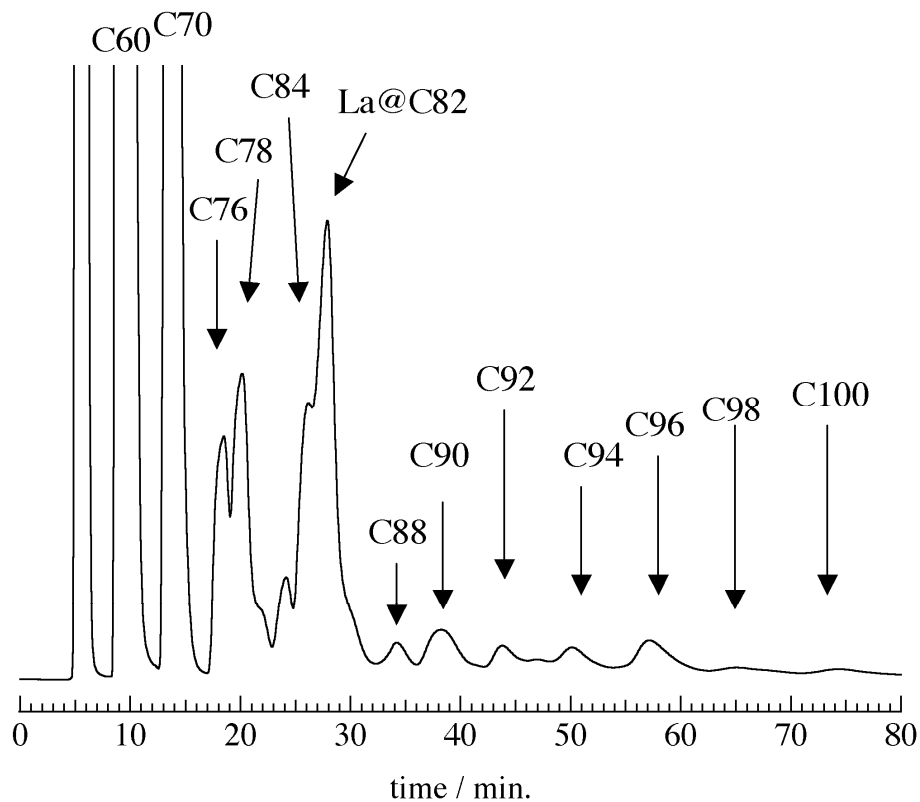
Sample: Eu-monometallofullerene
CAS No.: -
Molecular formula: Eu@C₇₄~90
Column: 5PYE
Column size: 20 mmI.D.-250 mm
Mobile phase: Toluene
Flow rate: 18 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *J. Phys. Chem. B.*, **2004**, *108*, 9011-9015.

Fullerene Chromatogram Index

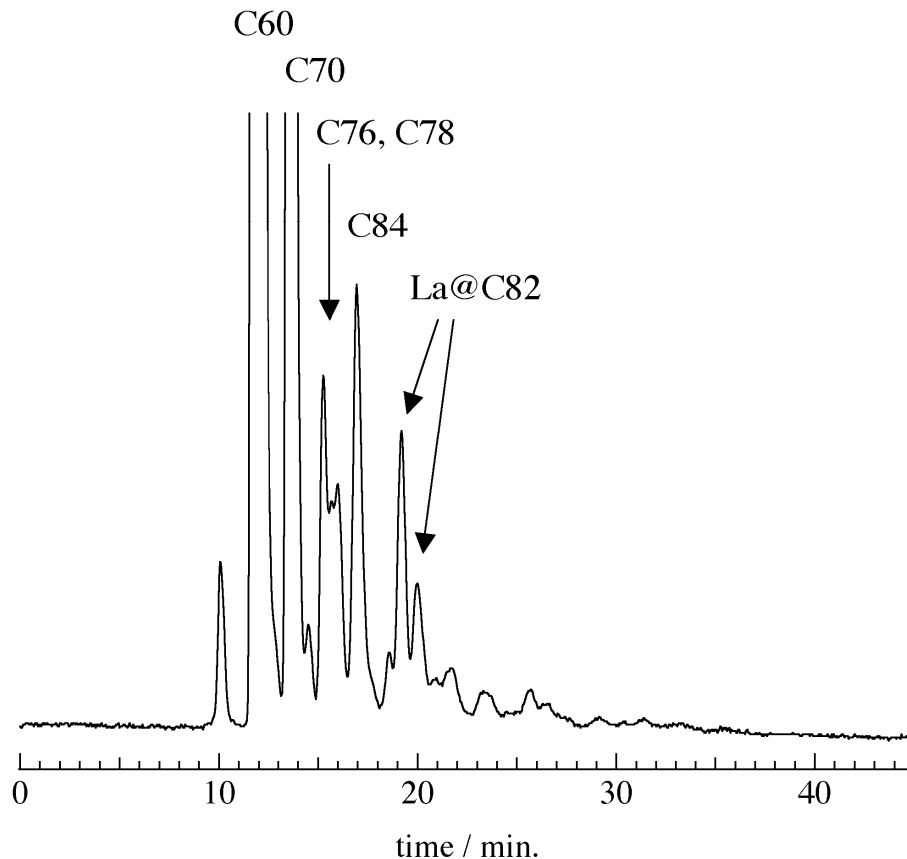
Sample: La-fullerene CS₂ extract
CAS No.: -
Molecular formula: C₆₀, C₇₀, C₇₆, C₇₈, C₈₄,
La@C₈₂, C₈₈, C₉₀, C₉₂,
C₉₄, C₉₆, C₉₈, C₁₀₀
Column: 5PBB
Column size: 20 mm I.D.-250 mm
Mobile phase: Chlorobenzene
Flow rate: 12 ml/min
Temperature: Room temperature
Detection: UV 330 nm
Attenuation: -
Sample conc.: 5 mg/ml
Injection volume: 15 ml



Data courtesy of
Prof. Tatsuhisa Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
CAS No.: -
Molecular formula: C₆₀, C₇₀, C₇₆, C₇₈, C₈₄,
La@C₈₂
Column: 5PYE
Column size: 20 mm I.D.-250 mm
Mobile phase: Chlorobenzene
Flow rate: 6 ml/min
Temperature: Room temperature
Detection: UV 330 nm
Attenuation: -
Sample conc.: 2 mg/ml
Injection volume: 25 μl



Data courtesy of
Prof. Tatsuhisa Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
(PBB-21.5-23.5 min fraction)

CAS No.: -

Molecular formula: C₇₈, C₈₀, La@C₇₆,
La₂@C₇₄

Column: 5PYE

Column size: 20 mm I.D.-250 mm

Mobile phase: Chlorobenzene

Flow rate: 6 ml/min

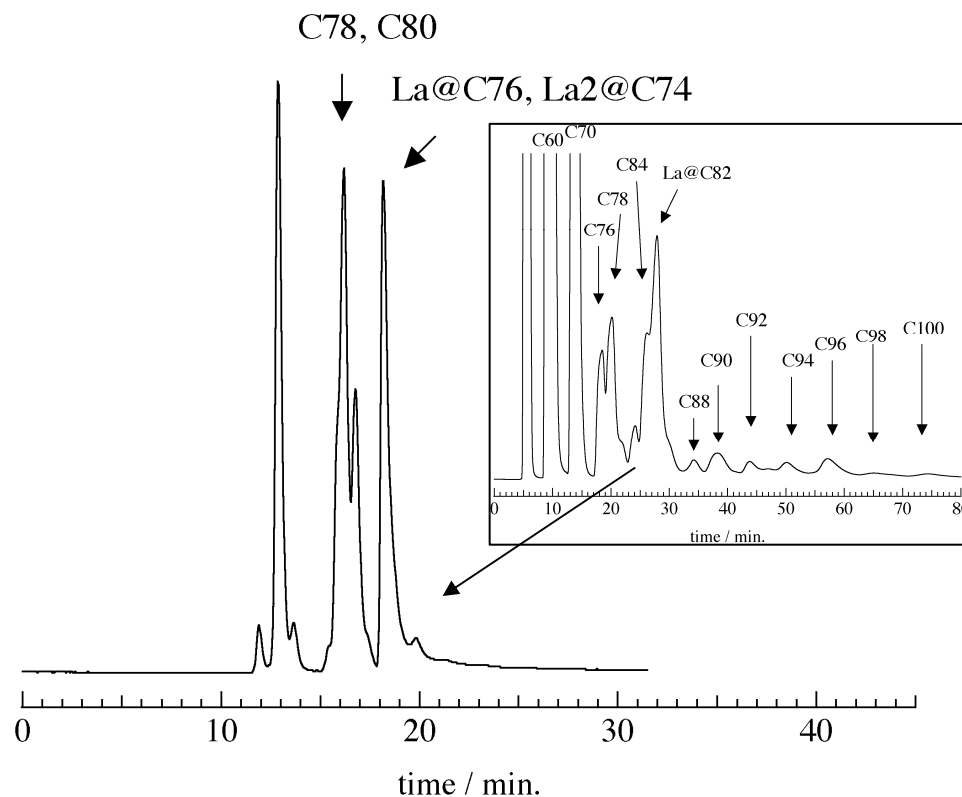
Temperature: Room temperature

Detection: UV 330 nm

Attenuation: -

Sample conc.: -

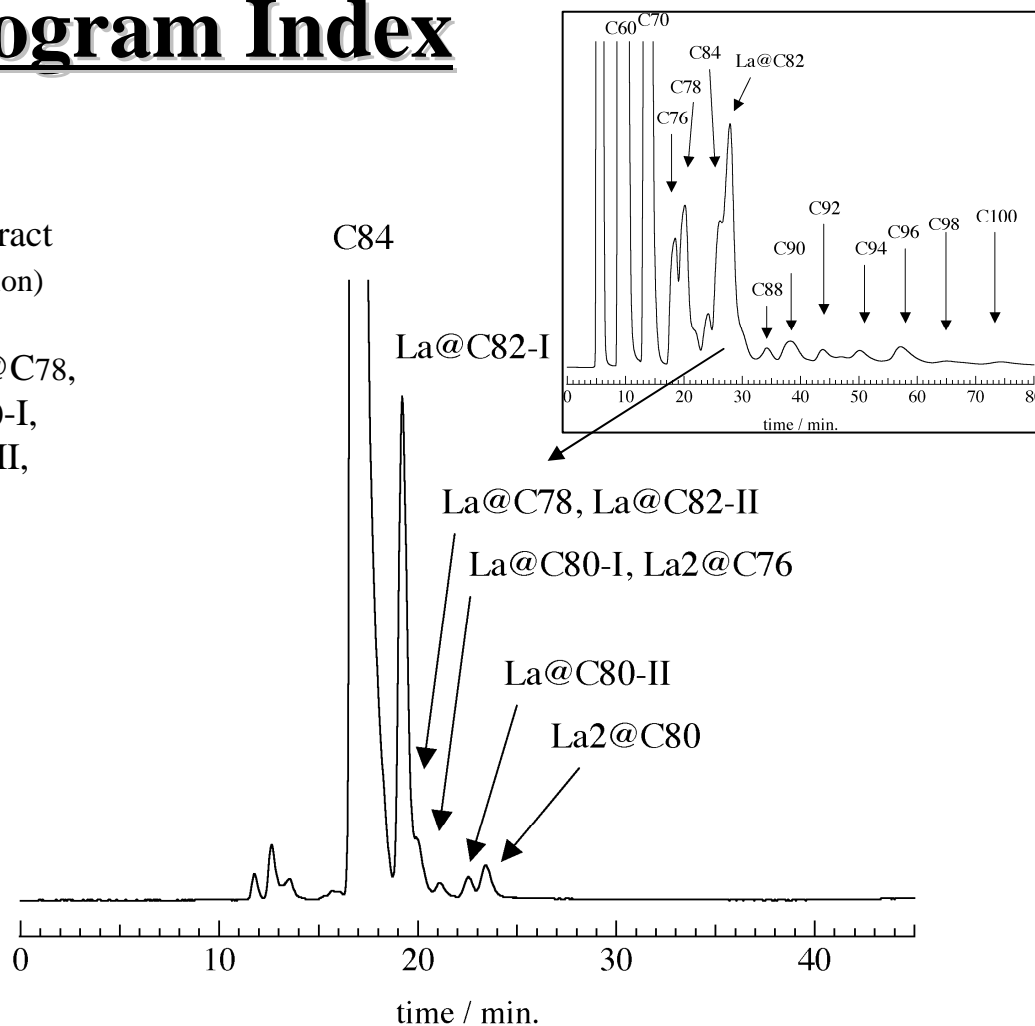
Injection volume: 1.0 ml



Data courtesy of
Prof. Tatsuhisa Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
 (PBB-25.5-27 min fraction)
 CAS No.: -
 Molecular formula: C₈₄, La@C₈₂-I, La@C₇₈,
 La@C₈₂-II, La@C₈₀-I,
 La₂@C₇₆, La@C₈₀-II,
 La₂@C₈₀
 Column: 5PYE
 Column size: 20 mm I.D.-250 mm
 Mobile phase: Chlorobenzene
 Flow rate: 6 ml/min
 Temperature: Room temperature
 Detection: UV 330 nm
 Attenuation: -
 Sample conc.: -
 Injection volume: 1.0 ml



Data courtesy of
 Prof. Tatsuhisa Kato (Josai University)
 Dr. Shingo Okubo (National Institute of Advanced Industrial
 Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
(PBB-27-30 min fraction)

CAS No.: -

Molecular formula: C₈₄, La@C₈₂-I,
La@C₈₂-II, La₂@C₈₀

Column: 5PYE

Column size: 20 mm I.D.-250 mm

Mobile phase: Chlorobenzene

Flow rate: 6 ml/min

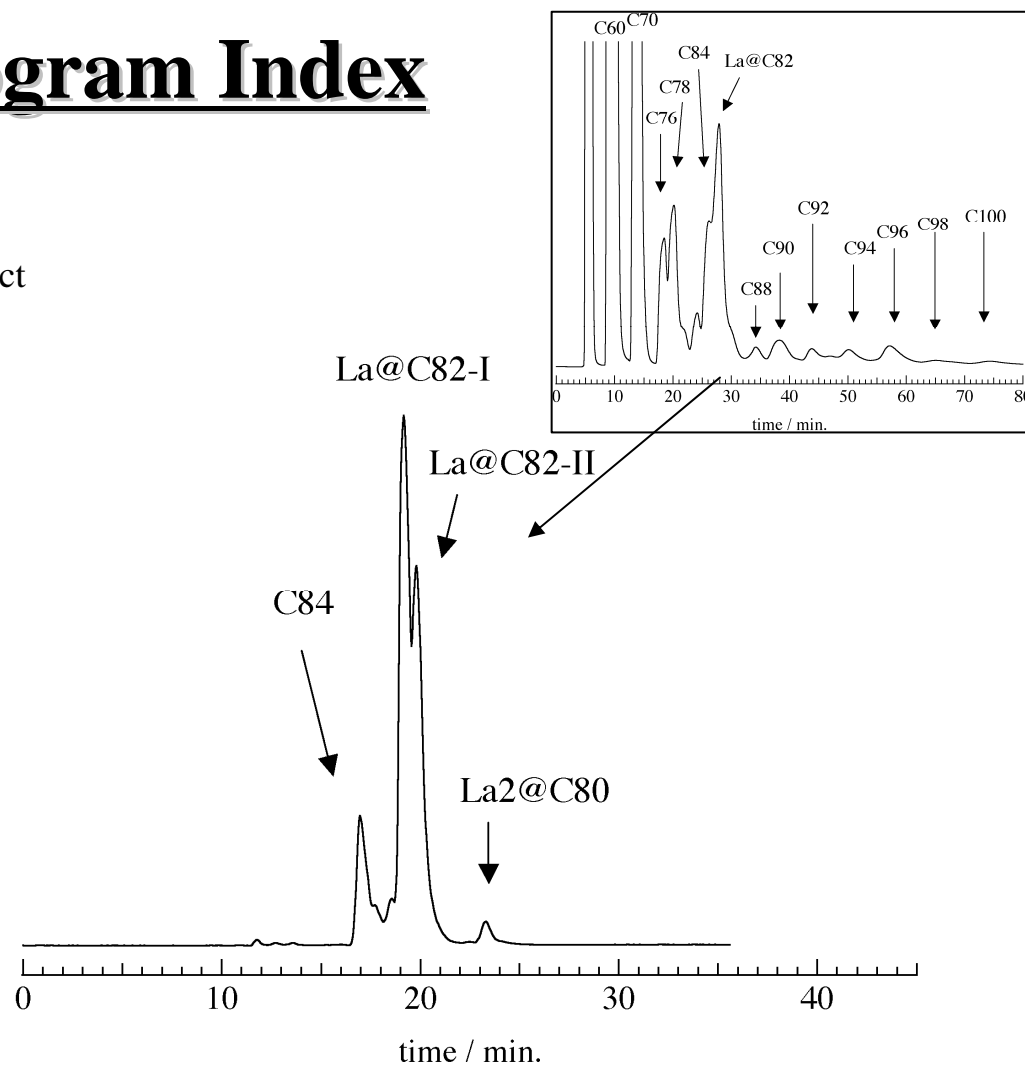
Temperature: Room temperature

Detection: UV 330 nm

Attenuation: -

Sample conc.: -

Injection volume: 1.0 ml



Data courtesy of
Prof. Tatsuhsa Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
(PBB-33-36 min fraction)

CAS No.: -

Molecular formula: La@C₈₄-I, C₈₈,
La@C₈₄-II

Column: 5PYE

Column size: 20 mm I.D.-250 mm

Mobile phase: Chlorobenzene

Flow rate: 6 ml/min

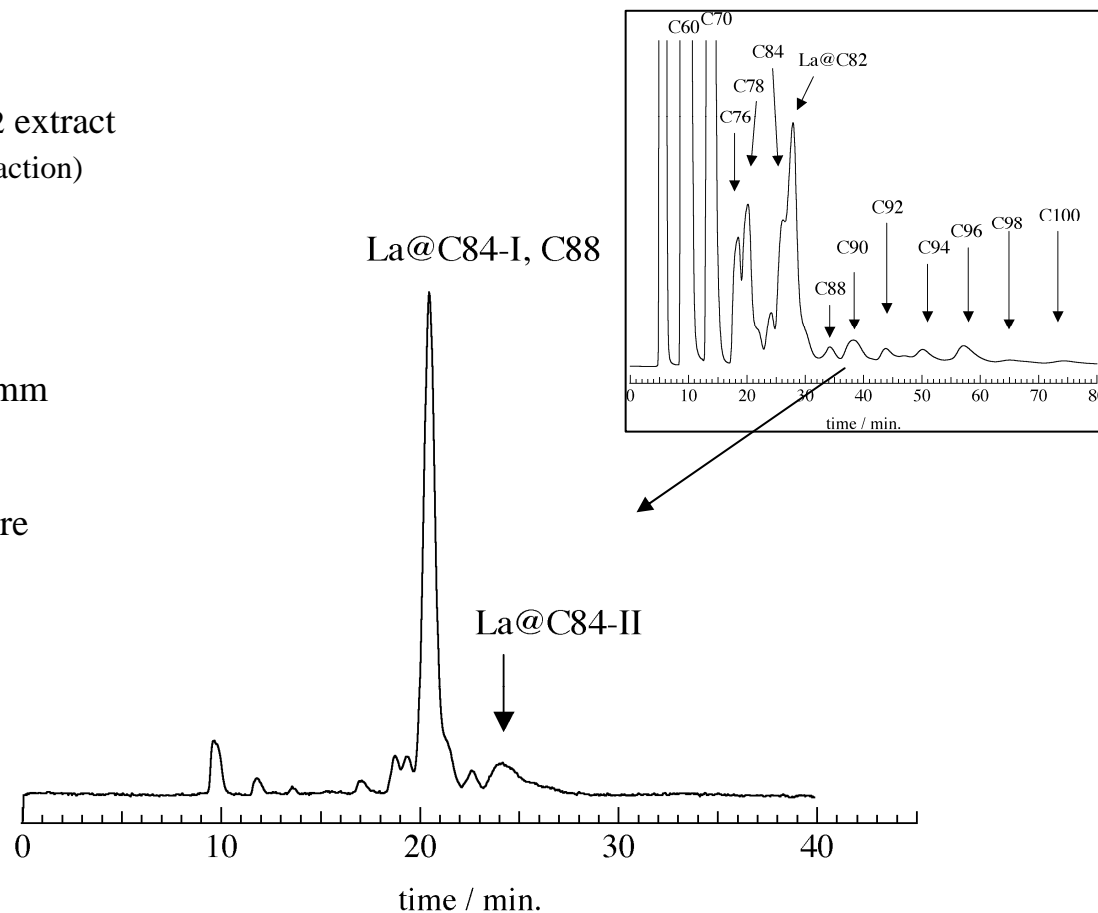
Temperature: Room temperature

Detection: UV 330 nm

Attenuation: -

Sample conc.: -

Injection volume: 100 μl



Data courtesy of
Prof. Tatsuhisa Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
(PBB-36-41.5 min fraction)

CAS No.: -

Molecular formula: C₉₀, La@C₈₆-I,
La@C₈₆-II

Column: 5PYE

Column size: 20 mm I.D.-250 mm

Mobile phase: Chlorobenzene

Flow rate: 6 ml/min

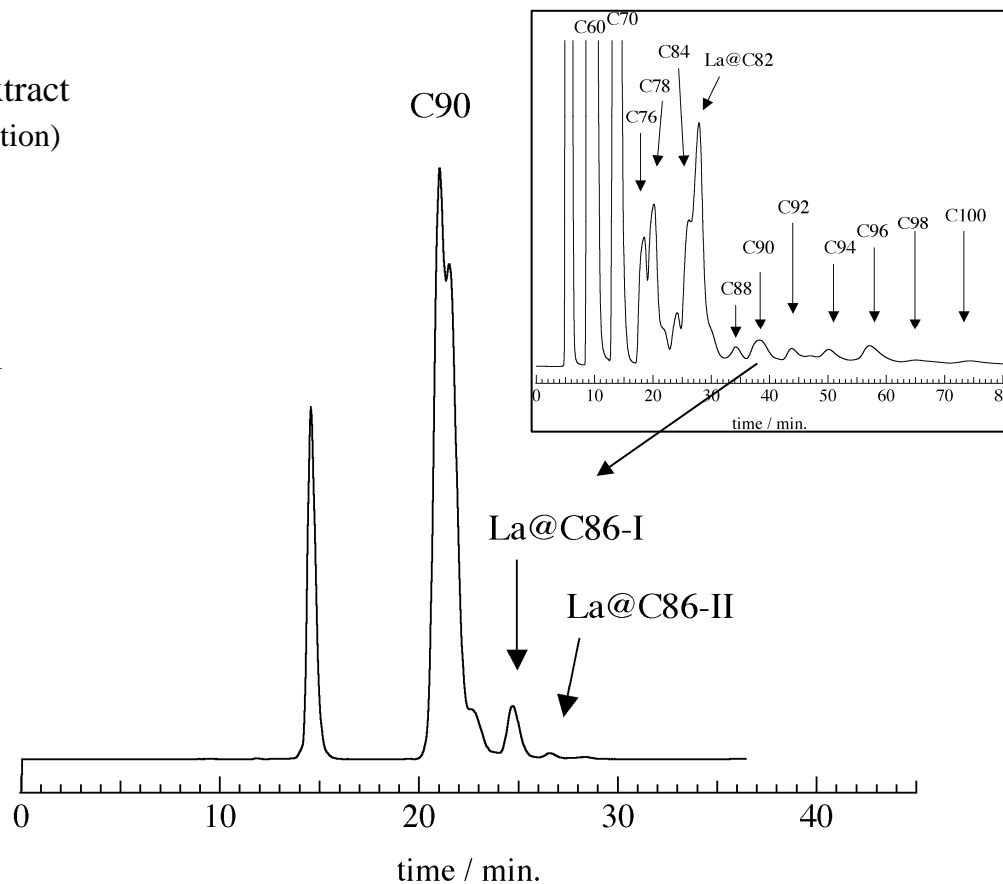
Temperature: Room temperature

Detection: UV 330 nm

Attenuation: -

Sample conc.: -

Injection volume: 2.0 ml



Data courtesy of
Prof. Tatsuhi Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

Sample: La-fullerene CS₂ extract
(PBB-43.5-47.5 min fraction)

CAS No.: -

Molecular formula: C₉₂, La@C₈₈-I,
La@C₈₈-II

Column: 5PYE

Column size: 20 mm I.D.-250 mm

Mobile phase: Chlorobenzene

Flow rate: 6 ml/min

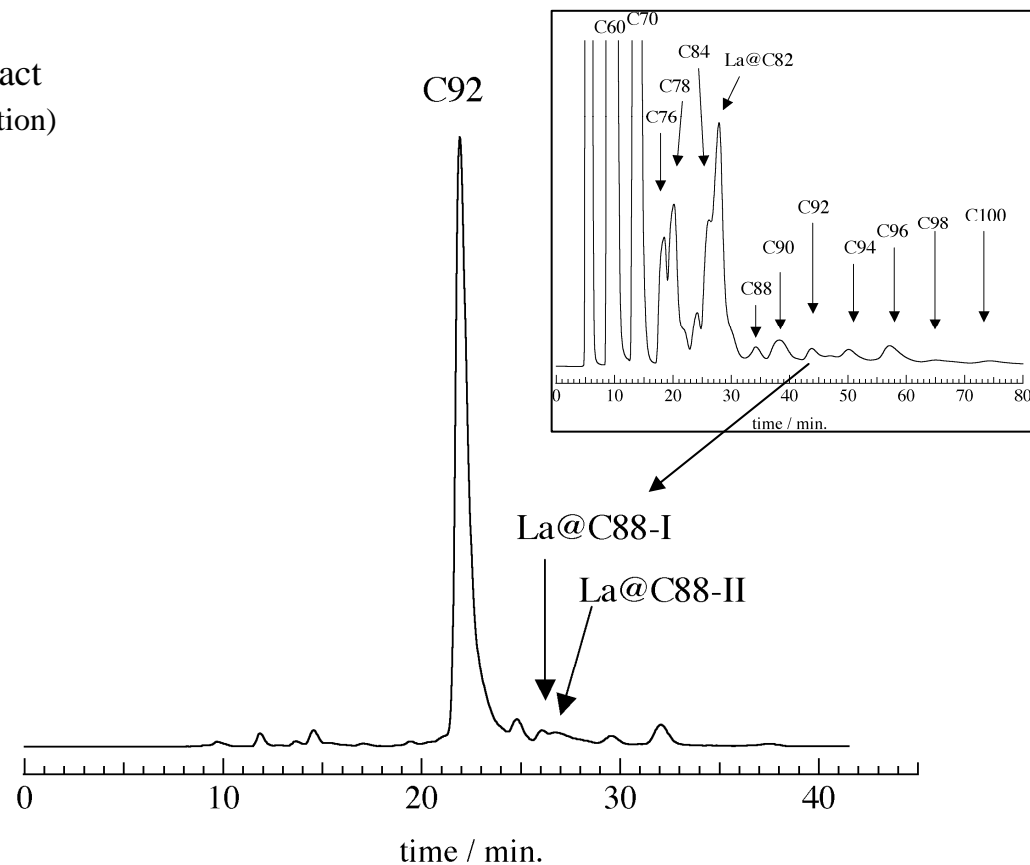
Temperature: Room temperature

Detection: UV 330 nm

Attenuation: -

Sample conc.: -

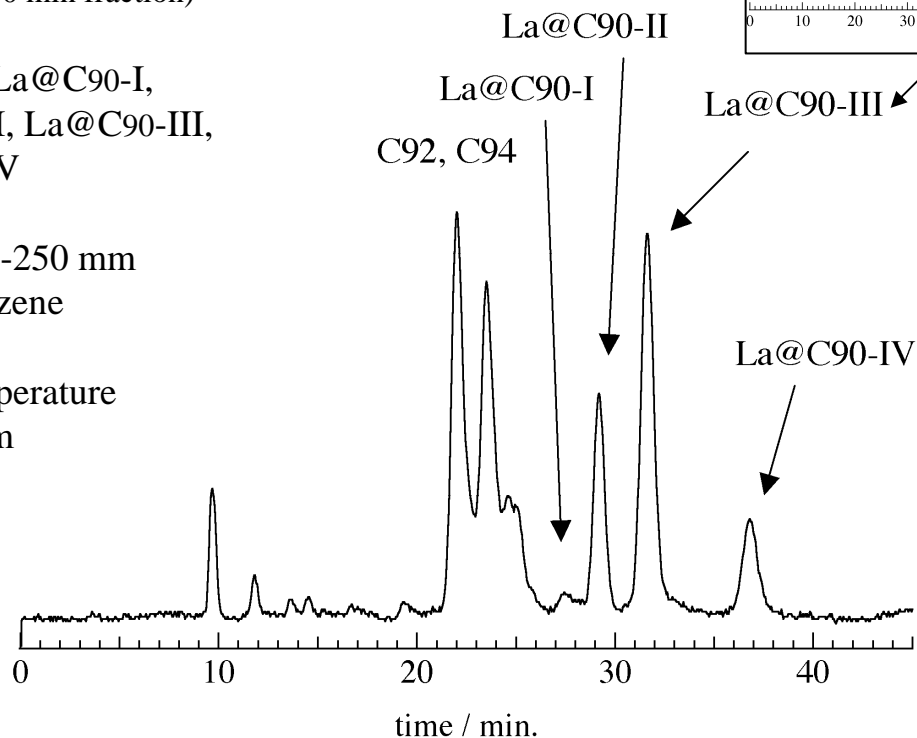
Injection volume: 2.0 ml



Data courtesy of
Prof. Tatsuhisa Kato (Josai University)
Dr. Shingo Okubo (National Institute of Advanced Industrial
Science and Technology)

Fullerene Chromatogram Index

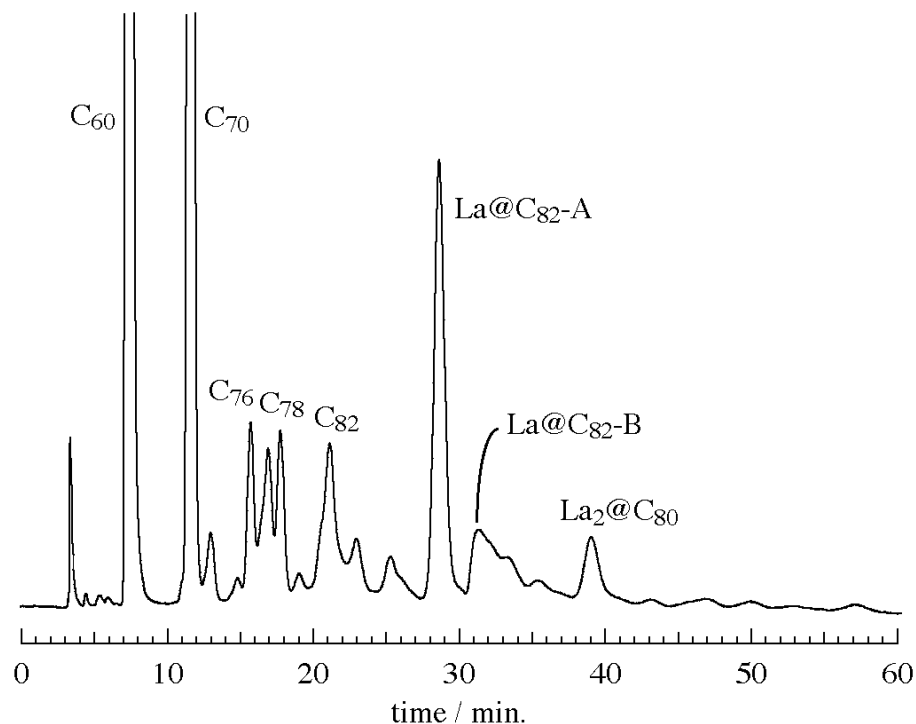
Sample: La-fullerene CS₂ extract
 (PBB-47.5-50 min fraction)
 CAS No.: -
 Molecular formula: C₉₂, C₉₄, La@C₉₀-I,
 La@C₉₀-II, La@C₉₀-III,
 La@C₉₀-IV
 Column: 5PYE
 Column size: 20 mm I.D.-250 mm
 Mobile phase: Chlorobenzene
 Flow rate: 6 ml/min
 Temperature: Room temperature
 Detection: UV 330 nm
 Attenuation: -
 Sample conc.: -
 Injection volume: 25 μl



Data courtesy of
 Prof. Tatsuhi Kato (Josai University)
 Dr. Shingo Okubo (National Institute of Advanced Industrial
 Science and Technology)

Fullerene Chromatogram Index

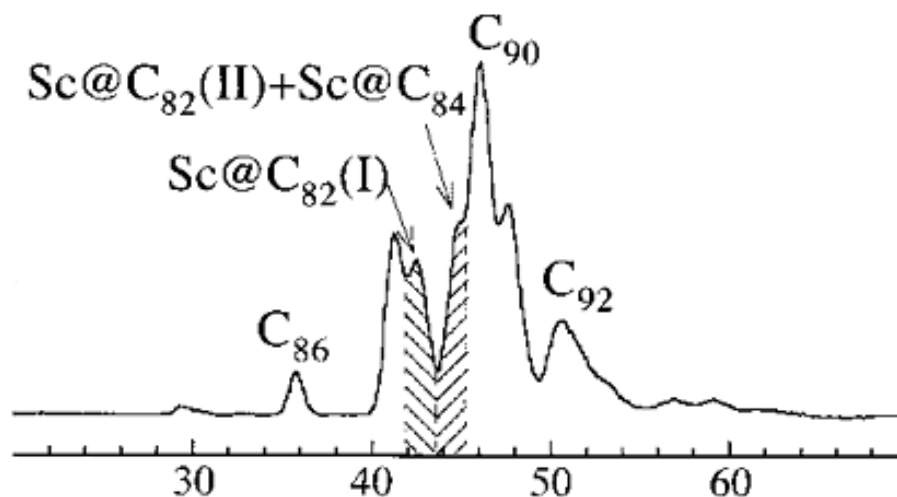
Sample: La-fullerene TCB extract
CAS No.: -
Molecular formula: C₆₀, C₇₀, C₇₆, C₇₈, C₈₂,
La@C₈₂-A, La@C₈₂-B,
La₂@C₈₀
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 313 nm
Attenuation: -
Sample conc.: -
Injection volume: 20 µl



Data courtesy of
Prof. Takeshi Akasaka (Center for Tsukuba Advanced Research
Alliance (TARA Center), University of Tsukuba,
Tsukuba, Ibaraki 305-8577, Japan)

Fullerene Chromatogram Index

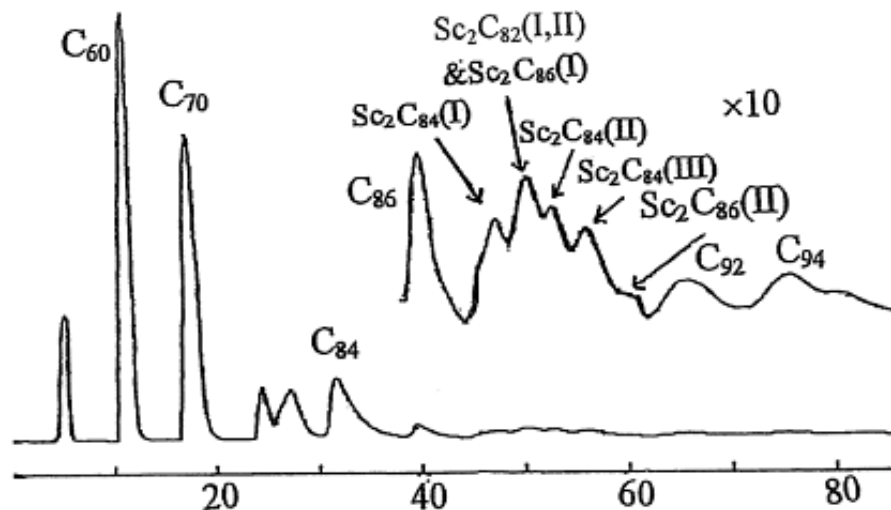
Sample: Sc-monometallofullerene
CAS No.: -
Molecular formula: Sc@C₈₂, Sc@C₈₄
Column: Buckyprep
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 18 ml/min
Temperature: Room temperature
Detection: UV 280 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *J. Phys. Chem. B.*, **2000**, *104*, 7595-7599.

Fullerene Chromatogram Index

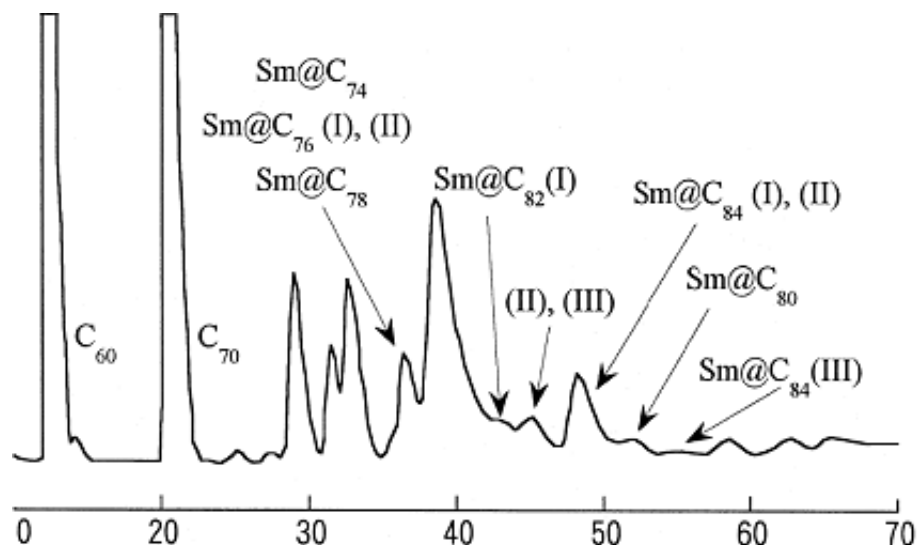
Sample: Sc-dimetallofullerene
CAS No.: -
Molecular formula: Sc₂@C₈₂~86
Column: Buckyprep
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 18 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *Chem. Phys. Lett.*, **1999**, **300**, 379-384.

Fullerene Chromatogram Index

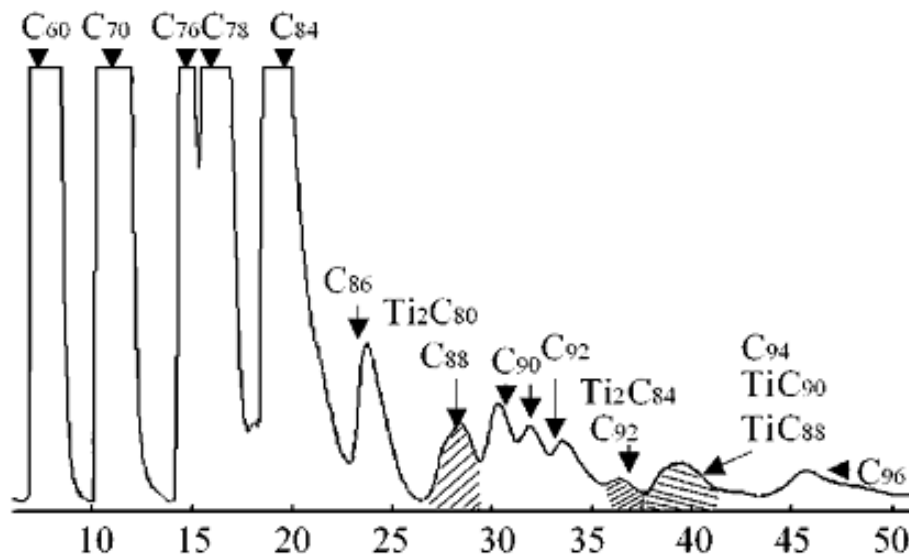
Sample: Sm-monometallofullerene
CAS No.: -
Molecular formula: Sm@C₇₄~84
Column: Buckyprep
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 12 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *Chem. Phys. Lett.*, **2000**, **320**, 435-440.

Fullerene Chromatogram Index

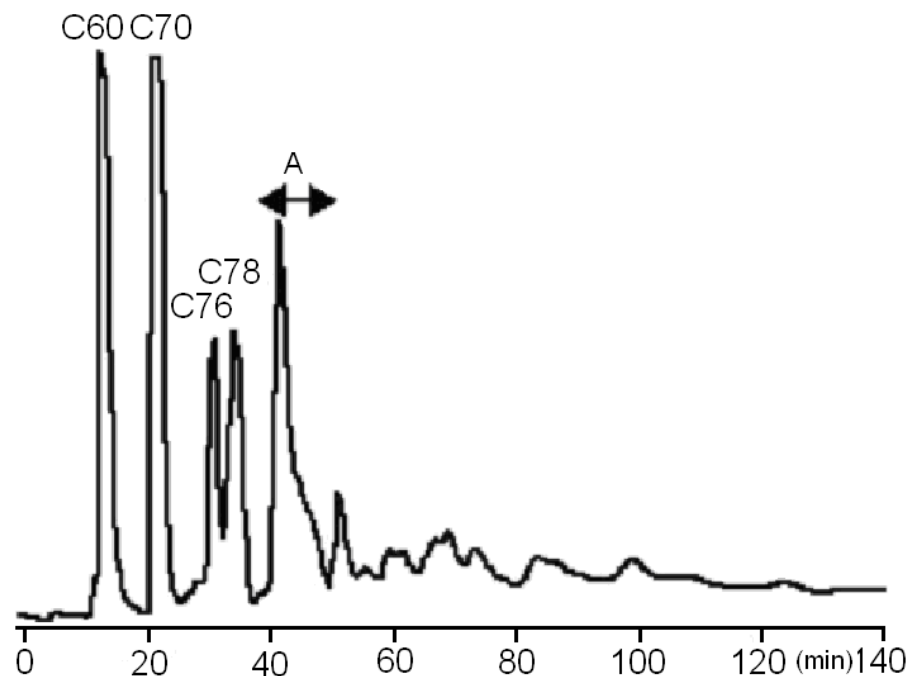
Sample: Ti-dimetallofullerene
CAS No.: -
Molecular formula: $Ti_2@C_{80}$, $Ti_2@C_{84}$
Column: 5PYE
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 18 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *J. Am. Chem. Soc.*, **2001**, *123*, 9679-9680.

Fullerene Chromatogram Index

Sample: Empty fullerenes and Tm-metallofullerenes
CAS No.: -
Molecular formula: C60, C70, C76, C78
Column: Buckyprep
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 12 ml/min
Temperature: -
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Tm-metallofullerenes
(Buckyprep-Fraction A)

CAS No.: -

Molecular formula: C₈₄, Tm@C₈₂(I), Tm@C₈₂(II),
Tm@C₈₂(III)

Column: Buckyprep x 2

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

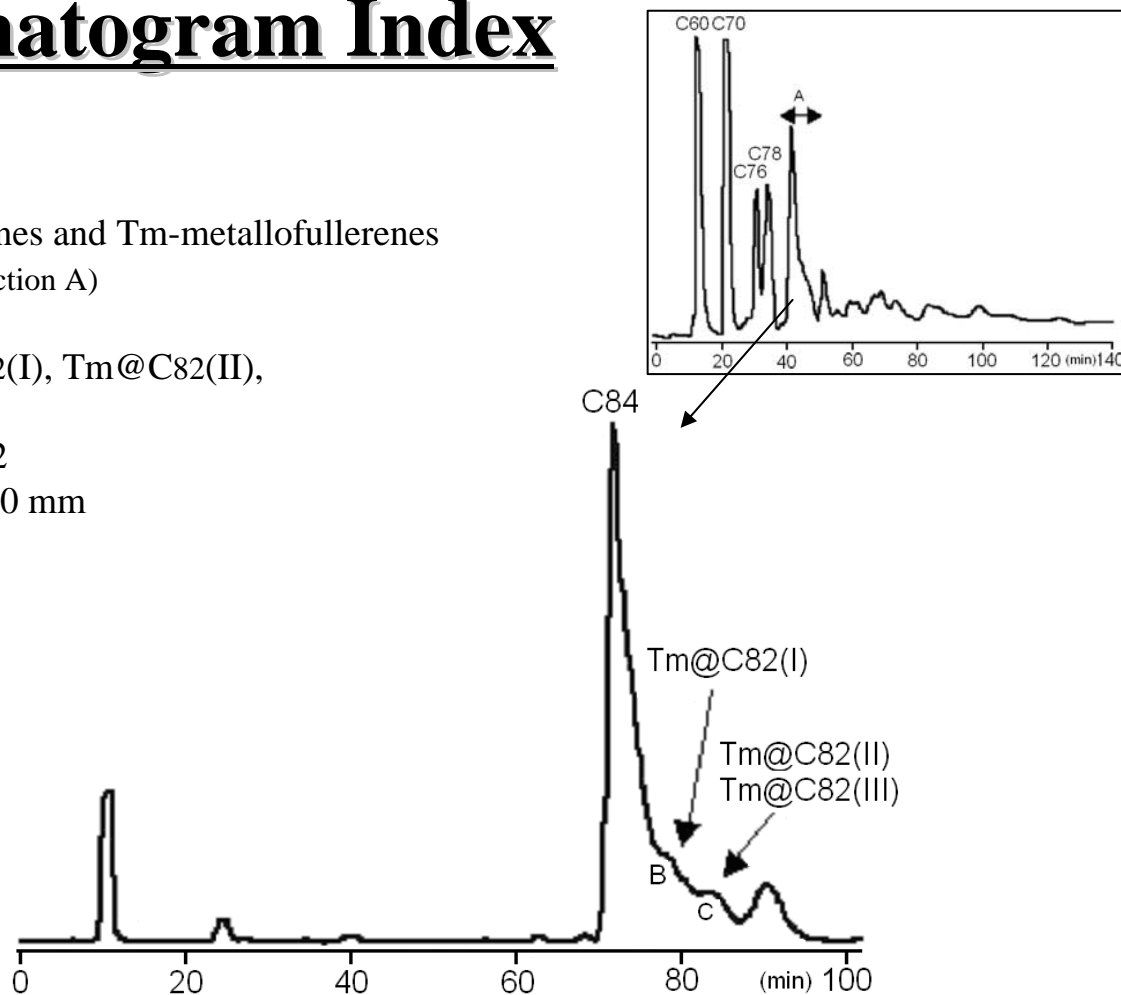
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Tm-metallofullerenes
(Buckyprep-Fraction B)

CAS No.: -

Molecular formula: Tm@C82(I)

Column: Buckyprep x 2

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

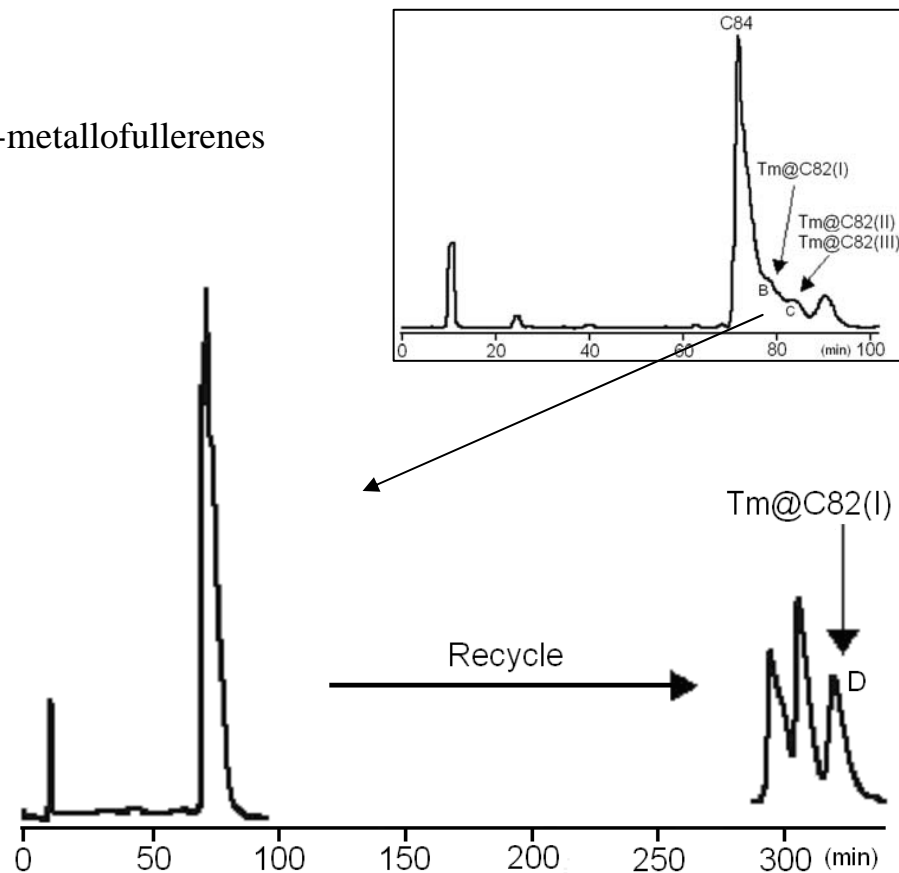
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

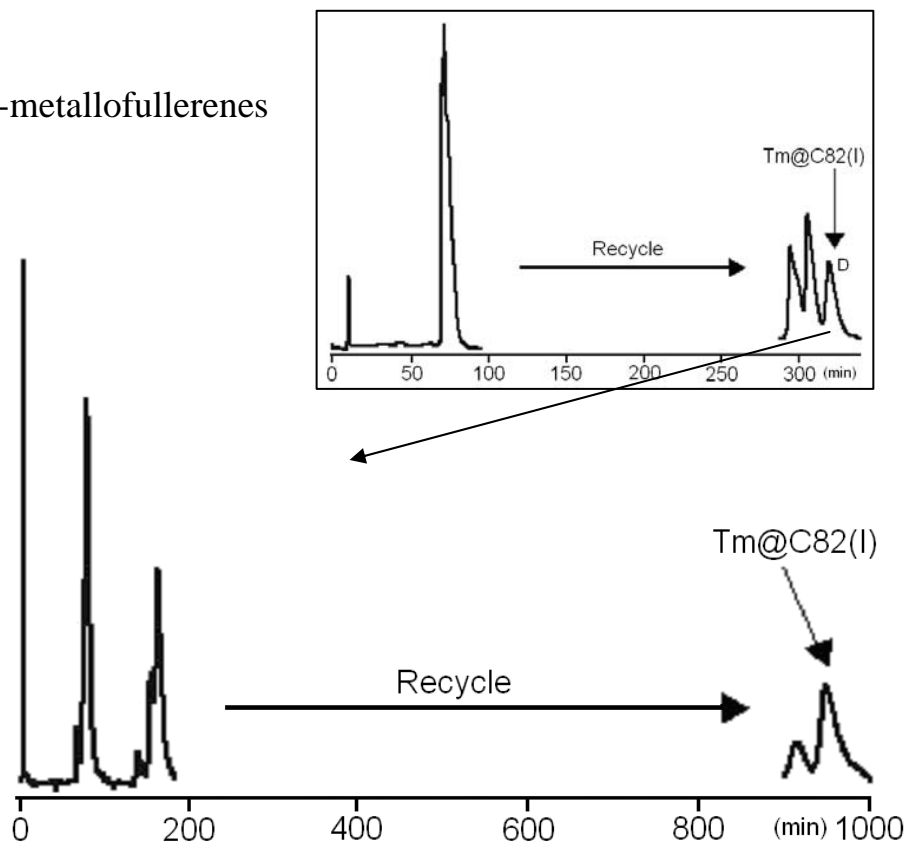
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Tm-metallofullerenes (Buckyprep-Fraction D)
CAS No.: -
Molecular formula: Tm@C82(I)
Column: 5PBB
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 12 ml/min
Temperature: -
Detection: UV 340 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

Sample: Empty fullerenes and Tm-metallofullerenes
(Buckyprep-Fraction C)

CAS No.: -

Molecular formula: Tm@C82(II), Tm@C82(III)

Column: Buckyprep x2

Column size: 20 mm I.D.-250 mm

Mobile phase: Toluene

Flow rate: 12 ml/min

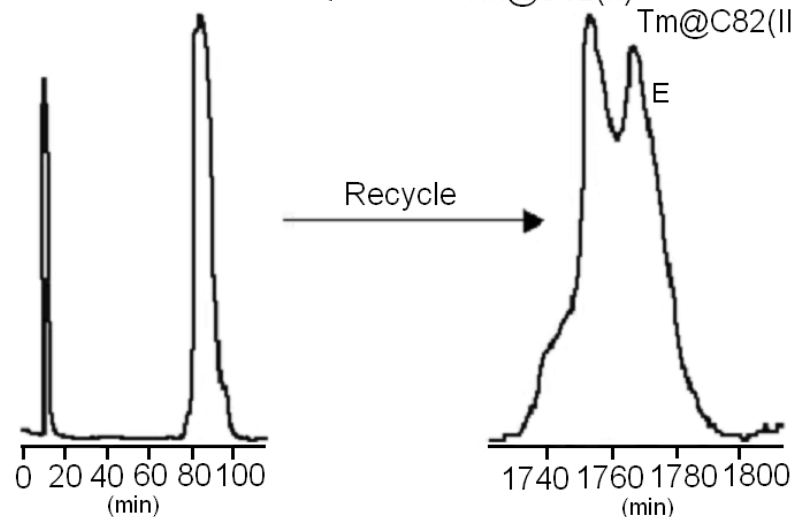
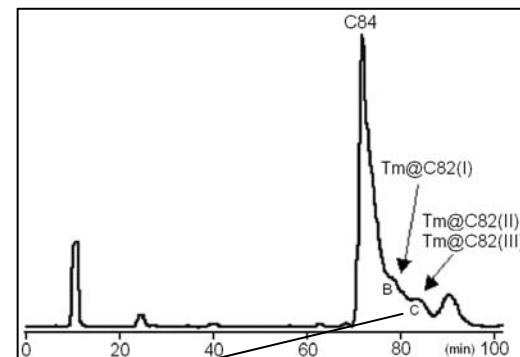
Temperature: -

Detection: UV 340 nm

Attenuation: -

Sample conc.: -

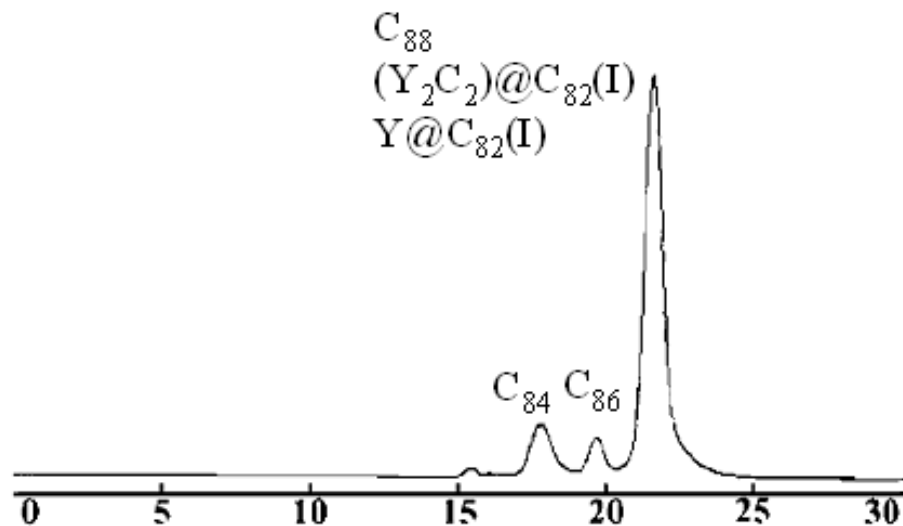
Injection volume: -



Data courtesy of
Dr. Takeshi Kodama, Dr. Shinzo Suzuki, Prof. Koichi Kikuchi
Prof. Yohji Achiba
(Department of Chemistry, Tokyo Metropolitan University)

Fullerene Chromatogram Index

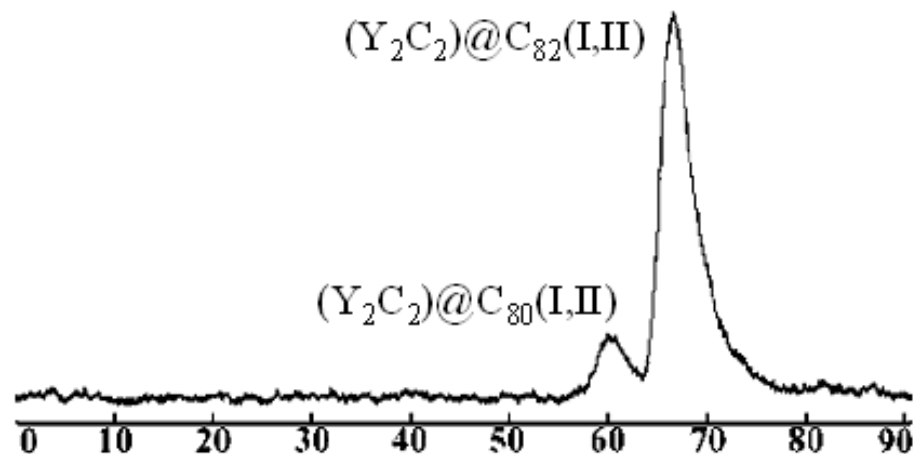
Sample: Y-mono&dimetallofullerene
CAS No.: -
Molecular formula: Y₂C₂@C₈₂, Y@C₈₂
Column: 5PYE
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 18 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *J. Phys. Chem. B.*, **2004**, *108*, 7573-7579.

Fullerene Chromatogram Index

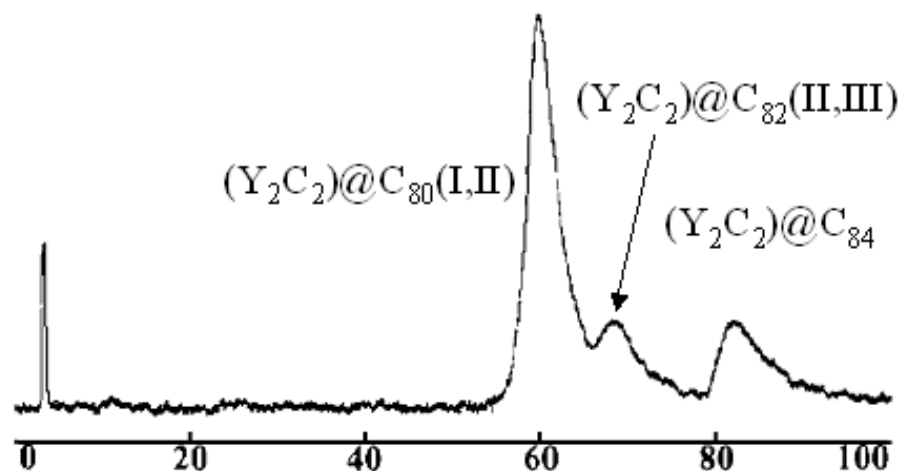
Sample: Y-dimetallofullerene
CAS No.: -
Molecular formula: $(Y_2C_2)@C_{80}$, $(Y_2C_2)@C_{82}$
Column: 5PBB
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 20 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *J. Phys. Chem. B.*, **2004**, *108*, 7573-7579.

Fullerene Chromatogram Index

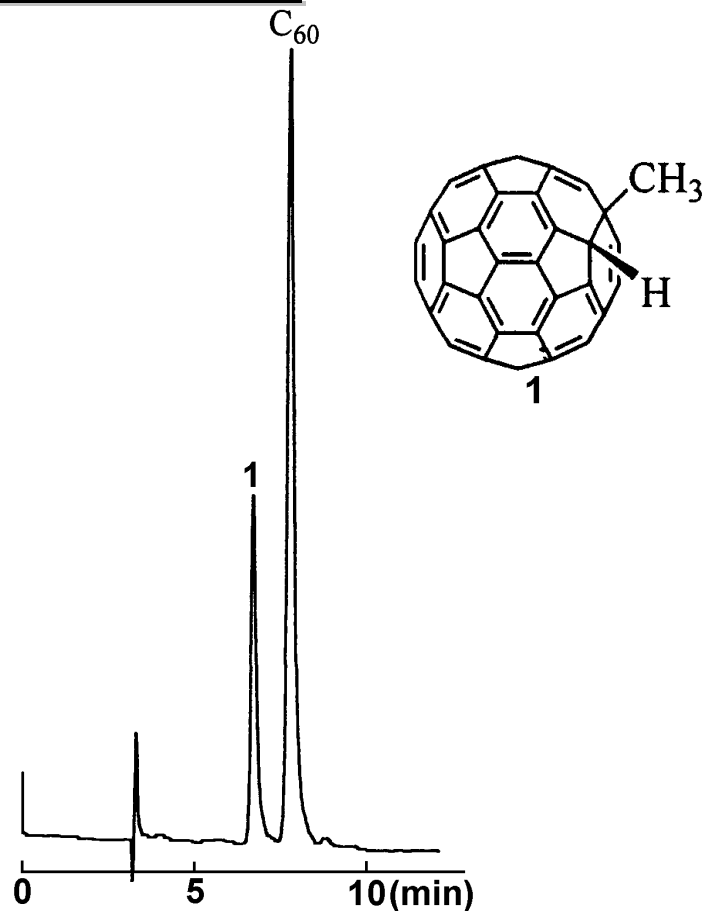
Sample: Y-dimetallofullerene
CAS No.: -
Molecular formula: $(Y_2C_2)@C_{80\sim 84}$
Column: 5PBB
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 20 ml/min
Temperature: Room temperature
Detection: UV 312 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hisanori Shinohara, Mr. Yasuhiro Ito
(Department of Chemistry, Nagoya University)
Ref. *J. Phys. Chem. B.*, **2004**, **108**, 7573-7579.

Fullerene Chromatogram Index

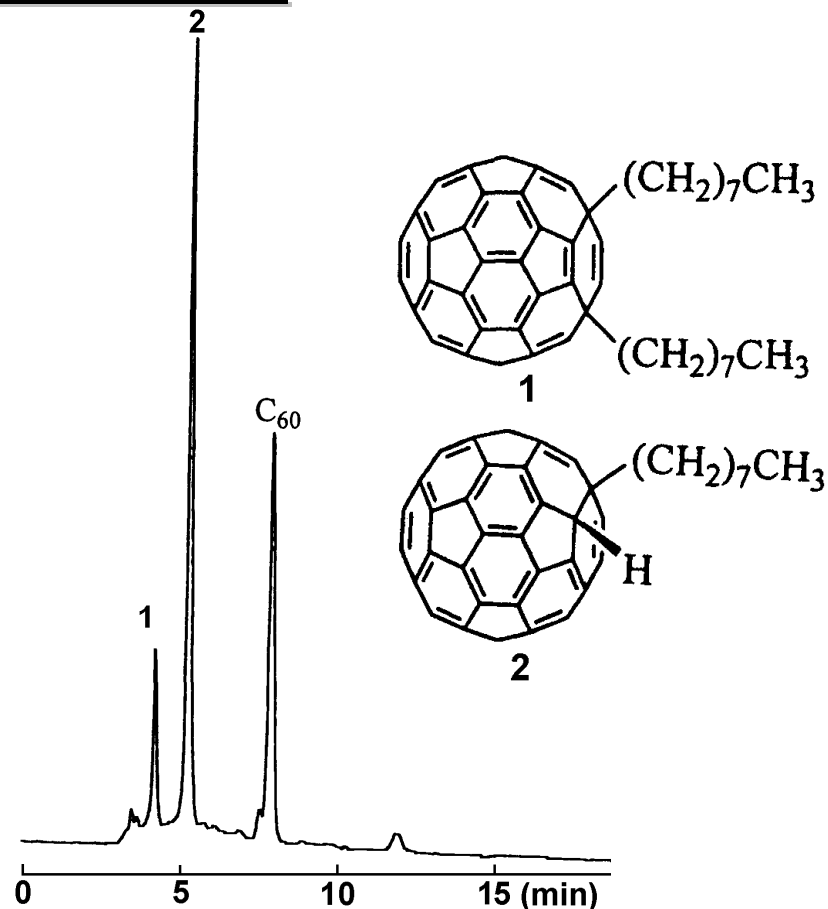
Sample: 1,2-C₆₀(CH₃)H
CAS No.: -
Molecular formula: C₆₁H₄
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

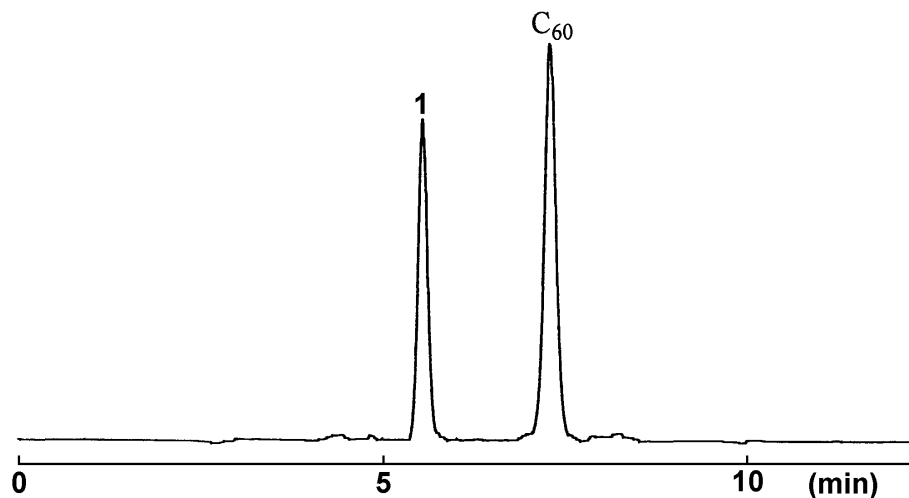
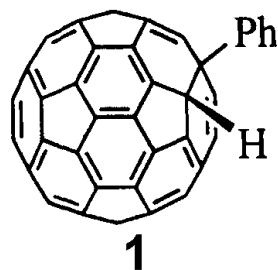
Sample: 1,4-C₆₀[(CH₂)₇CH₃]₂,
1,2-C₆₀[(CH₂)₇CH₃]H
CAS No.: -
Molecular formula: C₇₆H₃₄, C₆₈H₁₈
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

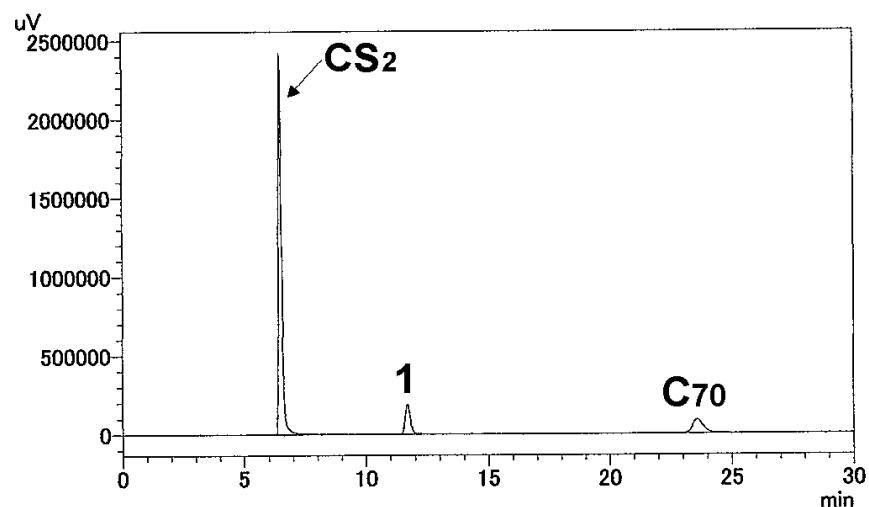
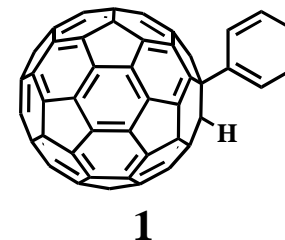
Sample: 1,2-C₆₀(Ph)H
CAS No.: -
Molecular formula: C₆₆H₆
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 µl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

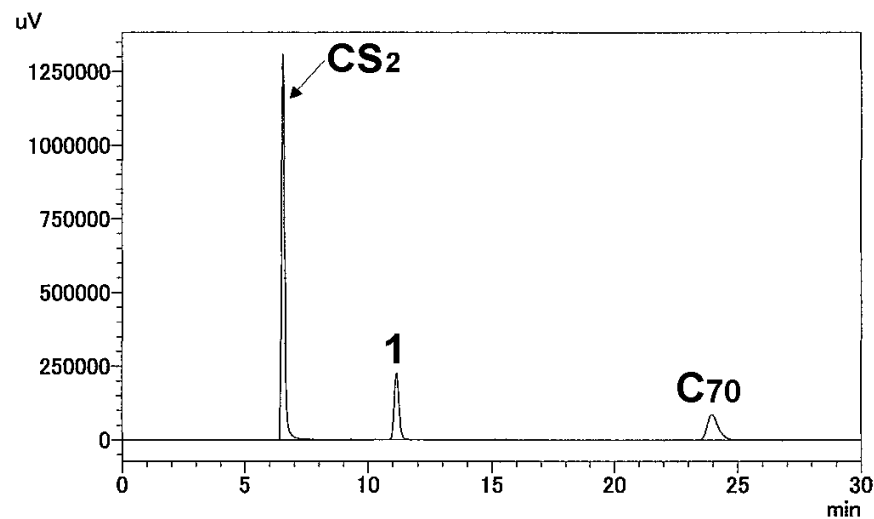
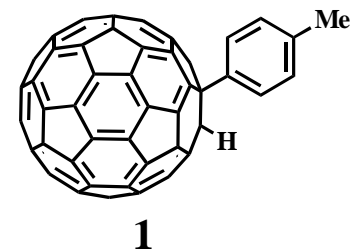
Sample: 1-Phenyl-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₆H₆
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

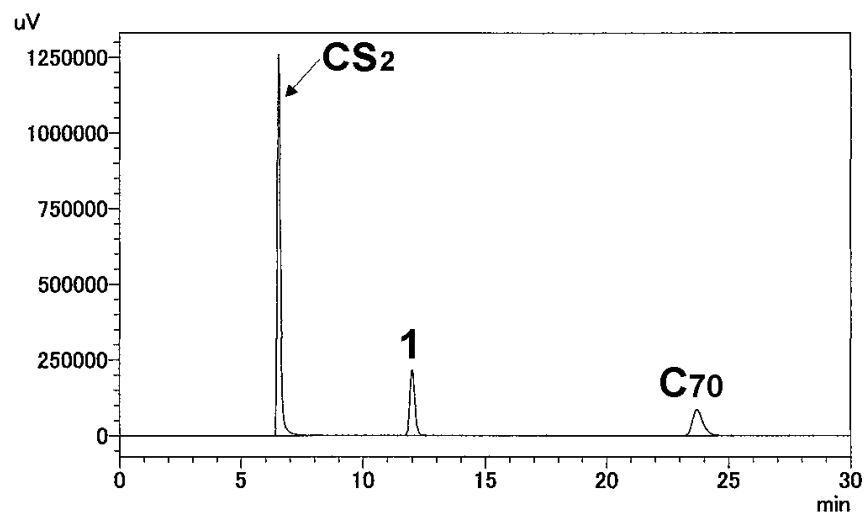
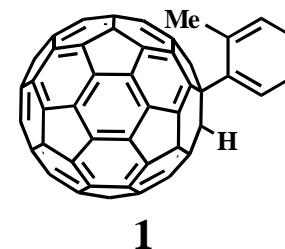
Sample: 1-(4-Methylphenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₇H₈
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

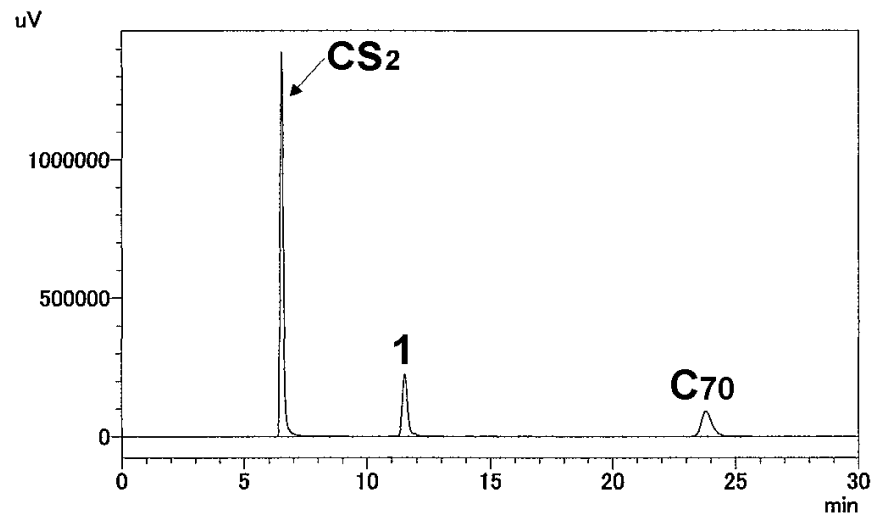
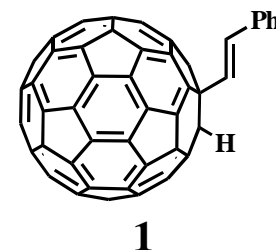
Sample: 1-(2-Methylphenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₇H₈
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

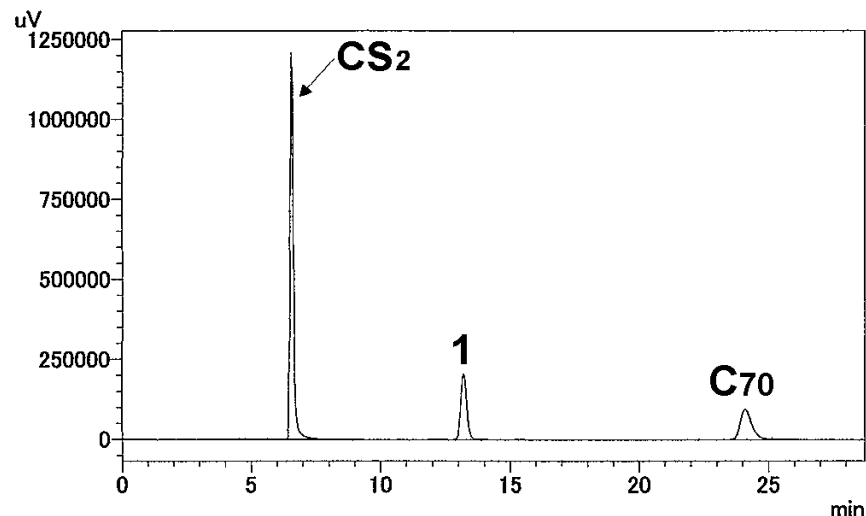
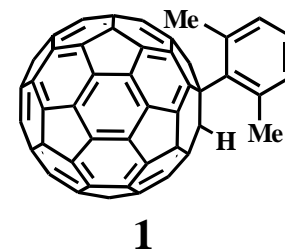
Sample: 1-[(*E*)-Styryl]-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₈H₈
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 μl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

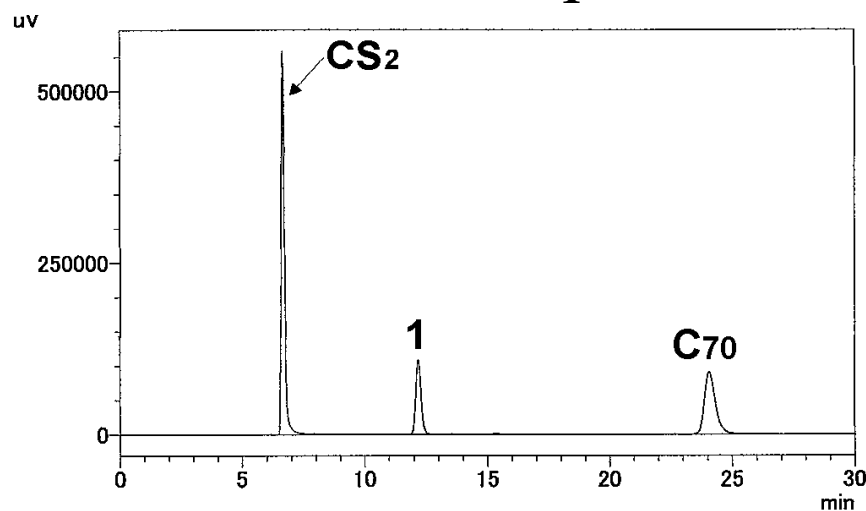
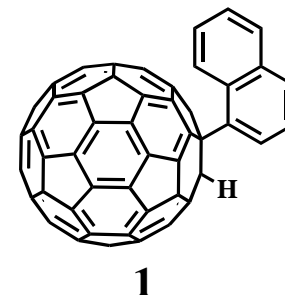
Sample: 1-(2,6-Dimethylphenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₈H₁₀
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

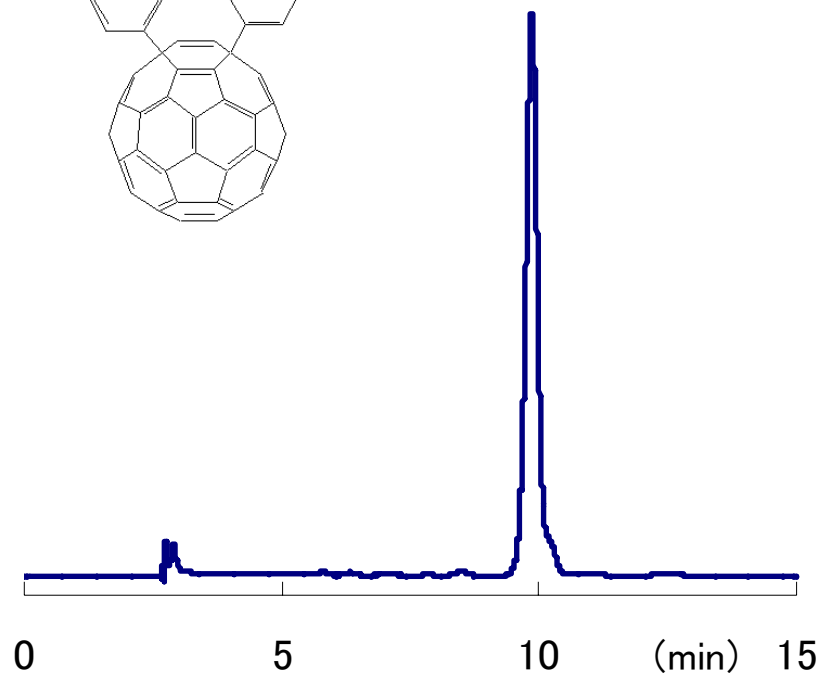
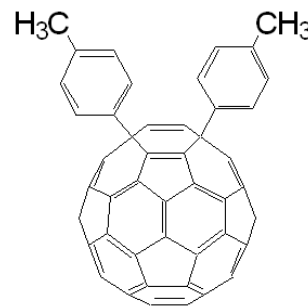
Sample: 1-(1-Naphthyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₇₀H₈
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

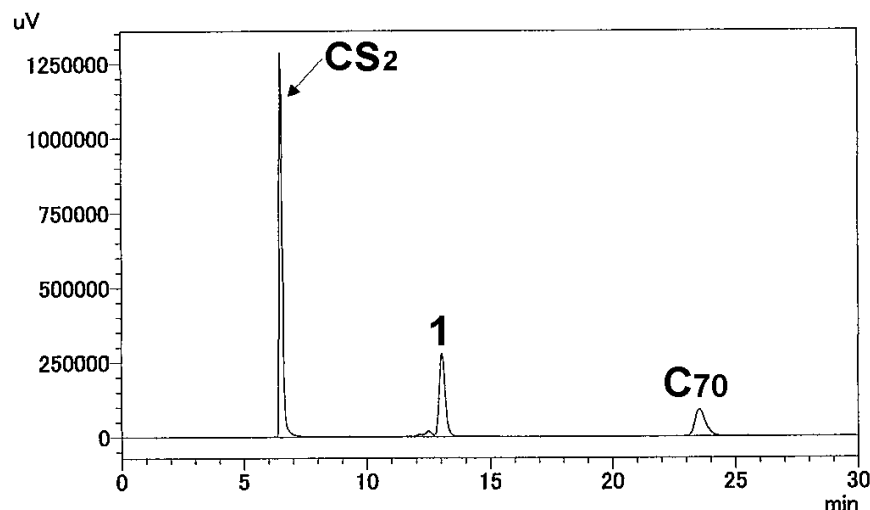
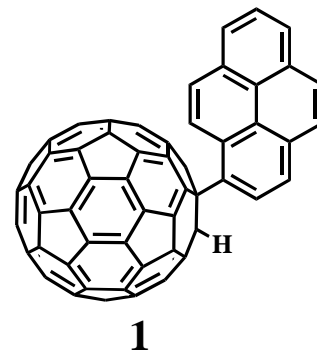
Sample: 1,4-bis(*p*-tolyl)-1,4-dihydro-
[60] fullerene
CAS No.: -
Molecular formula: C₆₀(*p*-C₆H₄CH₃)₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : Acetonitrile = 66 : 34
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV 304 nm
Attenuation: 294 mAU
Sample conc.: 0.71 mg/ml
Injection volume: 5 μl



Data courtesy of
Yusuke Tajima, Dr. Sci. (Nano-Integration Materials Research Unit
RIKEN (Institute of Physics and Chemistry)),
2-1 Hirosawa, Wako, Saitama 351-0198, Japan

Fullerene Chromatogram Index

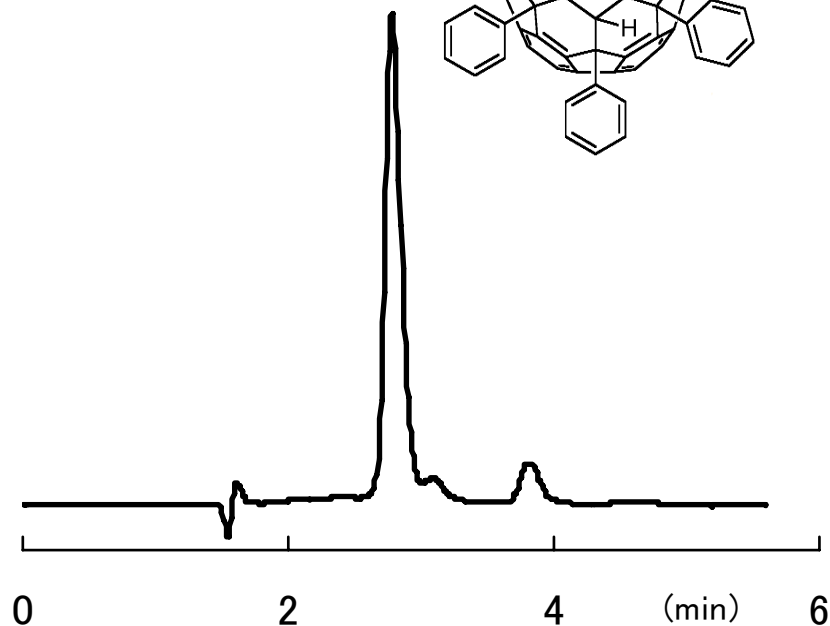
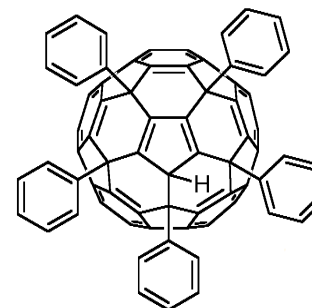
Sample: 1-(1-Pyrenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₇₆H₁₀
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

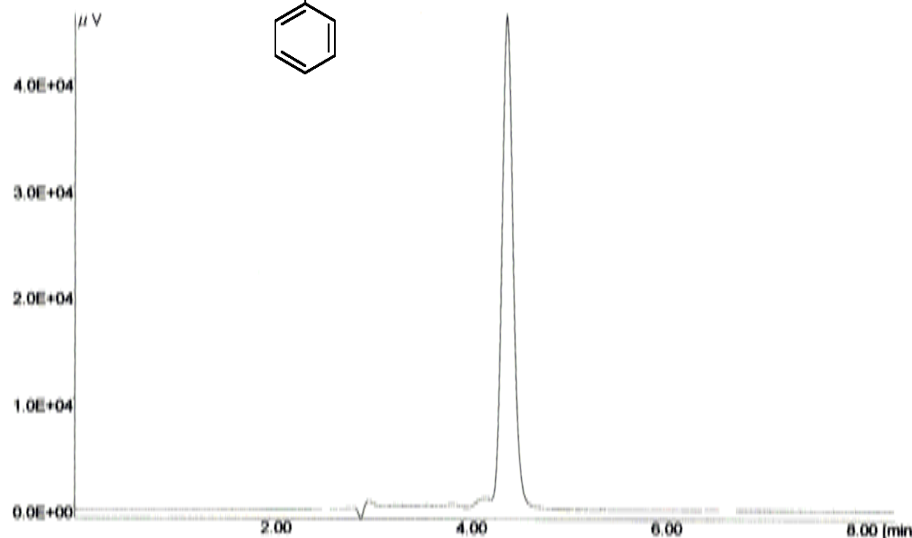
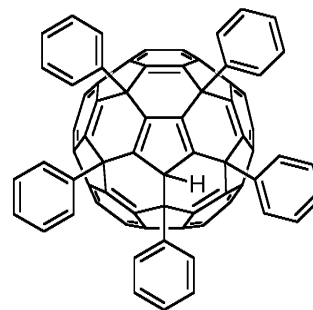
Sample: C60Ph5H
CAS No.: -
Molecular formula: C90H26
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 µl



Data courtesy of
Dr. Yutaka Matsuo and Prof. Eiichi Nakamura (Nakamura
Functional Carbon Cluster Project, ERATO, Japan Science
and Technology Agency)

Fullerene Chromatogram Index

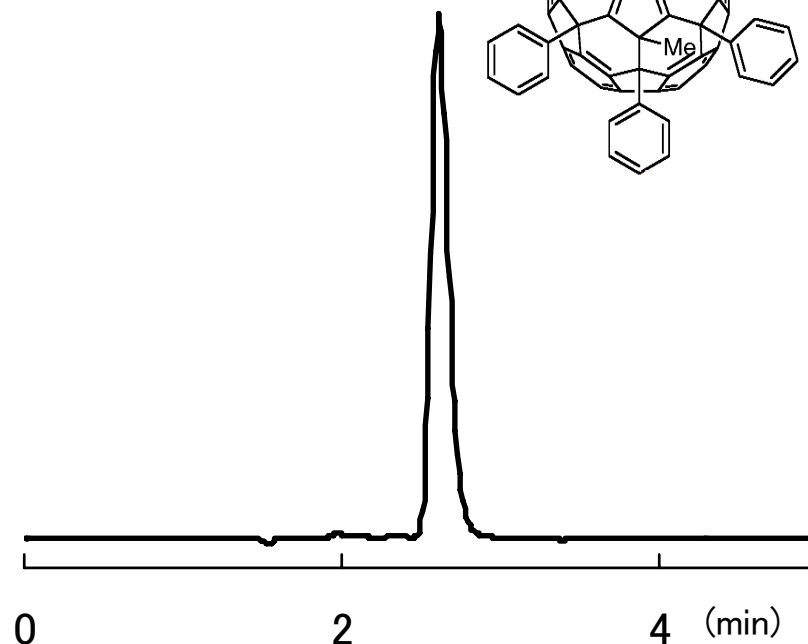
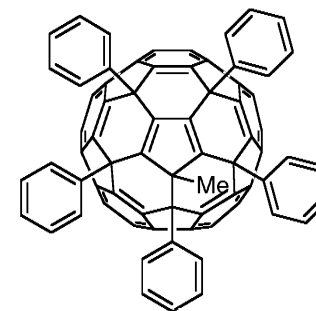
Sample: HC60Ph5
CAS No.: -
Molecular formula: C₉₀H₂₆
Column: 5C18-MS-II
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : IPA = 30 : 70
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

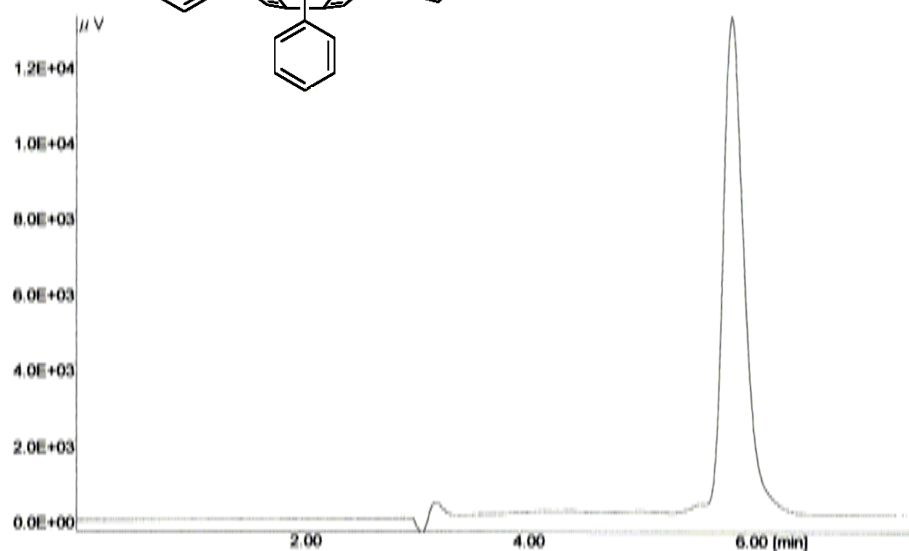
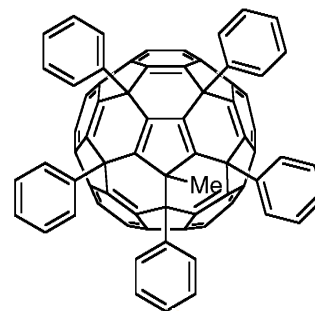
Sample: C60Ph5Me
CAS No.: -
Molecular formula: C91H28
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 µl



Data courtesy of
Dr. Yutaka Matsuo and Prof. Eiichi Nakamura (Nakamura
Functional Carbon Cluster Project, ERATO, Japan Science
and Technology Agency)

Fullerene Chromatogram Index

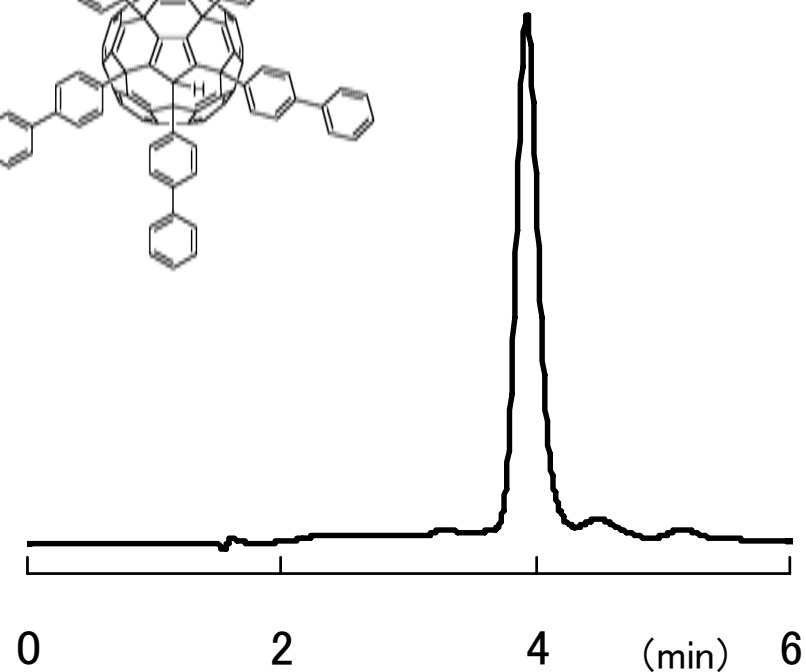
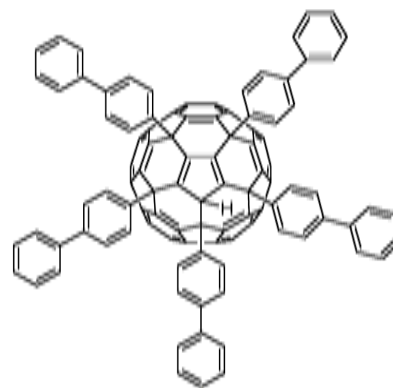
Sample: MeC60Ph5
CAS No.: -
Molecular formula: C₉₁H₂₈
Column: 5C18-MS-II
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 20 : 80
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

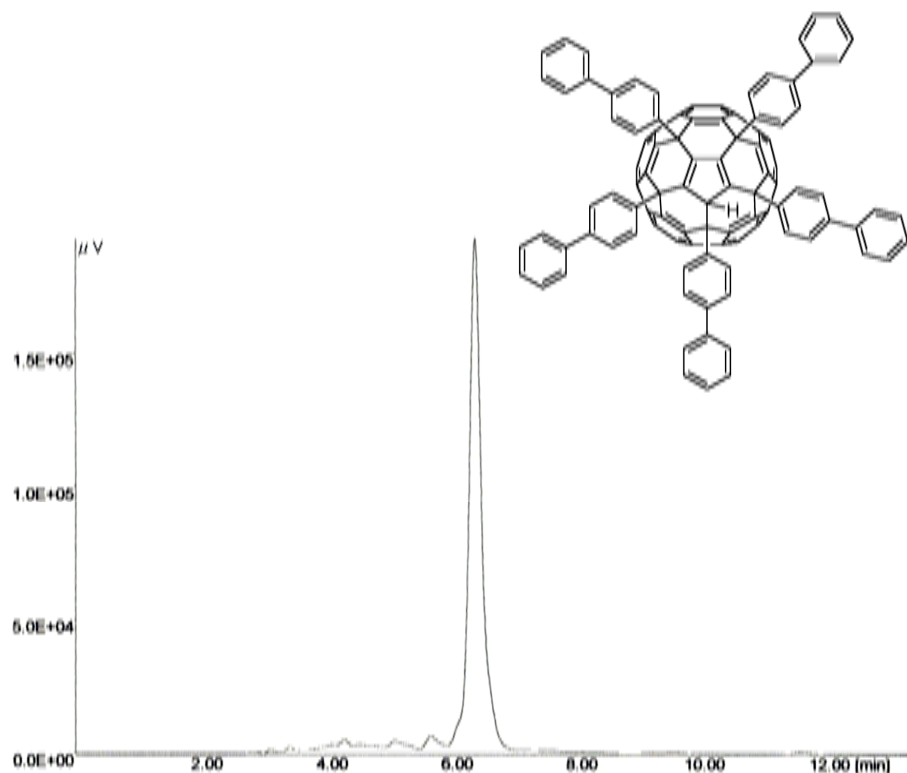
Sample: C60(biphenyl)5H
CAS No.: -
Molecular formula: C120H46
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 µl



Data courtesy of
Dr. Yutaka Matsuo and Prof. Eiichi Nakamura (Nakamura
Functional Carbon Cluster Project, ERATO, Japan Science
and Technology Agency)

Fullerene Chromatogram Index

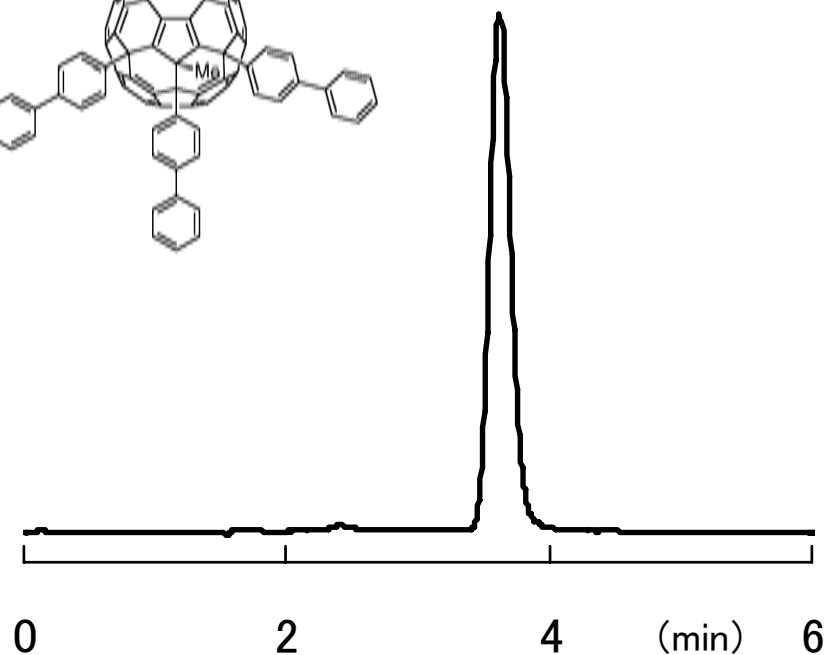
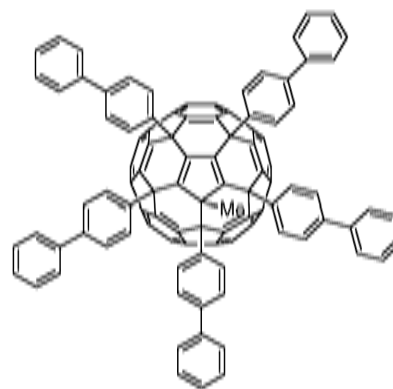
Sample: HC60(biphenyl)5
CAS No.: -
Molecular formula: C₁₂₀H₄₆
Column: 5C18-MS-II
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : IPA = 25 : 75
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

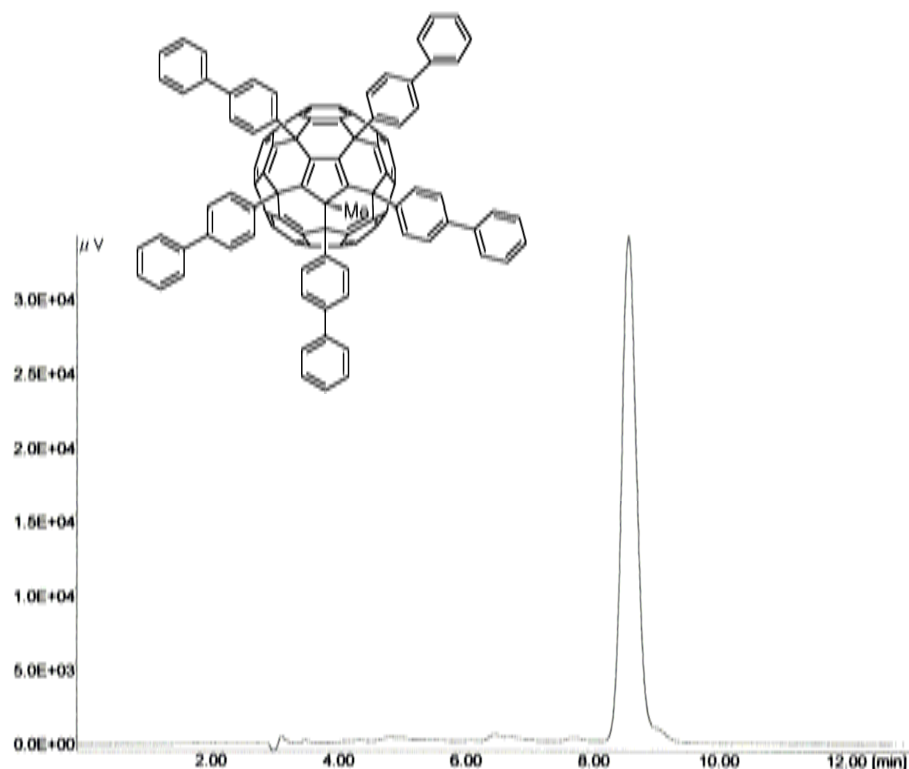
Sample: C60(biphenyl)5Me
CAS No.: -
Molecular formula: C₁₂₁H₄₈
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 μl



Data courtesy of
Dr. Yutaka Matsuo and Prof. Eiichi Nakamura (Nakamura
Functional Carbon Cluster Project, ERATO, Japan Science
and Technology Agency)

Fullerene Chromatogram Index

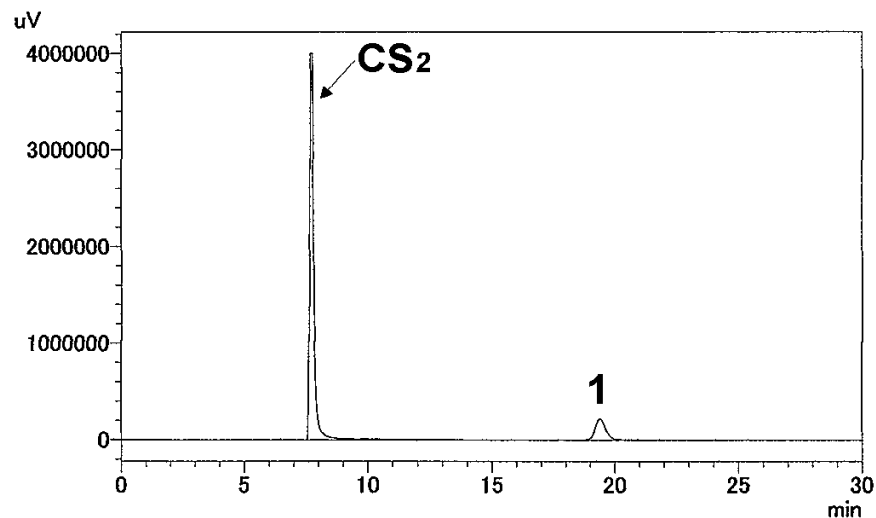
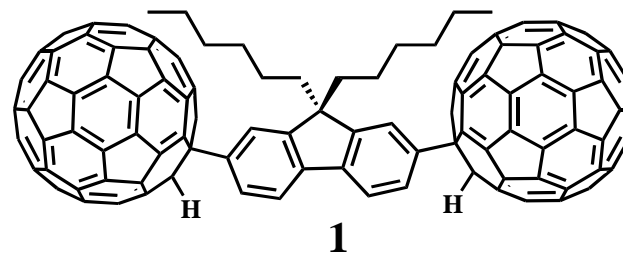
Sample: MeC60(biphenyl)5
CAS No.: -
Molecular formula: C₁₂₁H₄₈
Column: 5C18-MS-II
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : IPA = 20 : 80
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

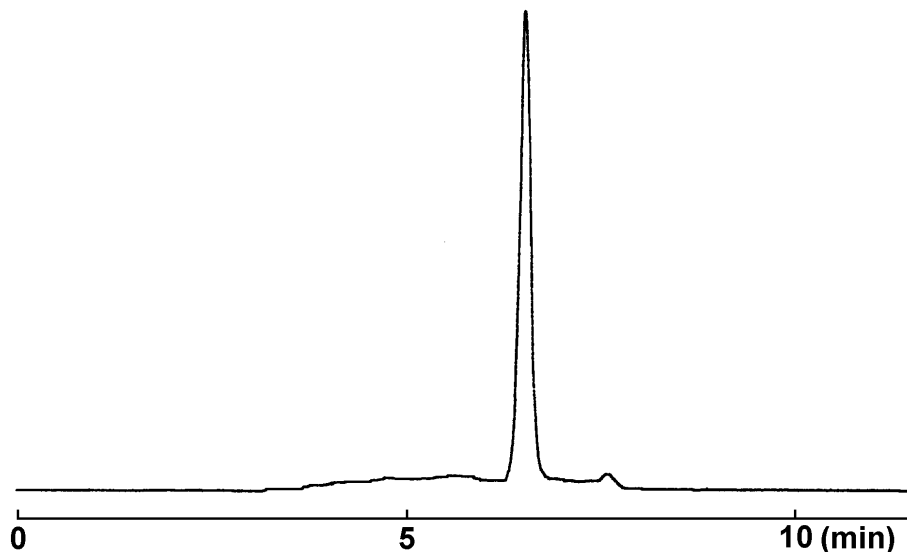
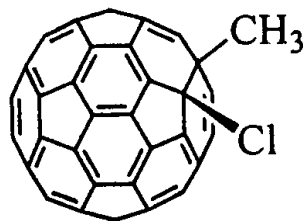
Sample: HC60(C25H32)C60H
CAS No.: -
Molecular formula: C145H34
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

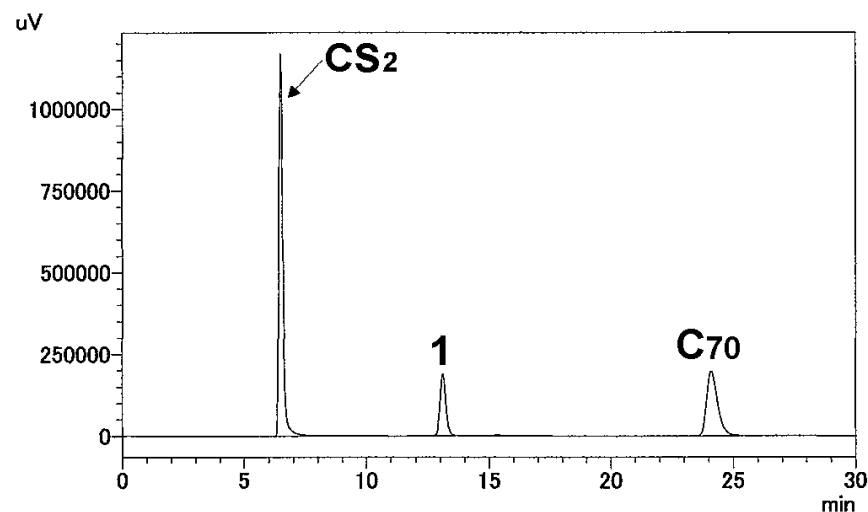
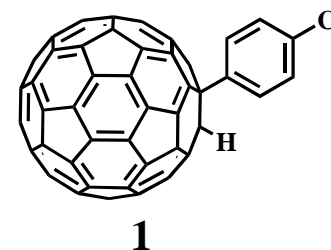
Sample: 1,2-C₆₀(CH₃)Cl
CAS No.: -
Molecular formula: C₆₁H₃Cl
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 µl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

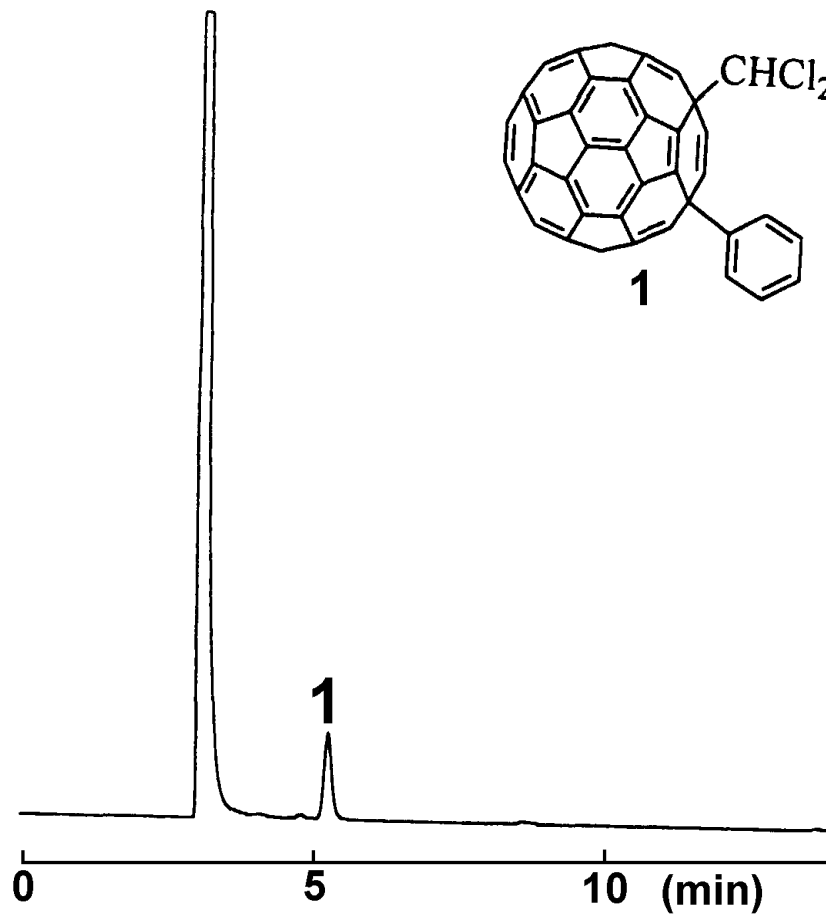
Sample: 1-(4-Chlorophenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₆H₅Cl
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

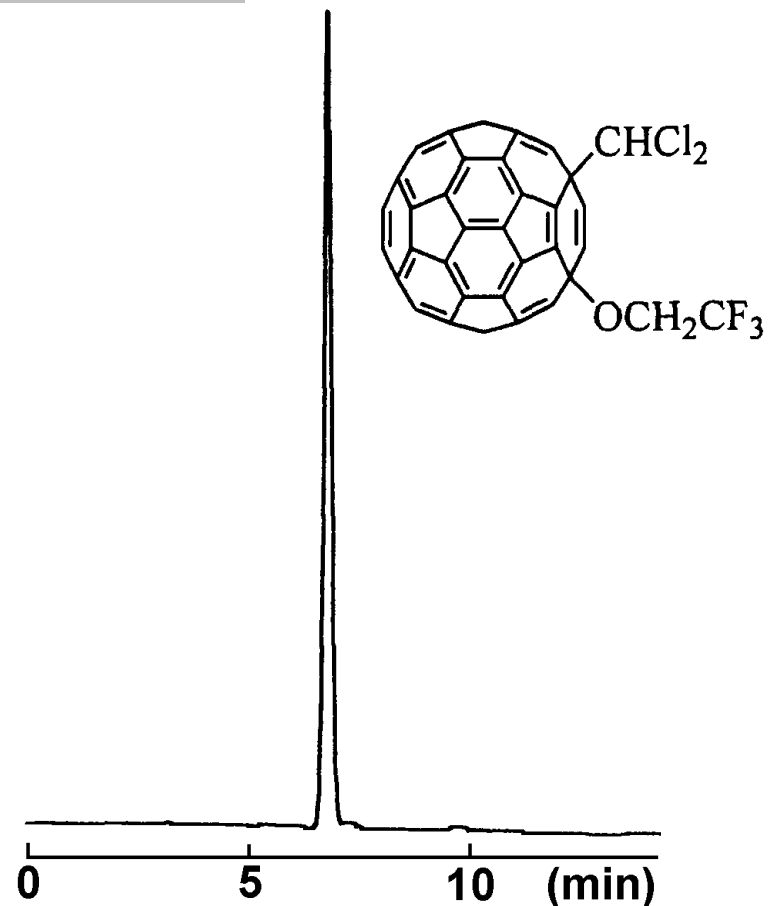
Sample: 1,4-C₆₀(CHCl₂)Ph
CAS No.: -
Molecular formula: C₆₇H₆Cl₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

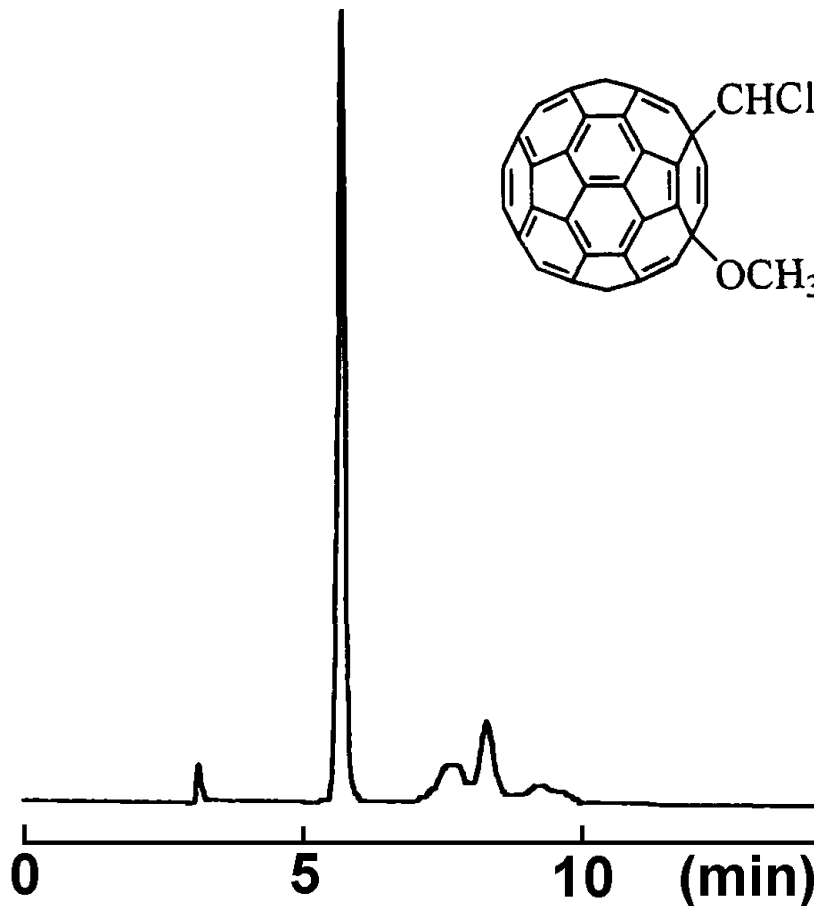
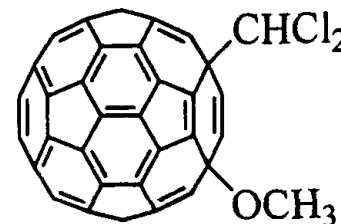
Sample: 1,4-C₆₀(CHCl₂)OCH₂CF₃
CAS No.: -
Molecular formula: C₆₃H₃Cl₂F₃O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

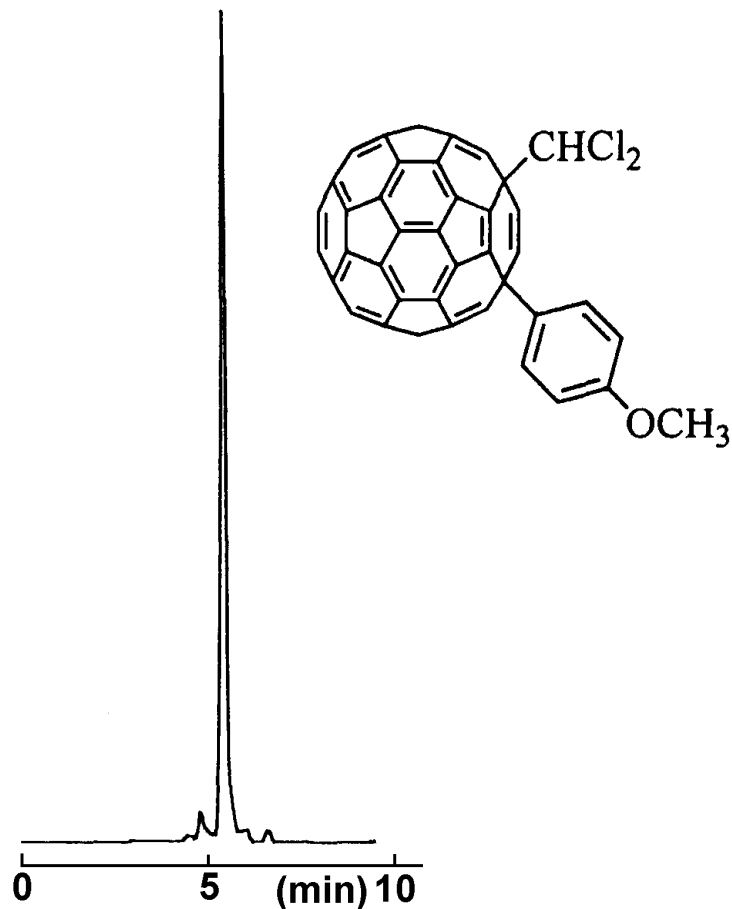
Sample: 1,4-C₆₀(CHCl₂)OCH₃
CAS No.: -
Molecular formula: C₆₂H₄Cl₂O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

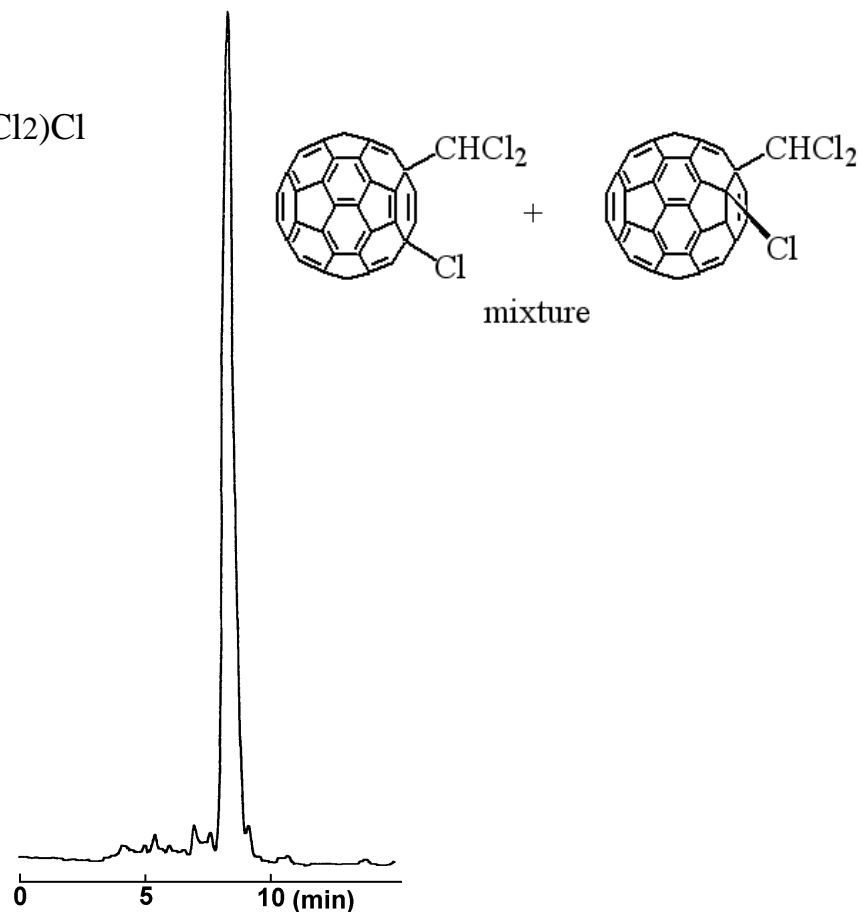
Sample: 1,4-C₆₀(CHCl₂)(C₆H₄OCH₃-*p*)
CAS No.: -
Molecular formula: C₆₈H₈Cl₂O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

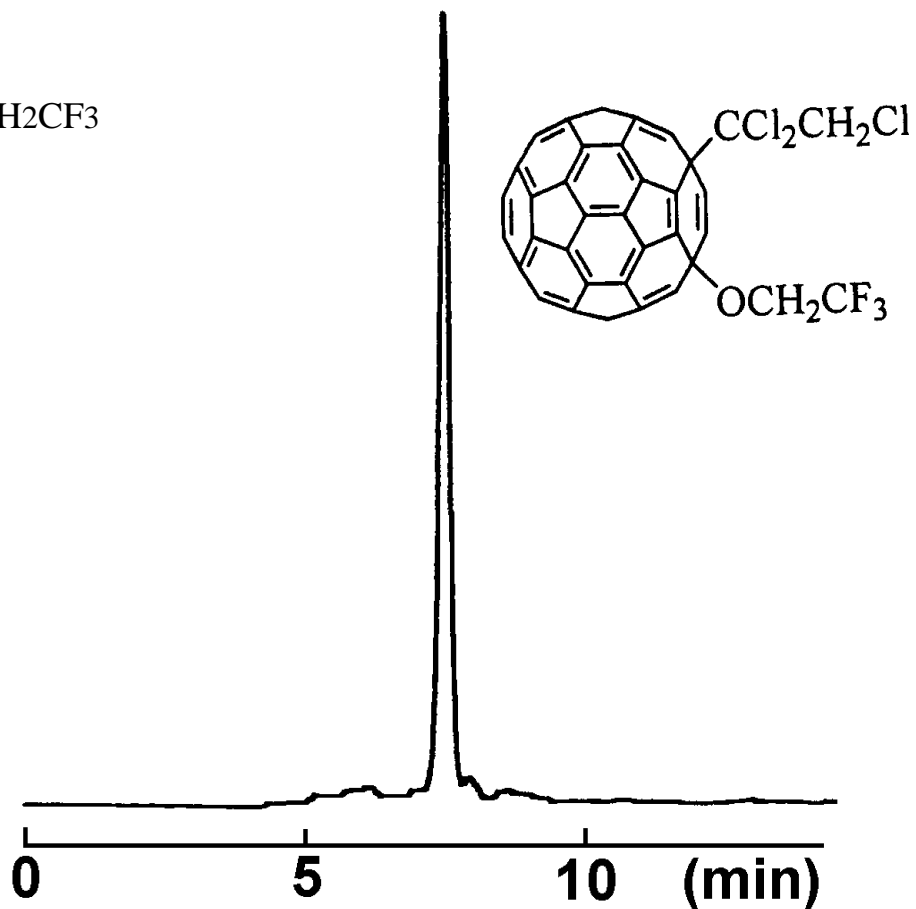
Sample: 1,4-C₆₀(CHCl₂)Cl, 1,2-C₆₀(CHCl₂)Cl
CAS No.: -
Molecular formula: C₆₁HCl₃
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

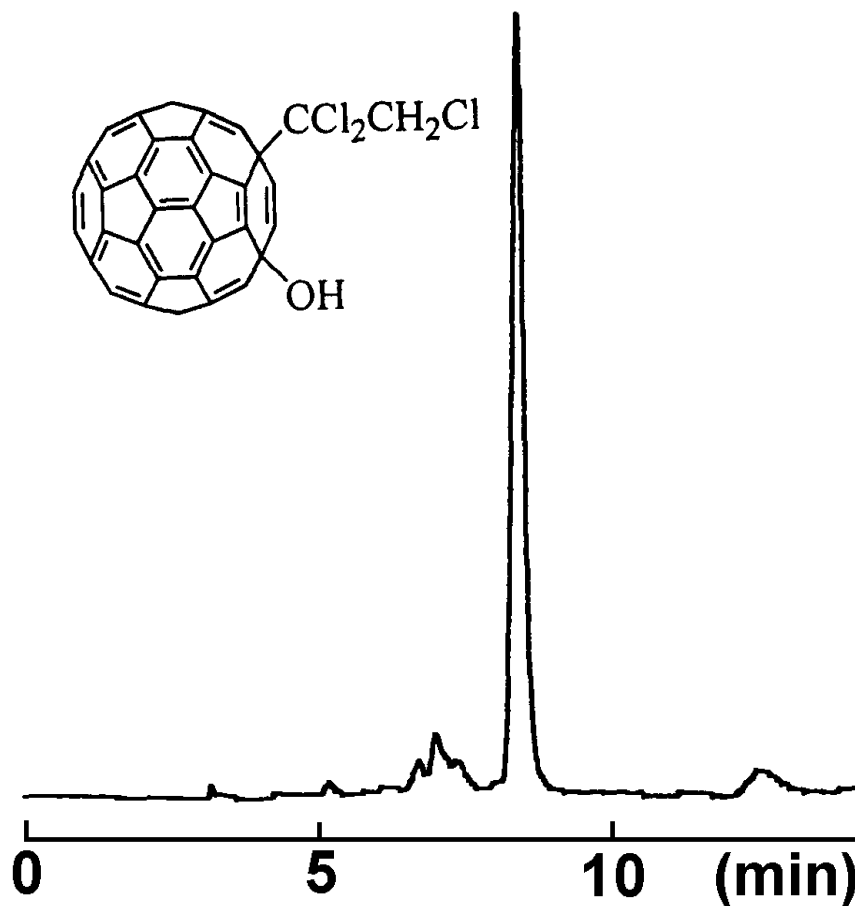
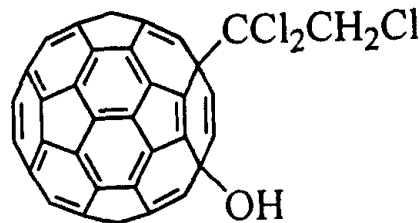
Sample: 1,4-C₆₀(CCl₂CH₂Cl)OCH₂CF₃
CAS No.: -
Molecular formula: C₆₄H₄Cl₃F₃O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

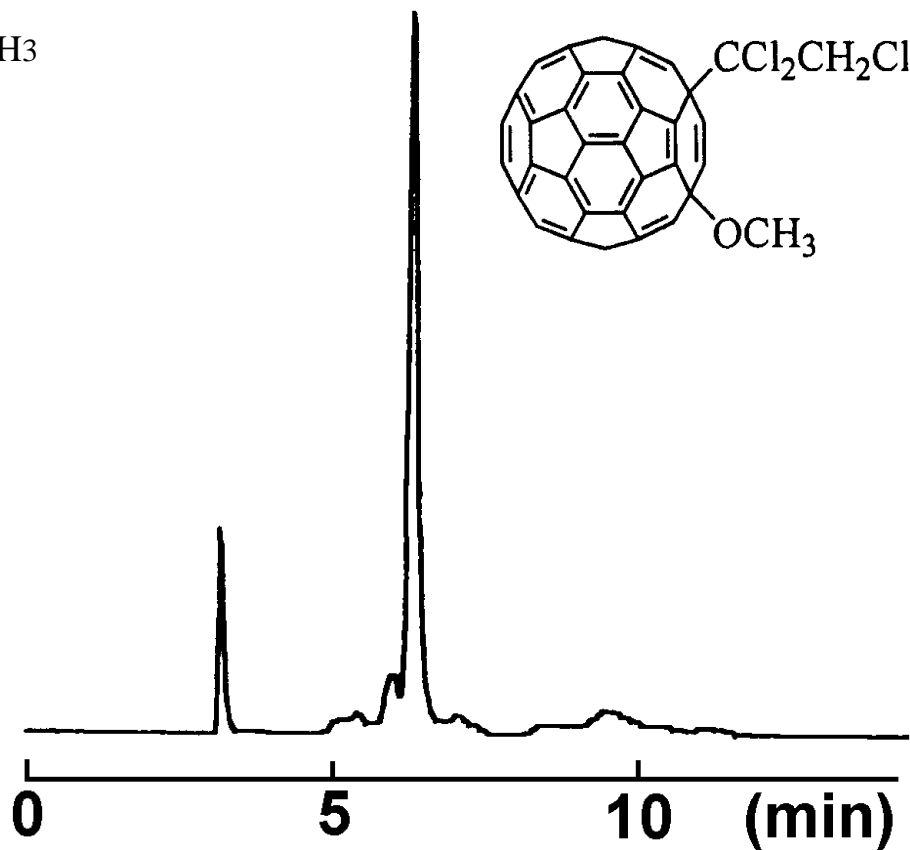
Sample: 1,4-C₆₀(CCl₂CH₂Cl)OH
CAS No.: -
Molecular formula: C₆₂H₃Cl₃O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

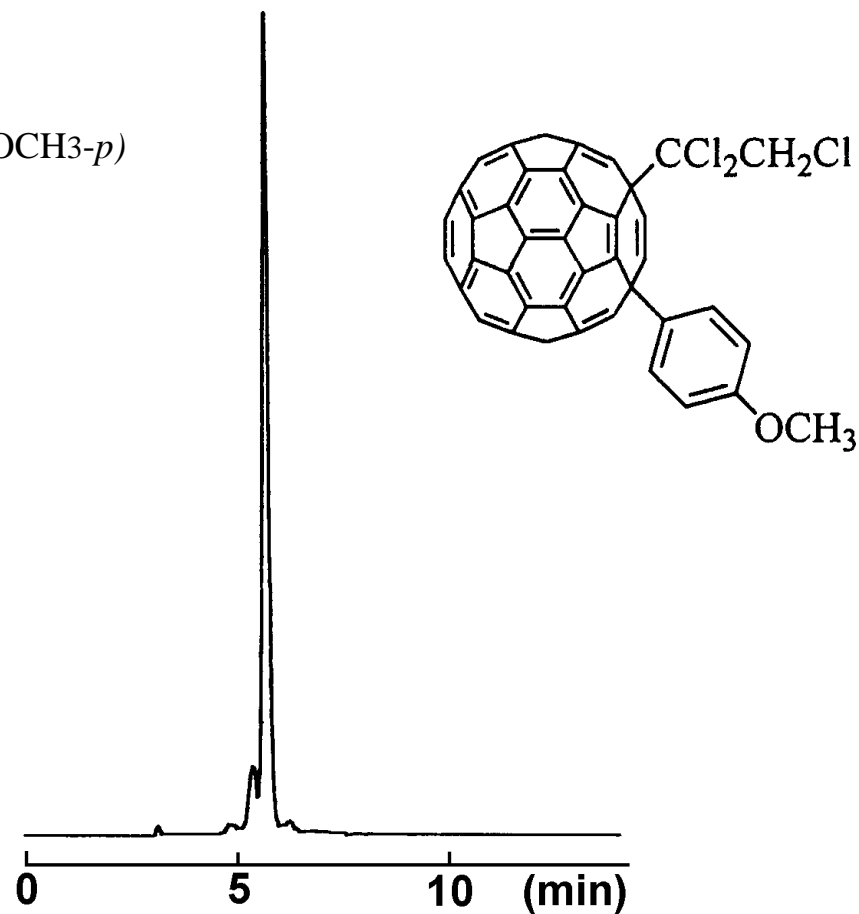
Sample: 1,4-C₆₀(CCl₂CH₂Cl)OCH₃
CAS No.: -
Molecular formula: C₆₃H₅Cl₃O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

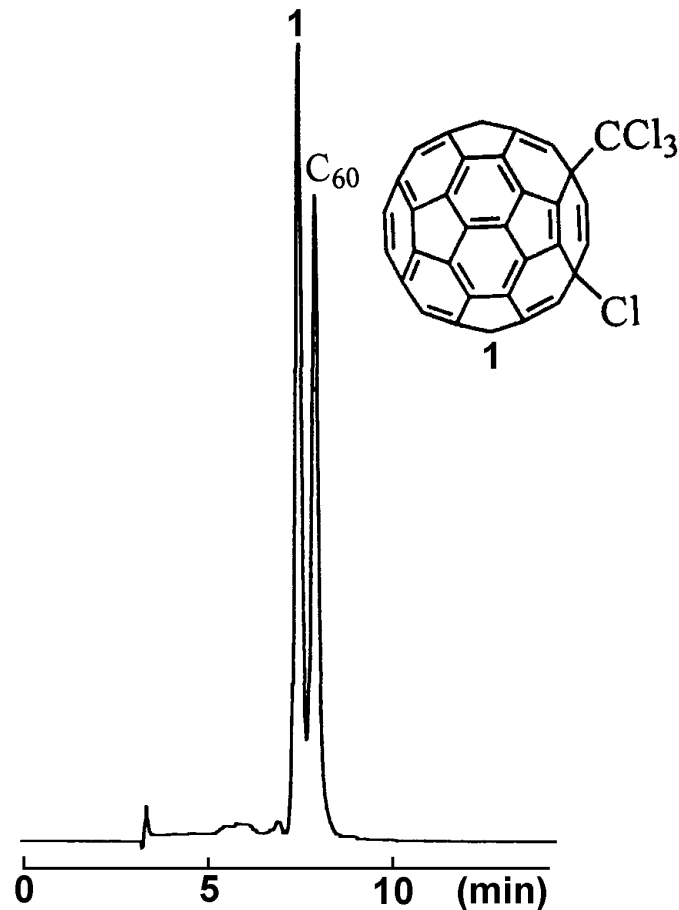
Sample: 1,4-C₆₀(CCl₂CH₂Cl)(C₆H₄OCH₃-*p*)
CAS No.: -
Molecular formula: C₆₉H₉Cl₃O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

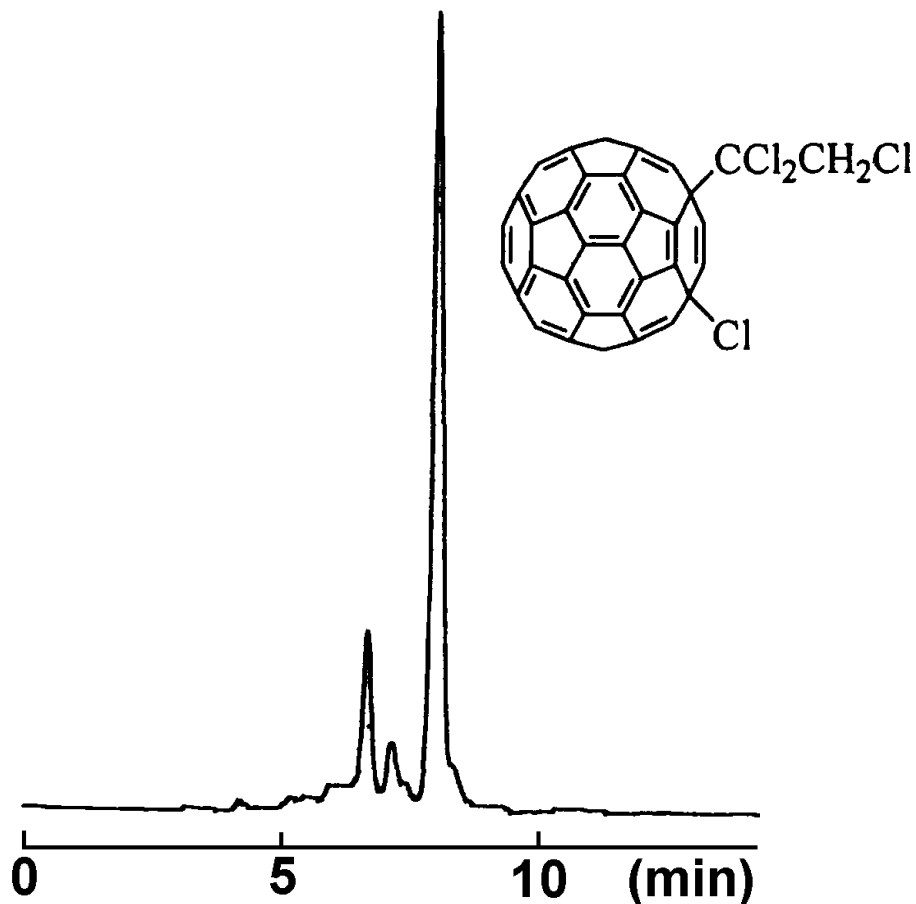
Sample: 1,4-C₆₀(CCl₃)Cl
CAS No.: -
Molecular formula: C₆₁Cl₄
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 µl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

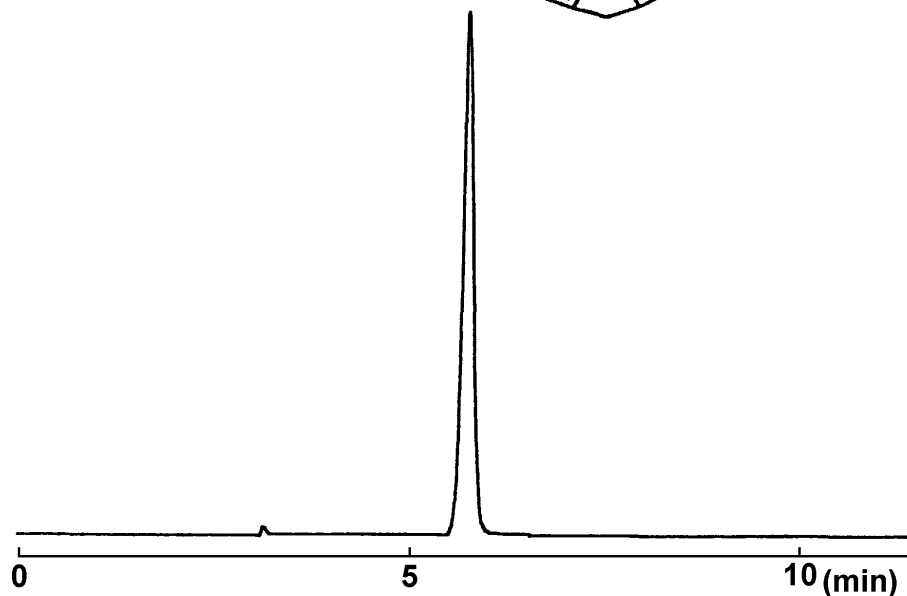
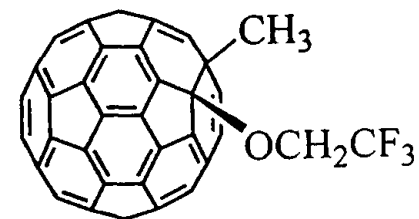
Sample: 1,4-C₆₀(CCl₂CH₂Cl)Cl
CAS No.: -
Molecular formula: C₆₂H₂Cl₄
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 µl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

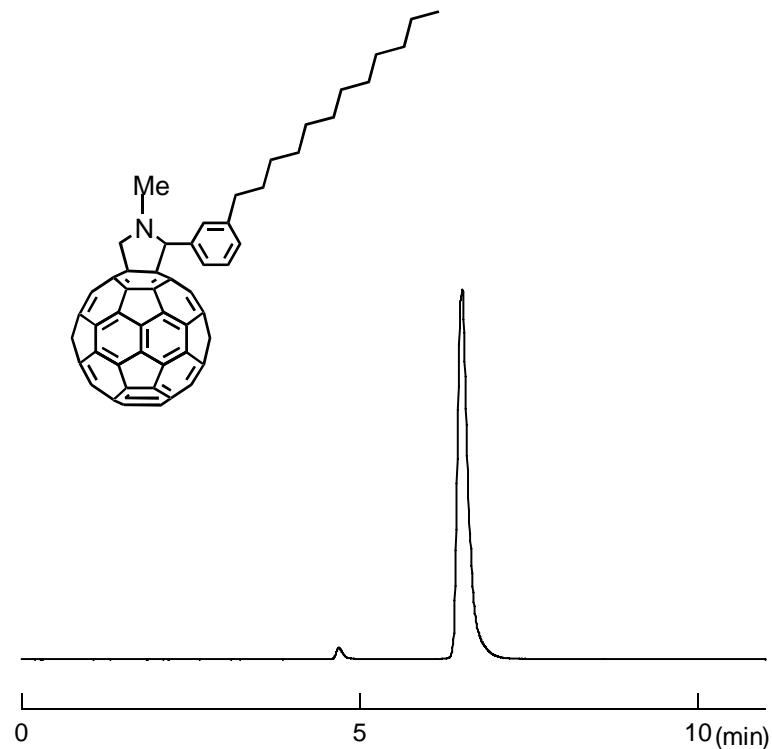
Sample: 1,2-C₆₀(CH₃)OCH₂CF₃
CAS No.: -
Molecular formula: C₆₃H₅F₃O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

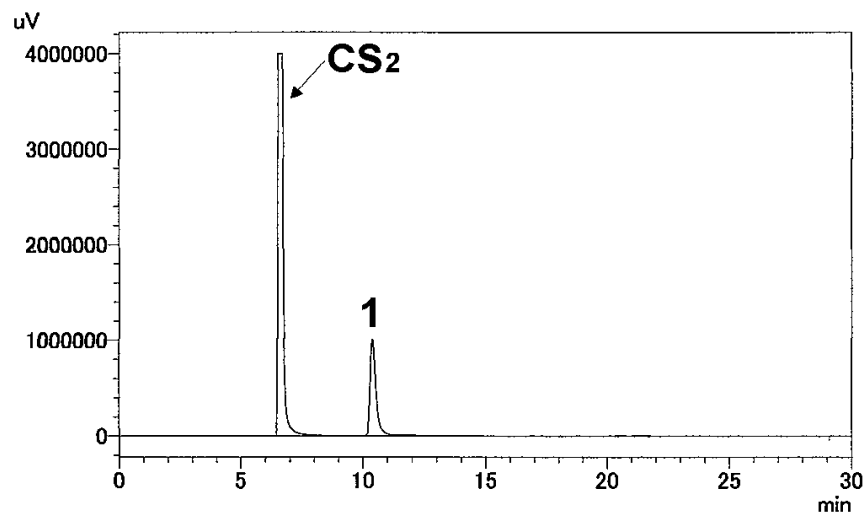
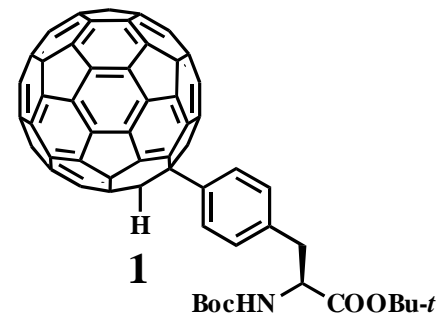
Sample: C60-fused *N*-methylpyrrolidine-
meta-C12 phenyl (C60MC12)
CAS No.: 220437-45-6
Molecular formula: C81H35N
Column: Buckyprep
Column size: 20 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 12 ml/min
Temperature: 16°C
Detection: UV 285 nm
Attenuation: -
Sample conc.: 1 mg/ml
Injection volume: 0.5 ml



Data courtesy of
Dr. Masayuki Chikamatsu (National Institute of Advanced
Industrial Science and Technology (AIST))

Fullerene Chromatogram Index

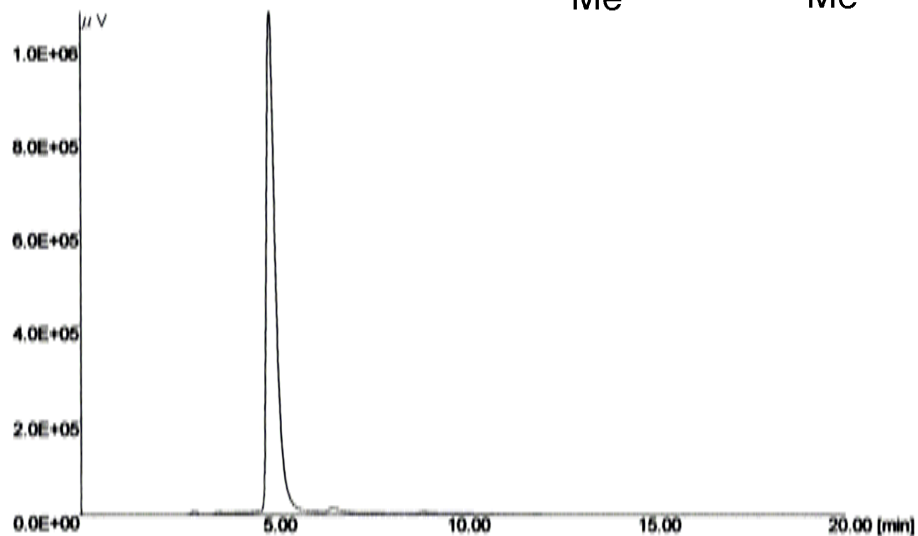
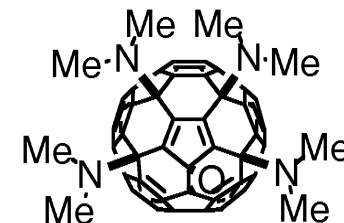
Sample: HC₆₀[(*N*-*tert*-butoxycarbonyl)-*L*-phenylalanine *tert*-butyl ester]
CAS No.: -
Molecular formula: C₇₈H₂₇NO₄
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 μl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(dimethylamino)-
6,12,15,18-(tetrahydro)oxireno
[2',3':1,9](C60-Ih)[5,6]fullerene
CAS No.: 312773-23-2
Molecular formula: C₆₈H₂₄N₄O
Column: 5C18-MS-II
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 30 : 70
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 290 nm
Attenuation: -
Sample conc.: -
Injection volume: 2 µl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(pyrrolidin-1-yl)-
6,12,15,18-(tetrahydro)oxireno
[2',3':1,9](C₆₀-Ih)[5,6]fullerene

CAS No.: 312773-21-0

Molecular formula: C₇₆H₃₂N₄O

Column: 5C18-MS-II

Column size: 4.6 mmI.D.-250 mm

Mobile phase: Toluene : IPA = 30 : 70

Flow rate: 1 ml/min

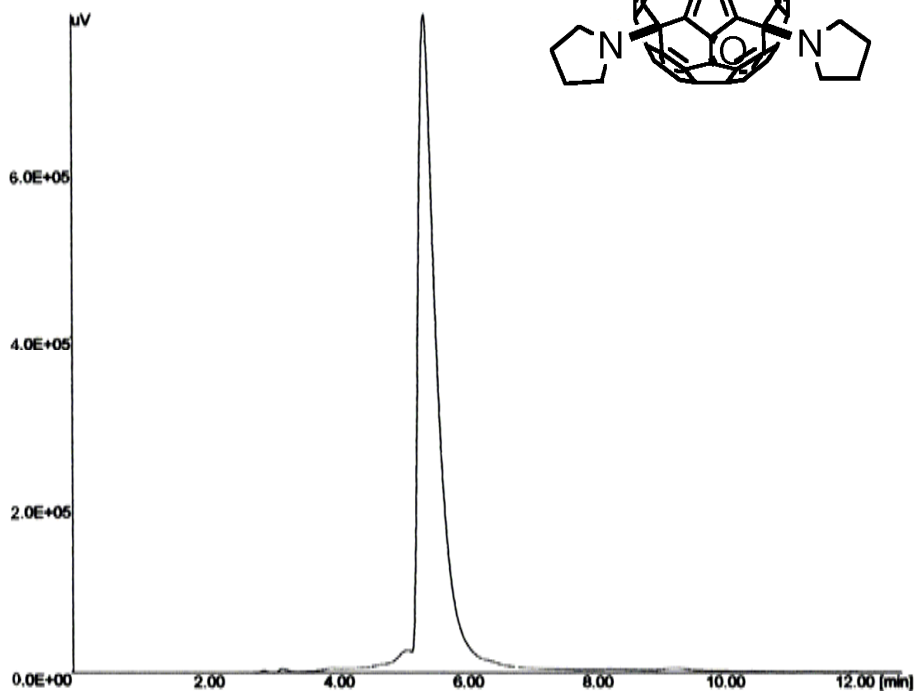
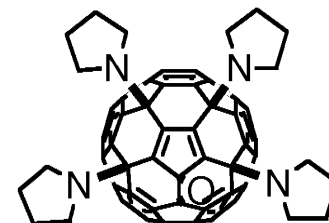
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

Injection volume: 2 μl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(piperidin-1-yl)-
6,12,15,18-(tetrahydro)oxireno
[2',3':1,9](C60-Ih)[5,6]fullerene

CAS No.: 169477-77-4

Molecular formula: C₈₀H₄₀N₄O

Column: 5C18-MS-II

Column size: 4.6 mmI.D.-250 mm

Mobile phase: Toluene : IPA = 30 : 70

Flow rate: 1 ml/min

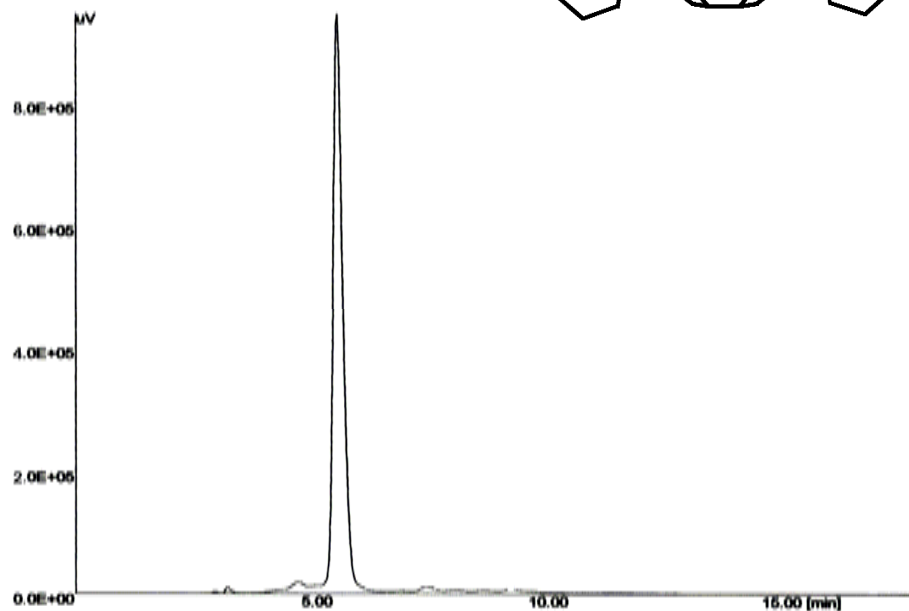
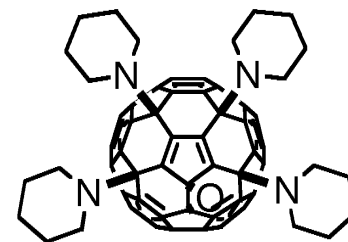
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

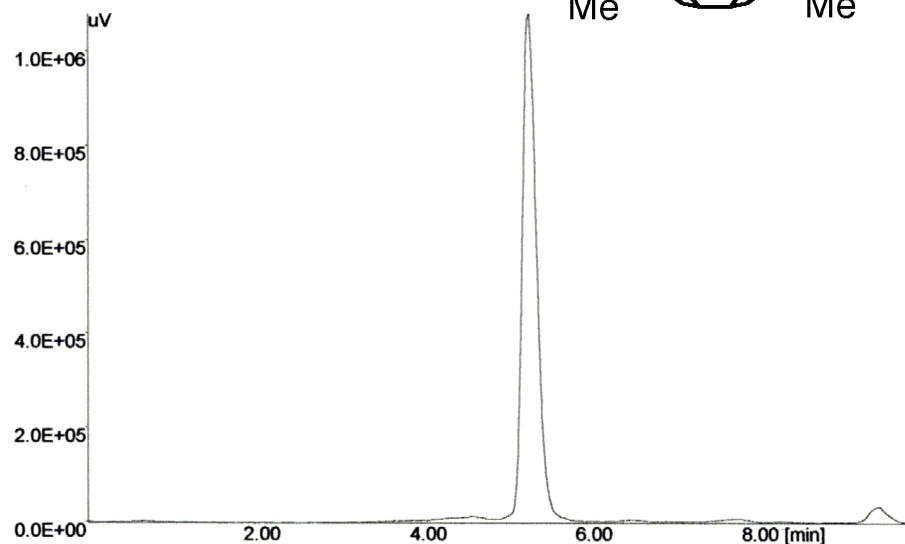
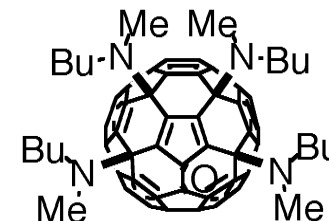
Injection volume: 2 µl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(2-azahexan-2-yl)-
6,12,15,18-(tetrahydro)oxireno
[2',3':1,9](C60-Ih)[5,6]fullerene
CAS No.: 312773-24-3
Molecular formula: C₈₀H₄₈N₄O
Column: 5C18-MS-II
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 30 : 70
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 290 nm
Attenuation: -
Sample conc.: -
Injection volume: 2 µl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(1-azacycloheptan-1-yl)-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C60-Ih)[5,6] fullerene

CAS No.: 854752-09-9

Molecular formula: C₈₄H₄₈N₄O

Column: 5C18-MS-II

Column size: 4.6 mm I.D.-250 mm

Mobile phase: Toluene : IPA = 30 : 70

Flow rate: 1 ml/min

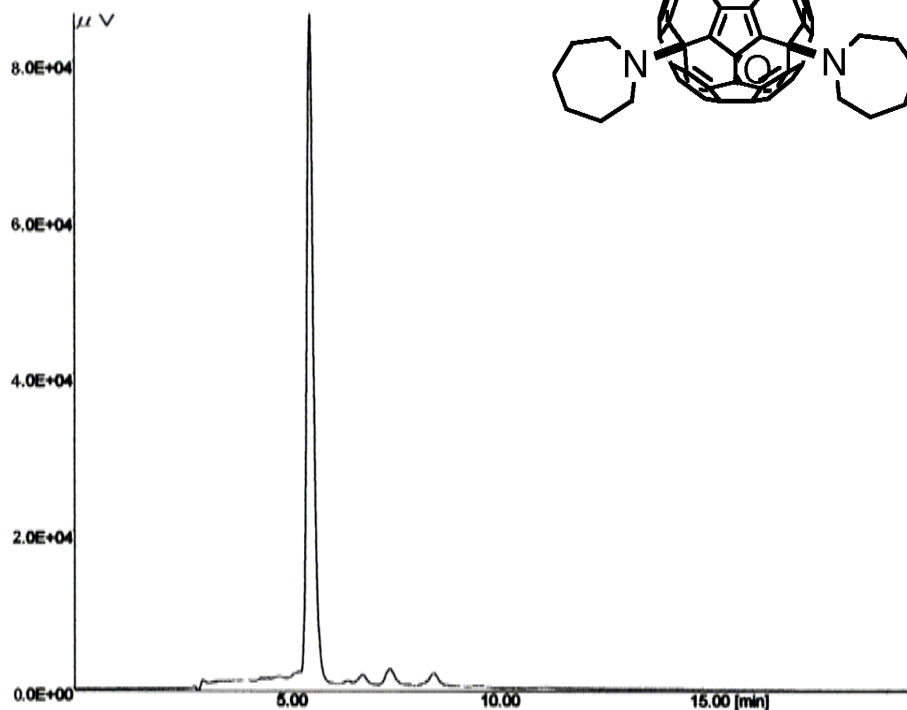
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

Injection volume: 2 μl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(morpholin-4-yl)-
6,12,15,18-(tetrahydro)oxireno
[2',3':1,9](C60-Ih)[5,6]fullerene

CAS No.: 169477-76-3

Molecular formula: C₇₆H₃₂N₄O₅

Column: 5C18-MS-II

Column size: 4.6 mmI.D.-250 mm

Mobile phase: Toluene : IPA = 30 : 70

Flow rate: 1 ml/min

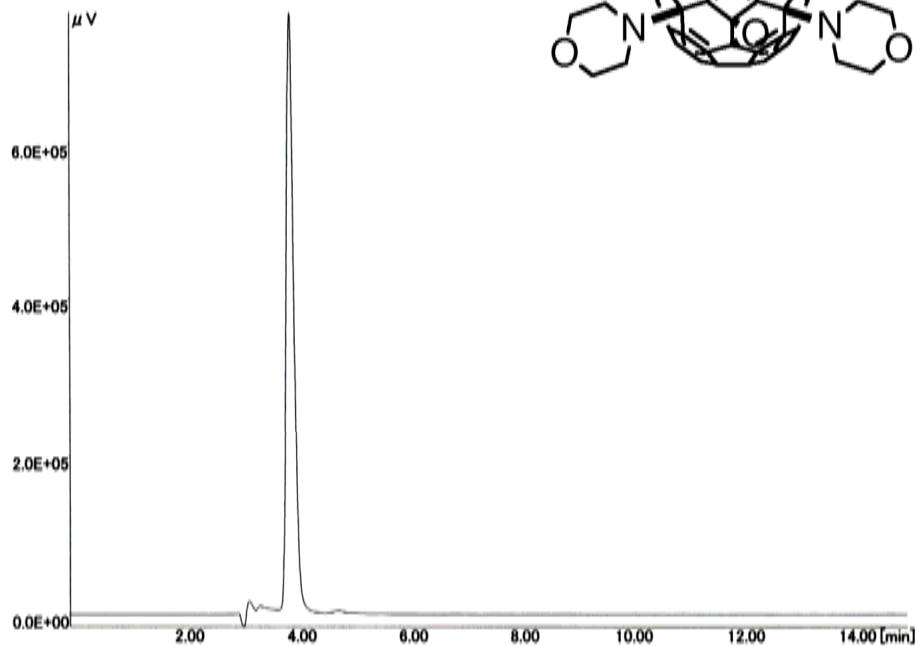
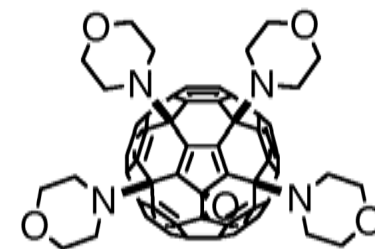
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

Injection volume: 2 μl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra[4-(hydroxymethyl)
piperidin-1-yl]-6,12,15,18-
(tetrahydro)oxireno[2',3':1,9]
(C₆₀-Ih)[5,6]fullerene

CAS No.: 854752-07-1

Molecular formula: C₈₄H₄₈N₄O₅

Column: 5C18-MS-II

Column size: 4.6 mm I.D.-250 mm

Mobile phase: Toluene : DMSO = 30 : 70

Flow rate: 0.5 ml/min

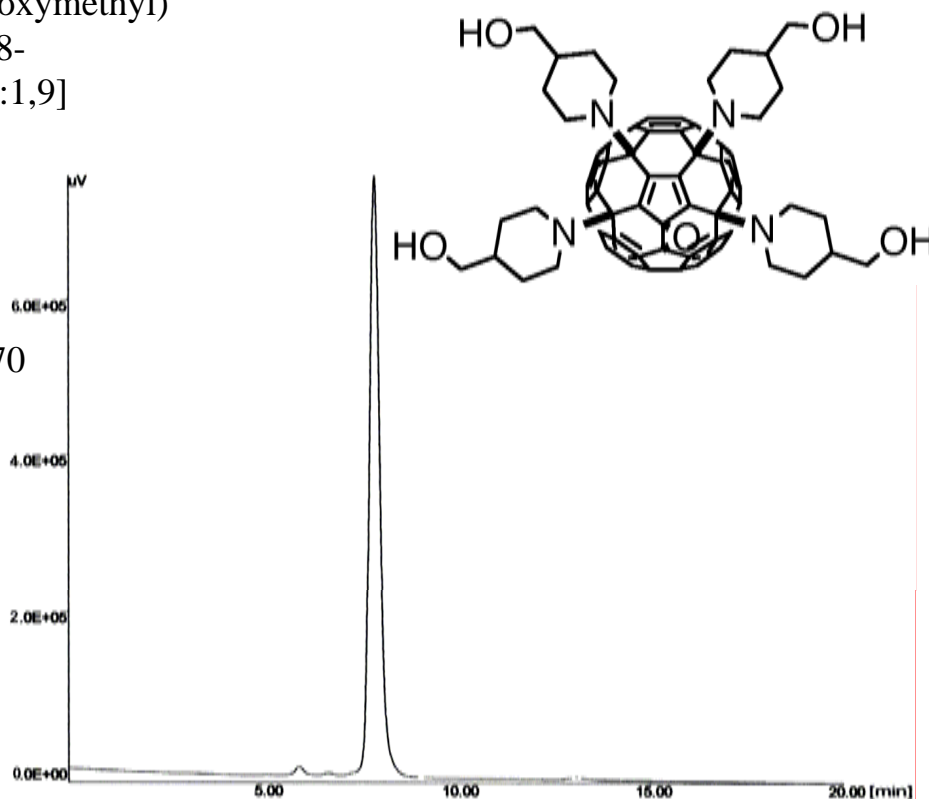
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

Injection volume: 2 µl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra[4-(2-hydroxyethyl)piperidin-1-yl]-6,12,15,18-(tetrahydro)oxireno [2',3':1,9](C₆₀-Ih)[5,6]fullerene

CAS No.: 854752-08-2

Molecular formula: C₈₈H₅₆N₄O₅

Column: 5C18-MS-II

Column size: 4.6 mm I.D.-250 mm

Mobile phase: Toluene : DMSO = 30 : 70

Flow rate: 0.5 ml/min

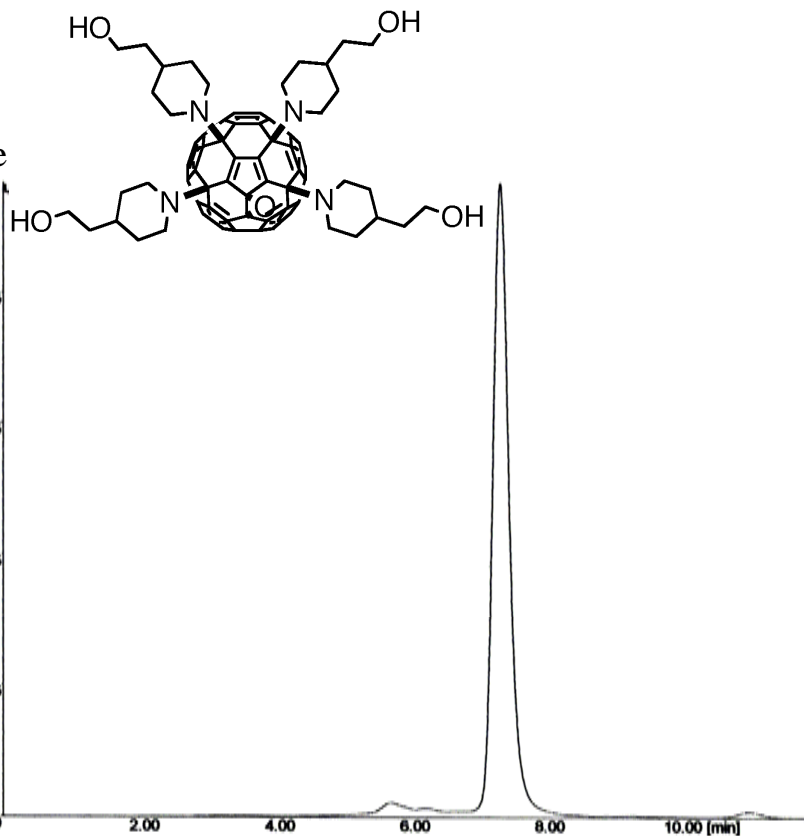
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

Injection volume: 2 µl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra(1,4-dioxa-8-azaspiro
[4,5]decan-8-yl)-6,12,15,18-
(tetrahydro)oxireno[2',3':1,9]
(C₆₀-Ih)[5,6]fullerene

CAS No.: 312773-20-9

Molecular formula: C₈₈H₄₈N₄O₉

Column: 5C18-MS-II

Column size: 4.6 mm I.D.-250 mm

Mobile phase: Toluene : IPA = 30 : 70

Flow rate: 1 ml/min

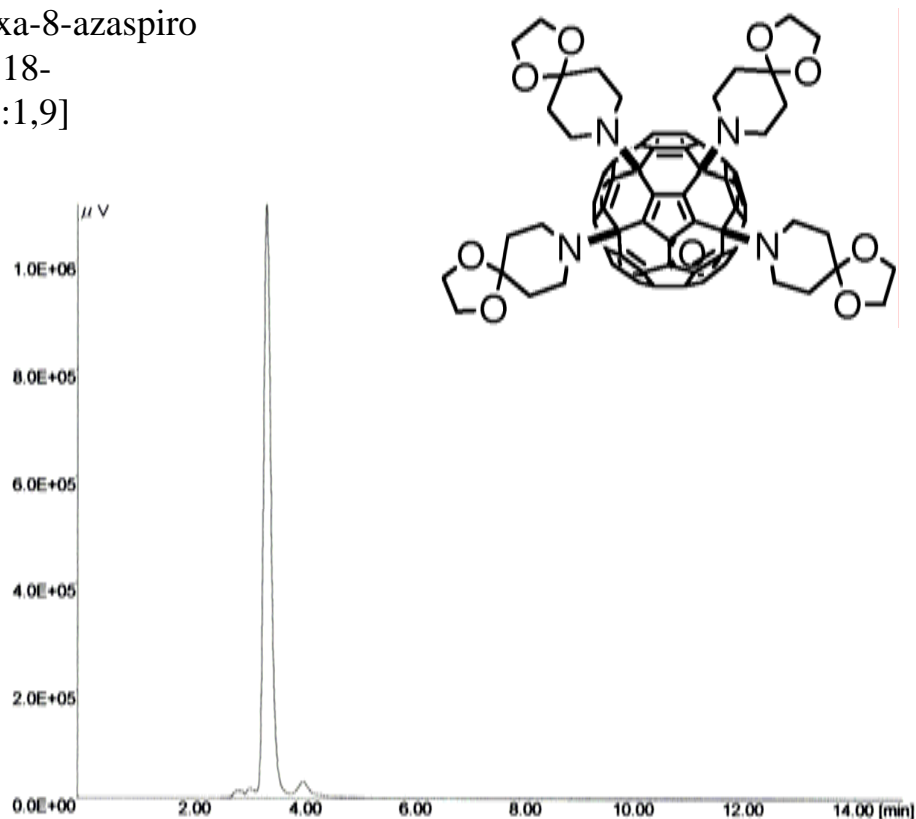
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

Injection volume: 2 μl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

Sample: 6,12,15,18-Tetra[4-(*tert*-butoxycarbonylamino)piperidin-1-yl]-6,12,15,18-(tetrahydro)oxireno[2',3':1,9](C₆₀-Ih)[5,6]fullerene

CAS No.: 854752-06-0

Molecular formula: C₁₀₀H₇₆N₈O₉

Column: 5C18-MS-II

Column size: 4.6 mm I.D.-250 mm

Mobile phase: Toluene : IPA = 30 : 70

Flow rate: 1 ml/min

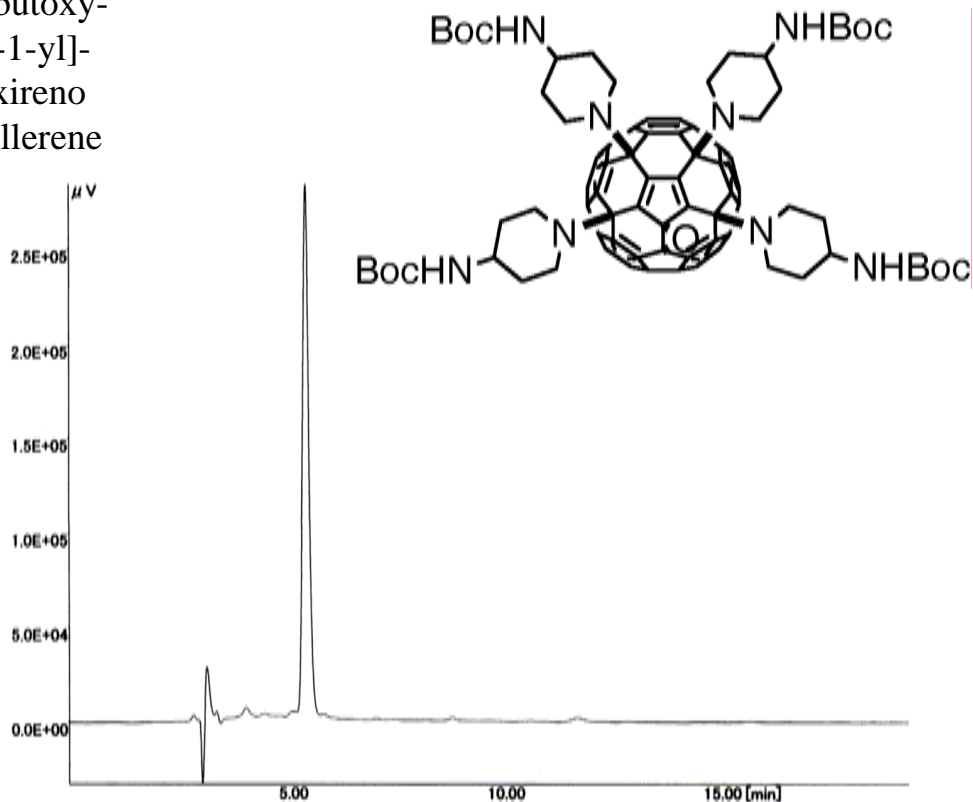
Temperature: 40°C

Detection: UV 290 nm

Attenuation: -

Sample conc.: -

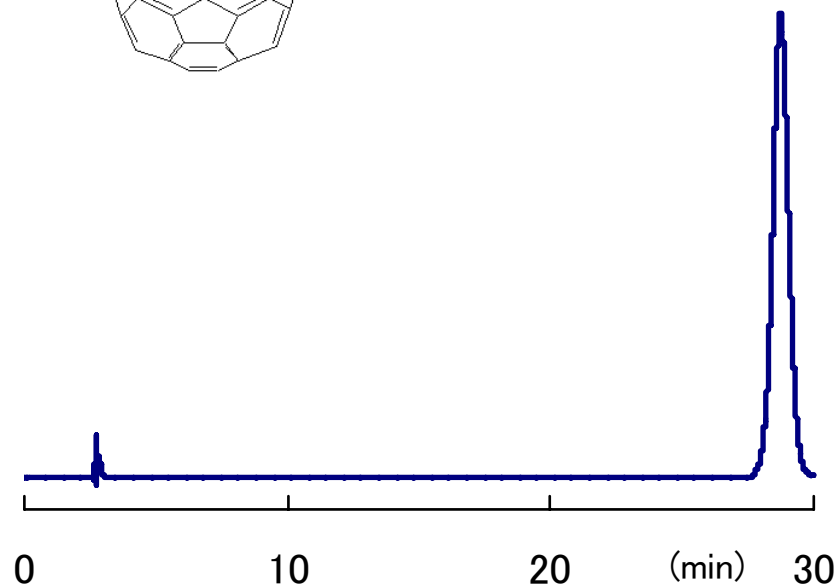
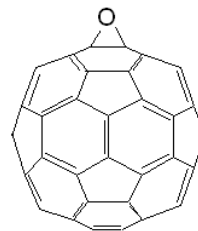
Injection volume: 2 μl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

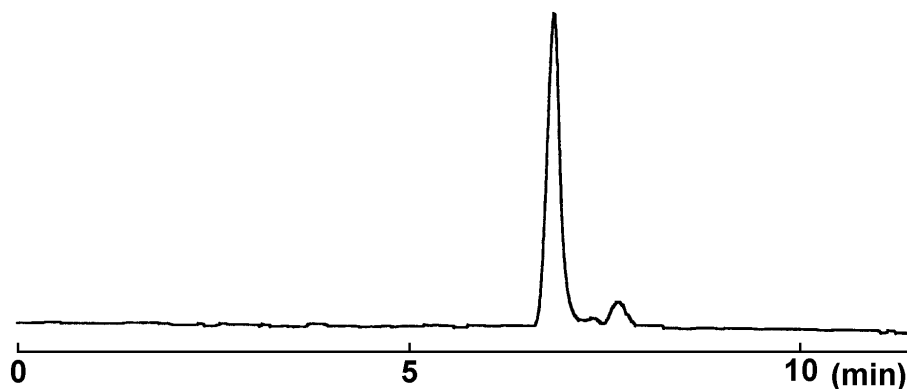
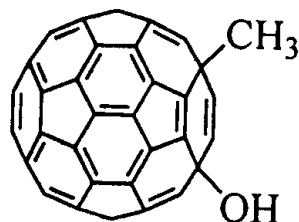
Sample: C60O
CAS No.: -
Molecular formula: C60O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : Acetonitrile = 66 : 34
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV 304 nm
Attenuation: 203 mAU
Sample conc.: 1.44 mg/ml
Injection volume: 5 µl



Data courtesy of
Yusuke Tajima, Dr. Sci. (Nano-Integration Materials Research Unit
RIKEN (Institute of Physics and Chemistry)),
2-1 Hirosawa, Wako, Saitama 351-0198, Japan

Fullerene Chromatogram Index

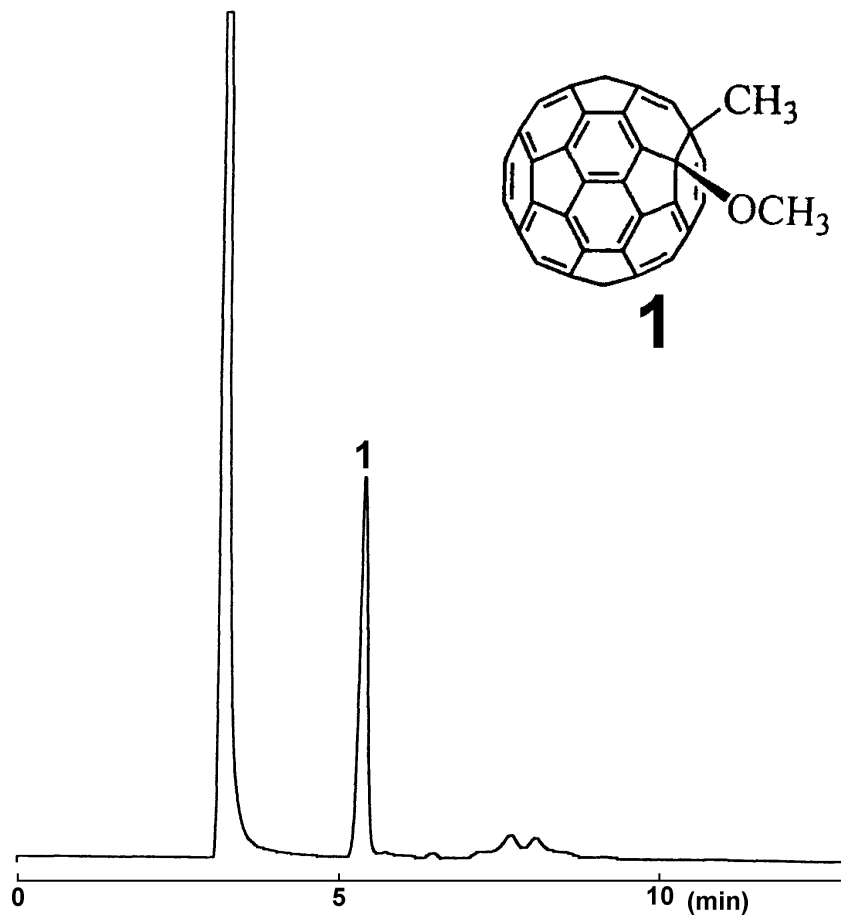
Sample: 1,4-C₆₀(CH₃)OH
CAS No.: -
Molecular formula: C₆₁H₄O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

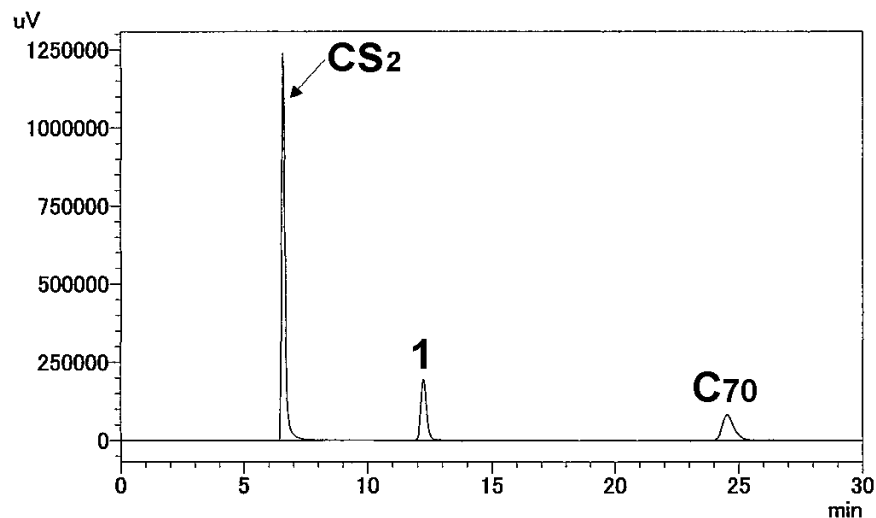
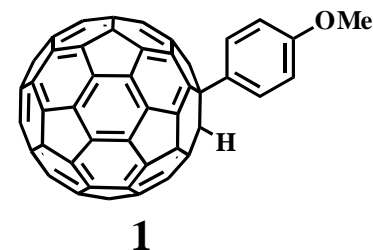
Sample: 1,2-C₆₀(CH₃)OCH₃
CAS No.: -
Molecular formula: C₆₂H₆O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

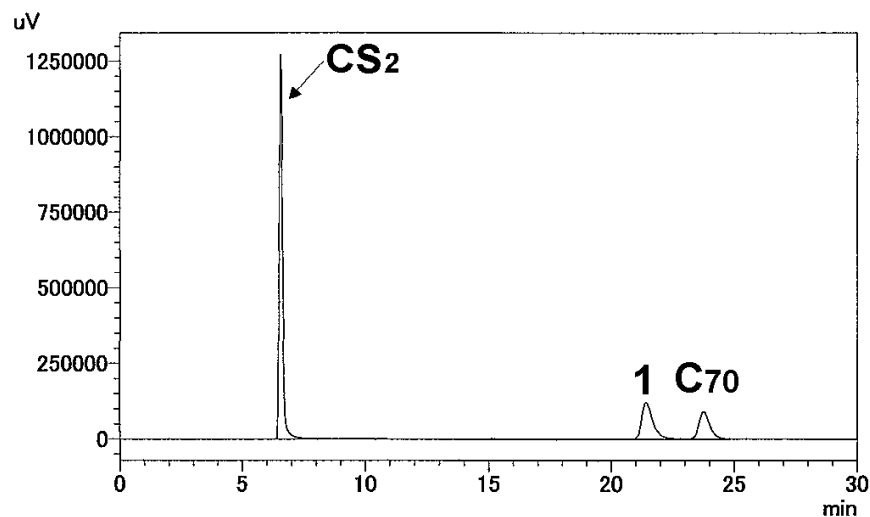
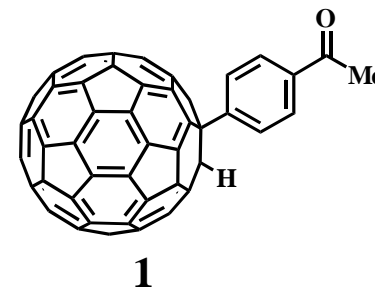
Sample: 1-(4-Methoxyphenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₇H₈O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

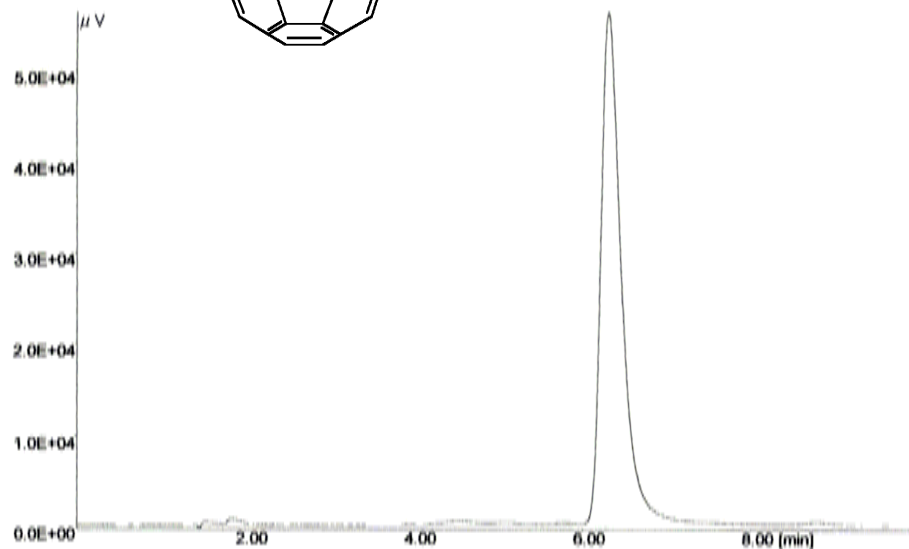
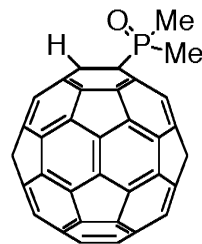
Sample: 1-(4-Acetylphenyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₈H₈O
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

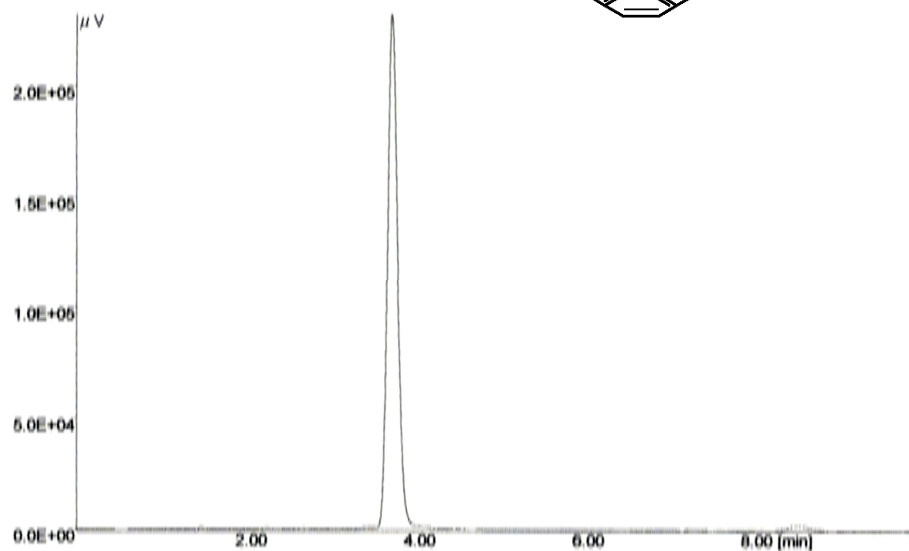
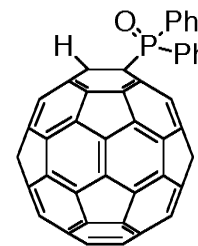
Sample: HC60P(O)Me₂
CAS No.: -
Molecular formula: C₆₂H₇OP
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

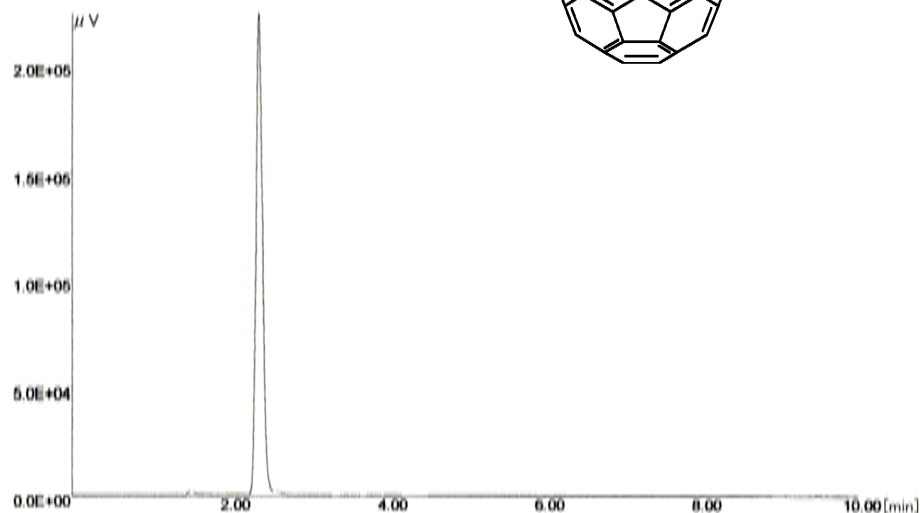
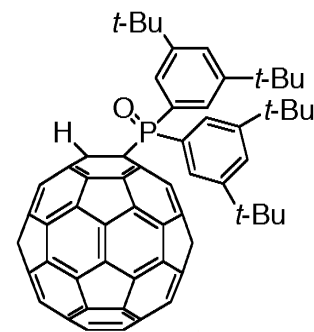
Sample: HC60P(O)Ph₂
CAS No.: -
Molecular formula: C₇₂H₁₁OP
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

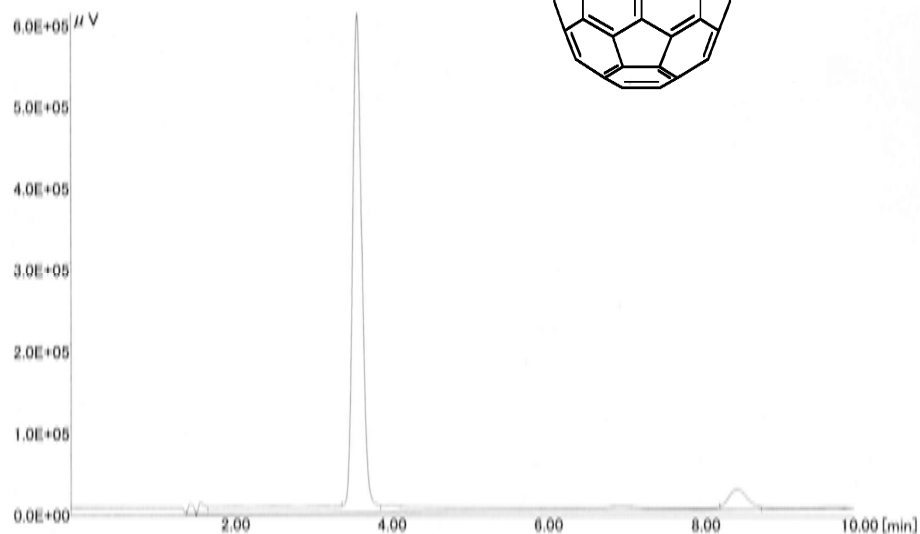
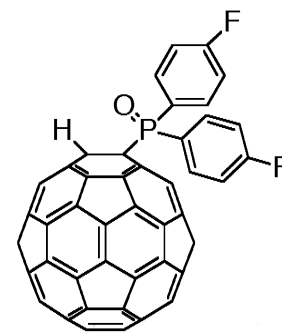
Sample: HC60P(O)(di-*t*-Bu-C₆H₃)₂
CAS No.: -
Molecular formula: C₈₈H₄₃OP
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

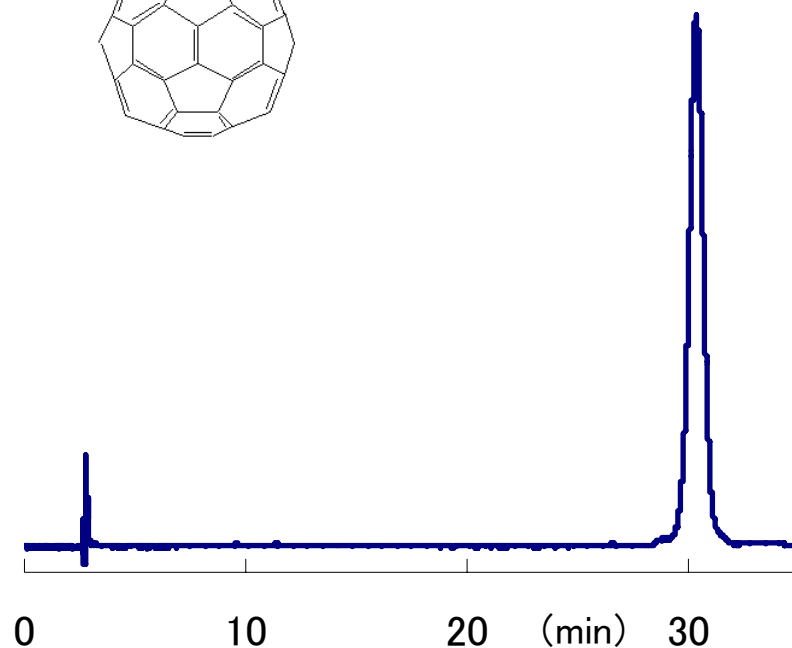
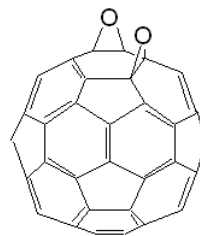
Sample: HC60P(O)(*p*-C₆H₄F)₂
CAS No.: -
Molecular formula: C₇₂H₉OPF₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

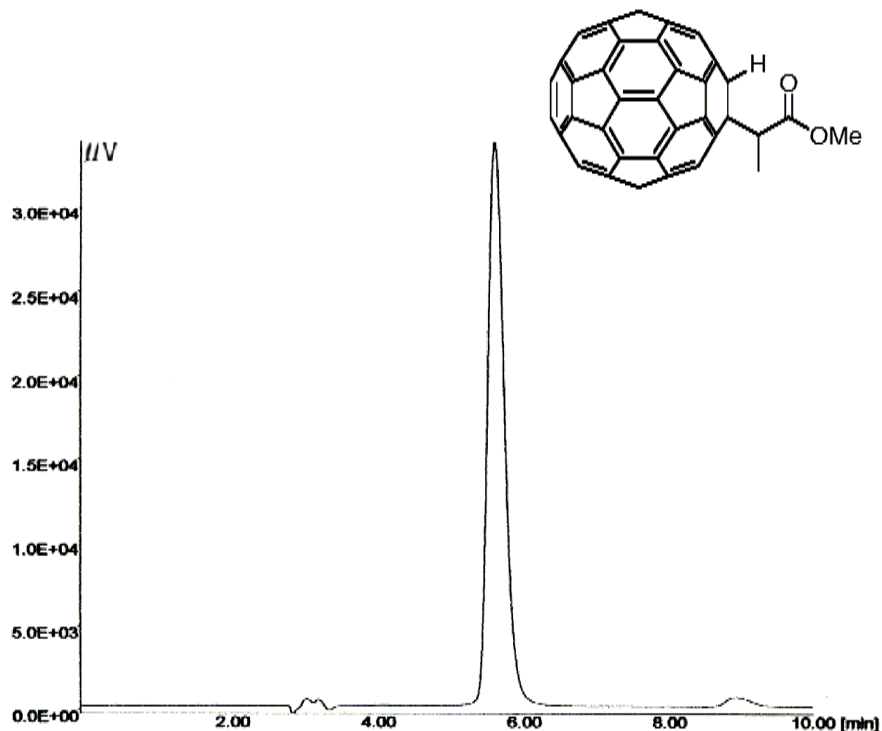
Sample: C60O2(*cis*-1)
CAS No.: -
Molecular formula: C60O2
Column: Buckyprep
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : Acetonitrile = 66 : 34
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV 304 nm
Attenuation: 107 mAU
Sample conc.: 0.74 mg/ml
Injection volume: 5 µl



Data courtesy of
Yusuke Tajima, Dr. Sci. (Nano-Integration Materials Research Unit
RIKEN (Institute of Physics and Chemistry)),
2-1 Hirosawa, Wako, Saitama 351-0198, Japan

Fullerene Chromatogram Index

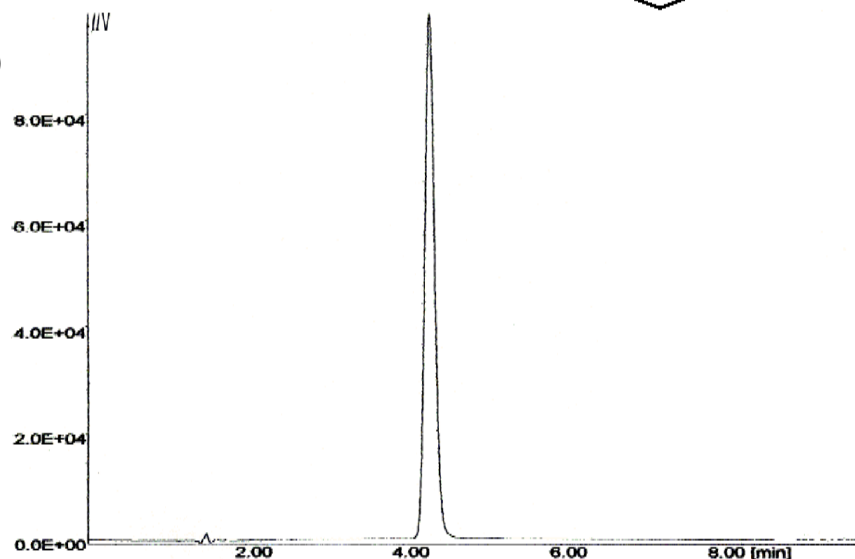
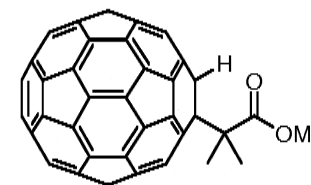
Sample: HC60CH(Me)COOMe
CAS No.: -
Molecular formula: C₆₄H₈O₂
Column: 5C18-MS-II
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 30 : 70
Flow rate: 1 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

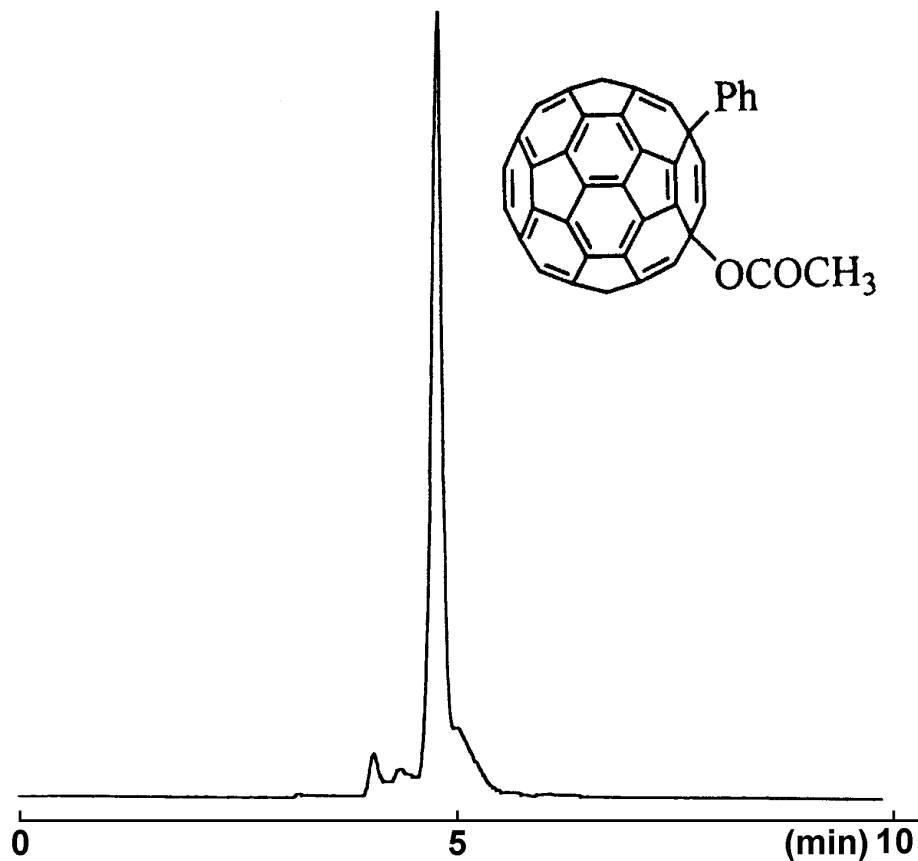
Sample: HC60C(Me₂)COOMe
CAS No.: -
Molecular formula: C₆₅H₁₀O₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 3 μl



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

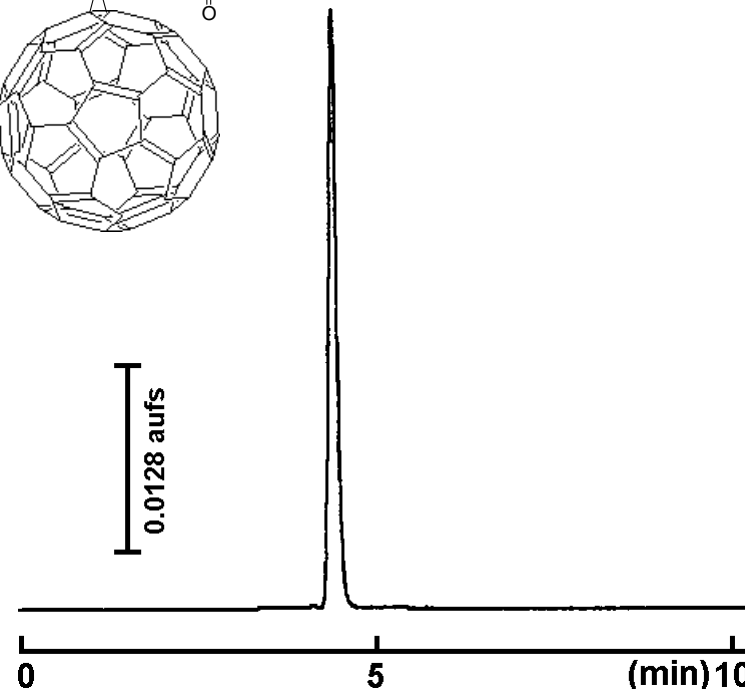
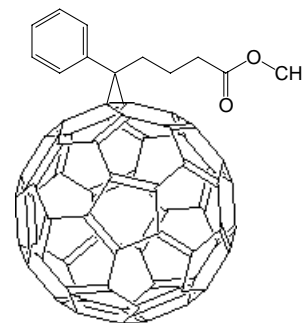
Sample: 1,4-C₆₀(OCOCH₃)Ph
CAS No.: -
Molecular formula: C₆₈H₈O₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1 ml/min
Temperature: 30°C
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 1.0 μl (in toluene)



Data courtesy of
Prof. Toshikazu Kitagawa
(Graduate School of Engineering, Mie University)

Fullerene Chromatogram Index

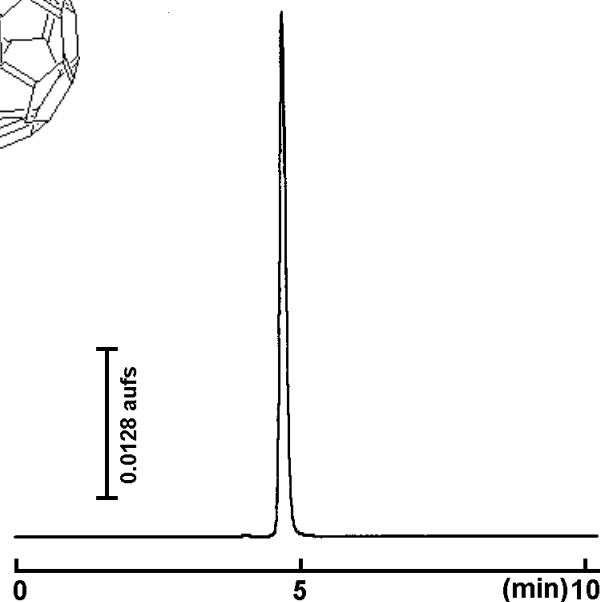
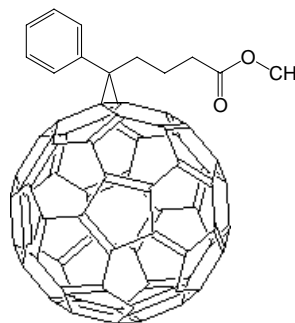
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Methyl Ester
CAS No.: 160848-21-5
Molecular formula: C₇₂H₁₄O₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

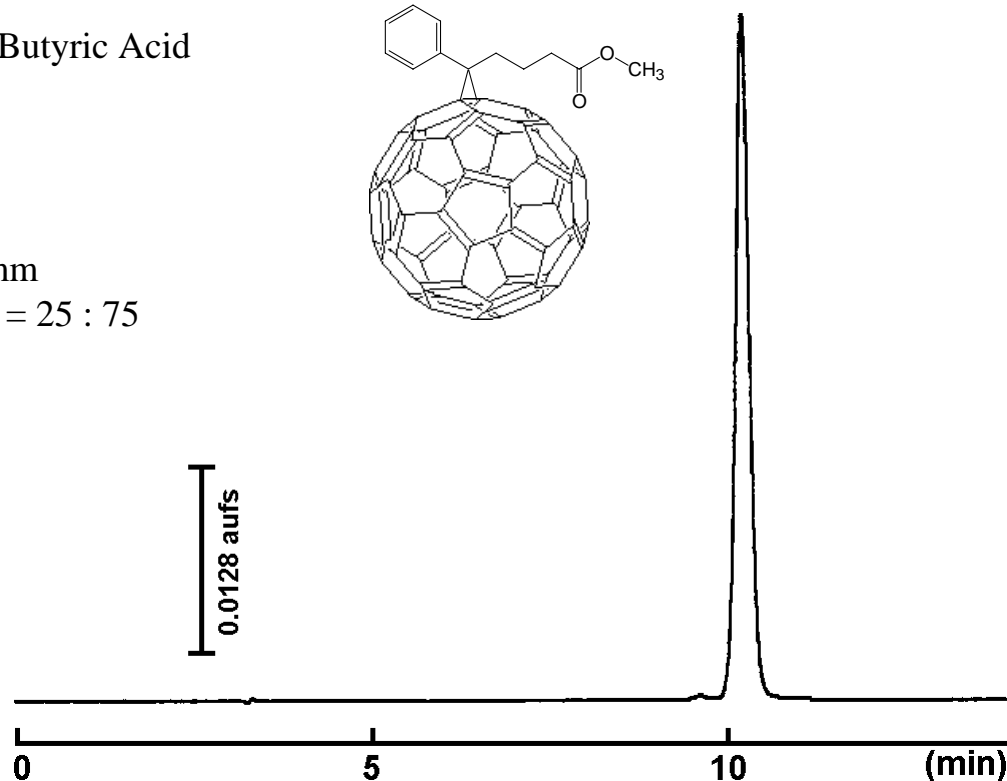
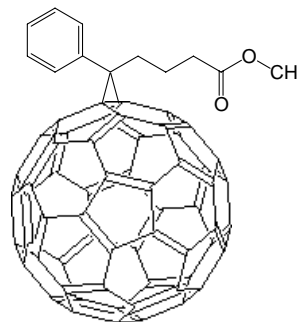
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Methyl Ester
CAS No.: 160848-21-5
Molecular formula: C₇₂H₁₄O₂
Column: Buckyprep-M
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

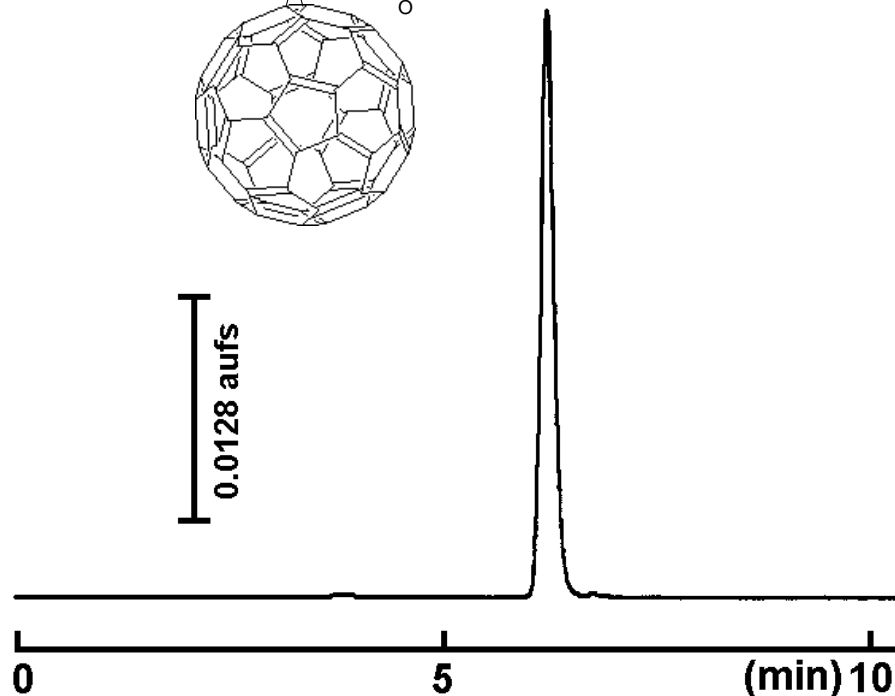
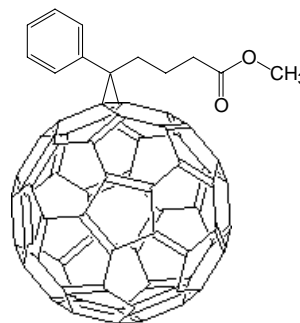
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Methyl Ester
CAS No.: 160848-21-5
Molecular formula: C₇₂H₁₄O₂
Column: NPE
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : Hexane = 25 : 75
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 1.0 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Methyl Ester
CAS No.: 160848-21-5
Molecular formula: C₇₂H₁₄O₂
Column: PBB
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

Sample: [6,5]-open fulleroid
[1,2 (2a)-Homo [5,6]fullerene-C₆₀-Ih,
2a,2a-bis (4-methoxyphenyl)-(9CI)]

CAS No.: 157177-69-0

Molecular formula: C₇₅H₁₄O₂

Column: Buckyprep

Column size: 4.6 mmI.D.-250 mm

Mobile phase: Toluene

Flow rate: 1.0 ml/min

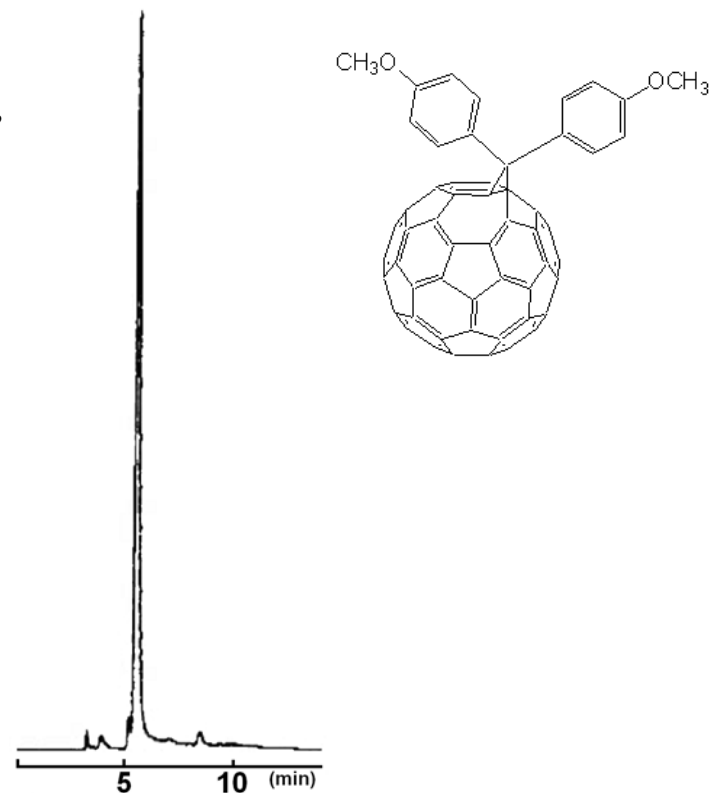
Temperature: 30°C

Detection: UV 310 nm

Attenuation: -

Sample conc.: 2.8 mg/ml

Injection volume: 1 µl



Data courtesy of
Dr. Ken Kokubo and Prof. Takumi Oshima
(Graduate School of Engineering, Osaka University)
Ref: T. Oshima and K. Kokubo *et al.*, *J. Org. Chem.*, **2006**, *71*, 2995-3000.

Fullerene Chromatogram Index

Sample: [6,6]-closed methanofullerene
[3'H-Cyclopropa [1,9][5,6]fullerene-C60-
Ih,3',3'-bis (4-methoxyphenyl)-(9CI)]

CAS No.: 160558-58-7

Molecular formula: C₇₅H₁₄O₂

Column: Buckyprep

Column size: 4.6 mmI.D.-250 mm

Mobile phase: Toluene

Flow rate: 1.0 ml/min

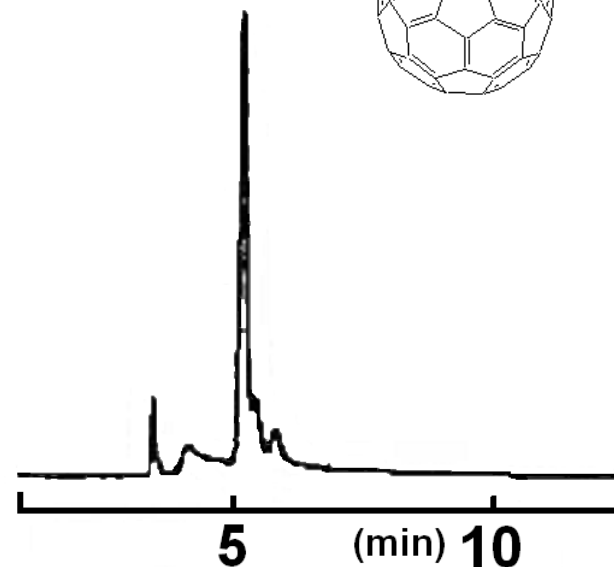
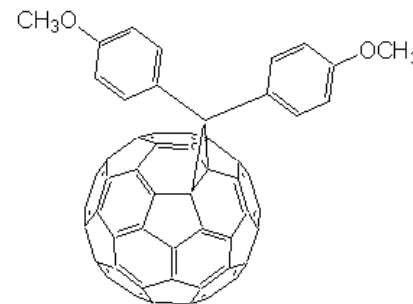
Temperature: 30°C

Detection: UV 310 nm

Attenuation: -

Sample conc.: 1.8 mg/ml

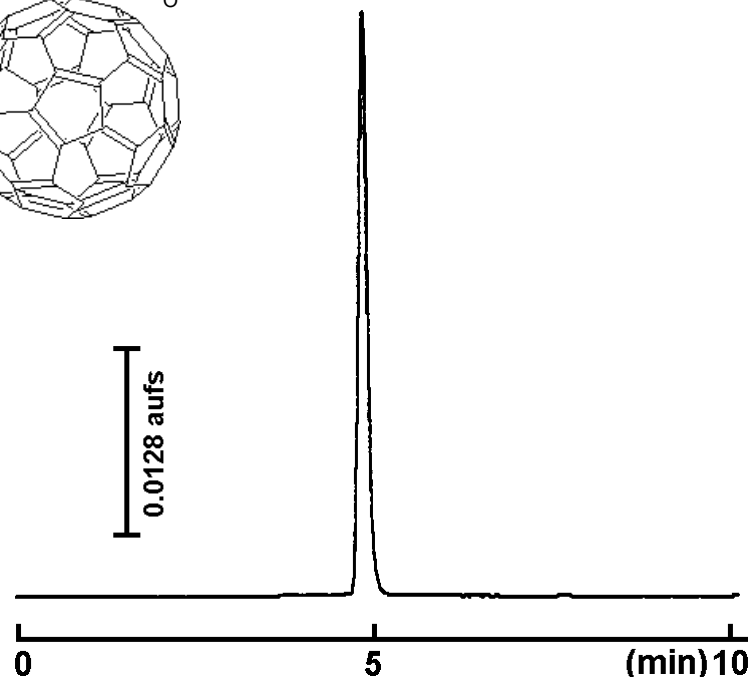
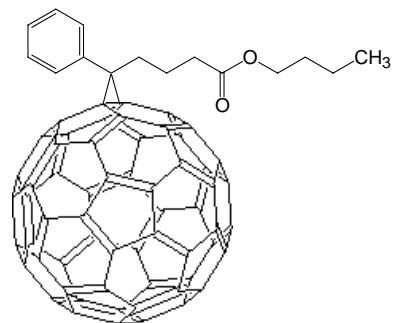
Injection volume: 1 µl



Data courtesy of
Dr. Ken Kokubo and Prof. Takumi Oshima
(Graduate School of Engineering, Osaka University)
Ref: T. Oshima and K. Kokubo *et al.*, *J. Org. Chem.*, **2006**, *71*, 2995-3000.

Fullerene Chromatogram Index

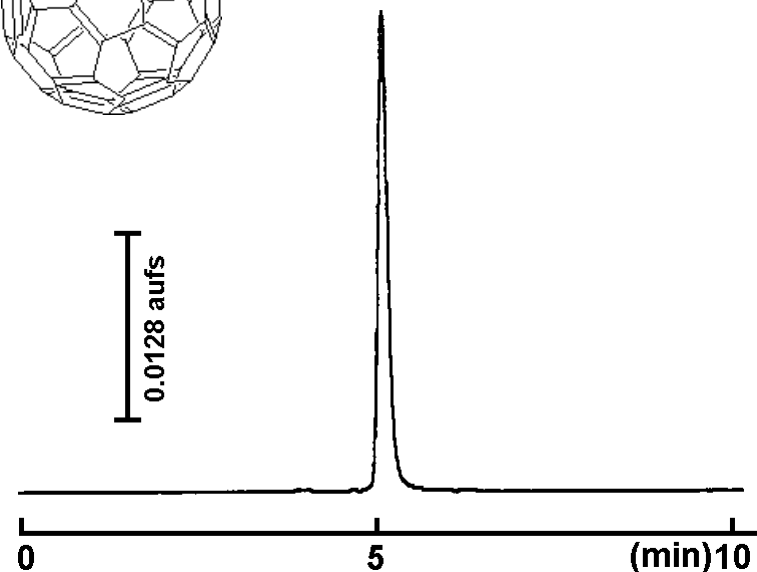
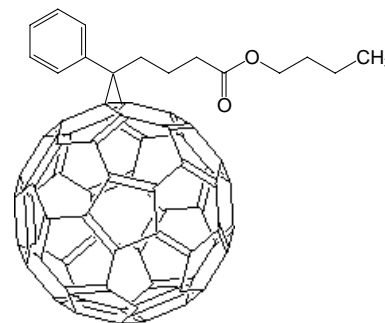
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Butyl Ester
CAS No.: 571177-66-7
Molecular formula: C₇₅H₂₀O₂
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

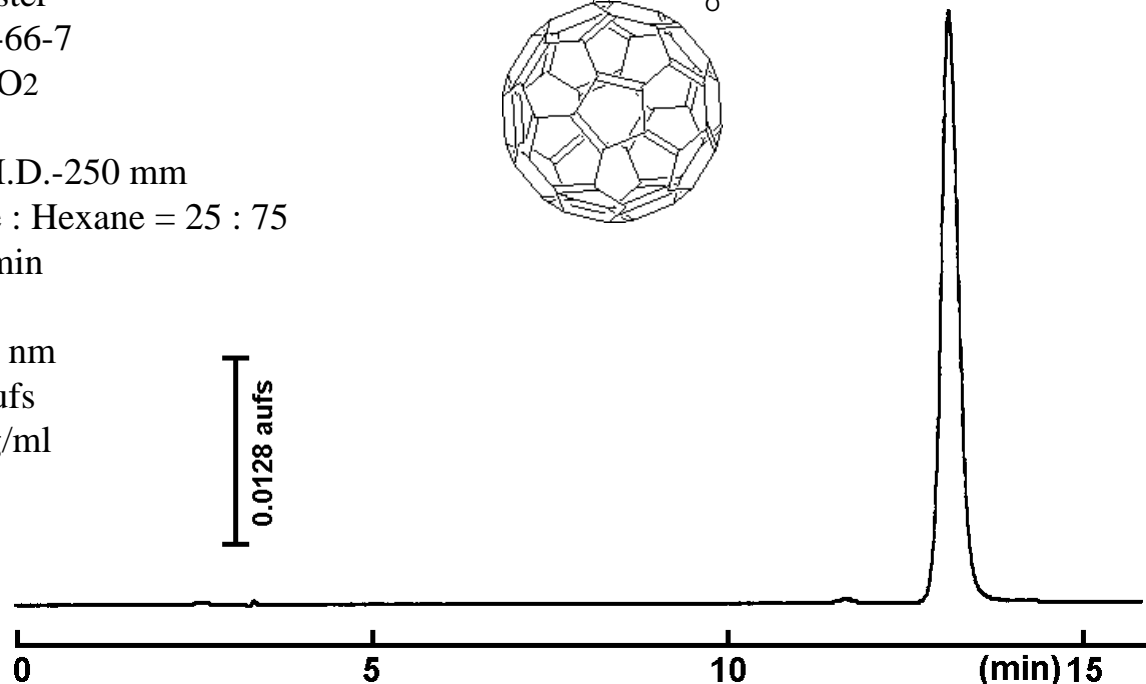
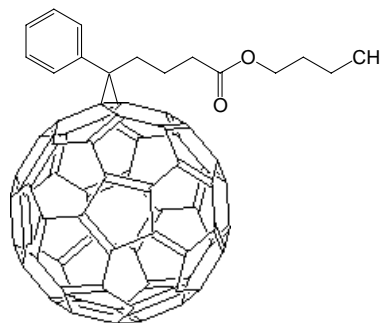
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Butyl Ester
CAS No.: 571177-66-7
Molecular formula: C₇₅H₂₀O₂
Column: Buckyprep-M
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

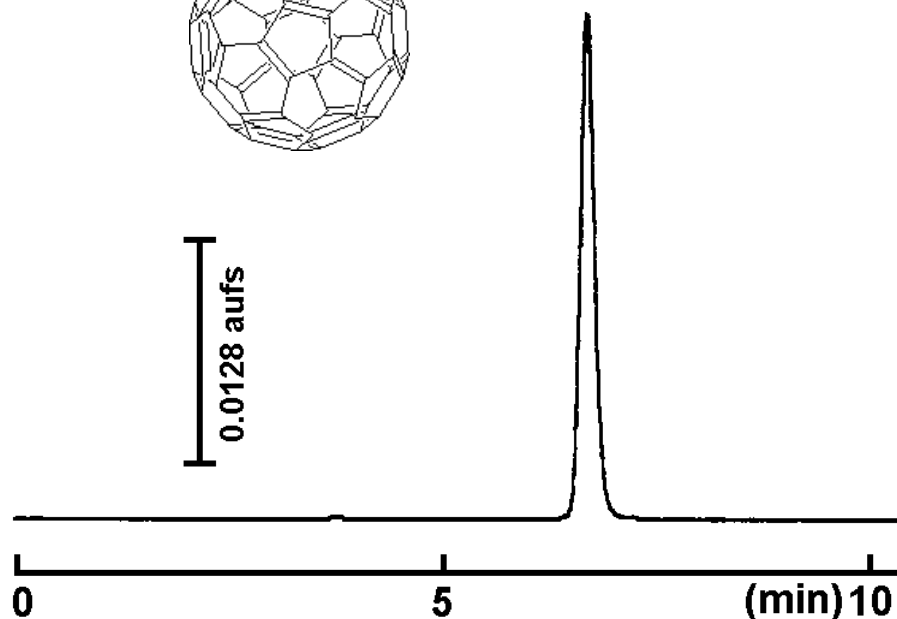
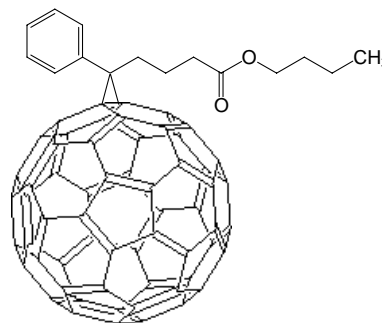
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Butyl Ester
CAS No.: 571177-66-7
Molecular formula: C₇₅H₂₀O₂
Column: NPE
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : Hexane = 25 : 75
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 1.0 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

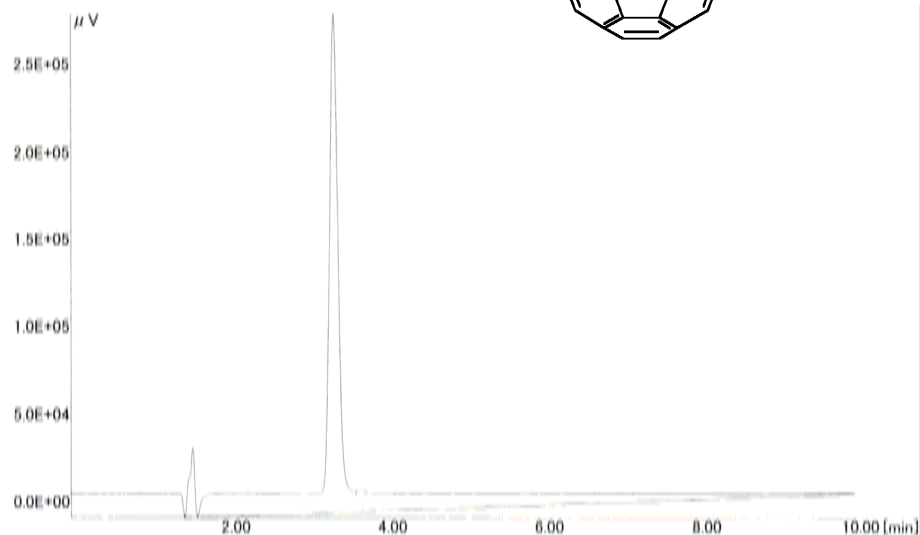
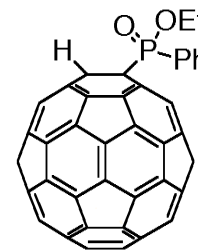
Sample: [6,6]-Phenyl-C₆₁ Butyric Acid
Butyl Ester
CAS No.: 571177-66-7
Molecular formula: C₇₅H₂₀O₂
Column: PBB
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV 325 nm
Attenuation: 0.128 aufs
Sample conc.: 0.25 mg/ml
Injection volume: 0.5 µl



Data courtesy of
NACALAI TESQUE, INC

Fullerene Chromatogram Index

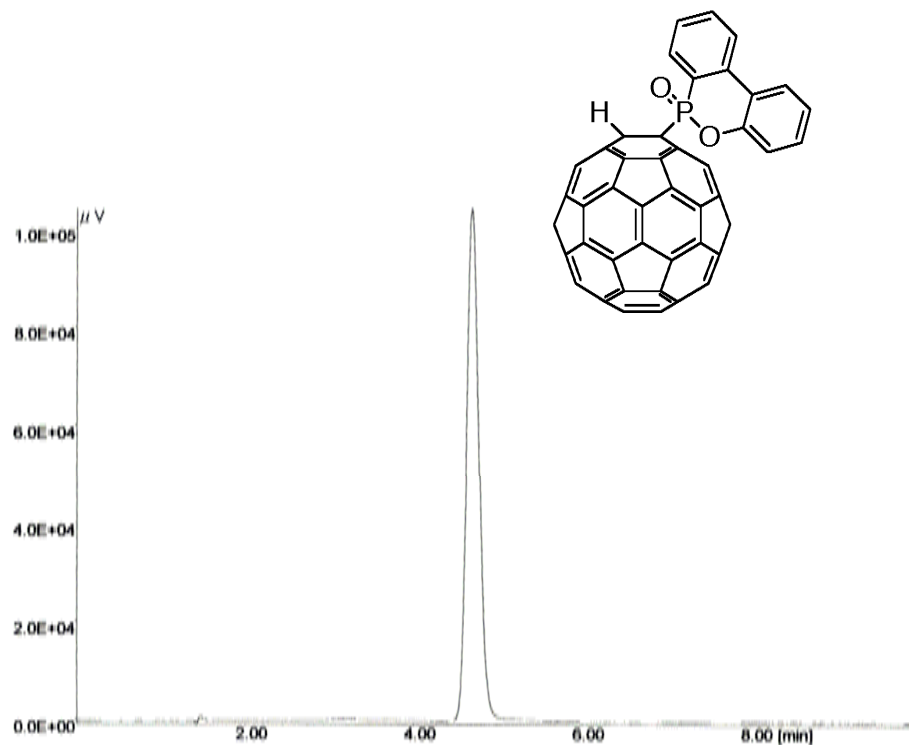
Sample: HC60P(O)(OEt)Ph
CAS No.: -
Molecular formula: C₆₈H₁₁O₂P
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

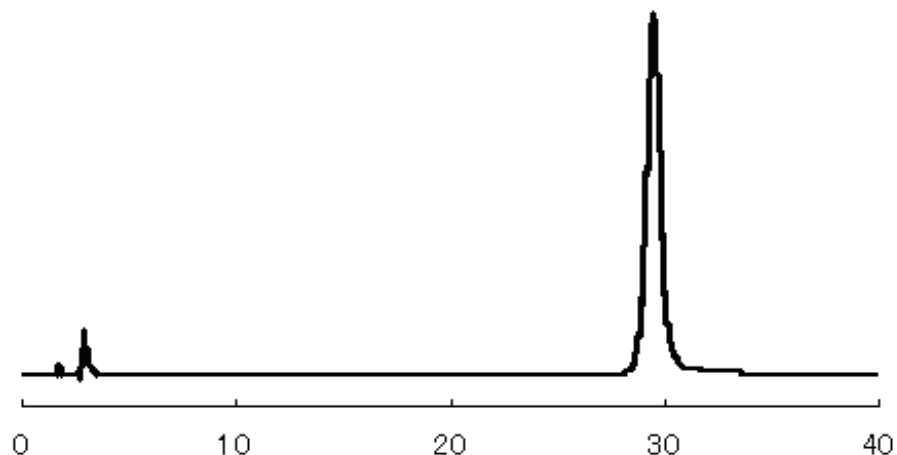
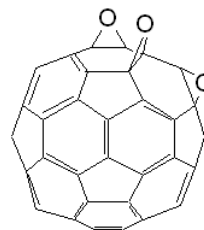
Sample: HC60P(O)(C₁₂H₈O)
CAS No.: -
Molecular formula: C₇₂H₉O₂P
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

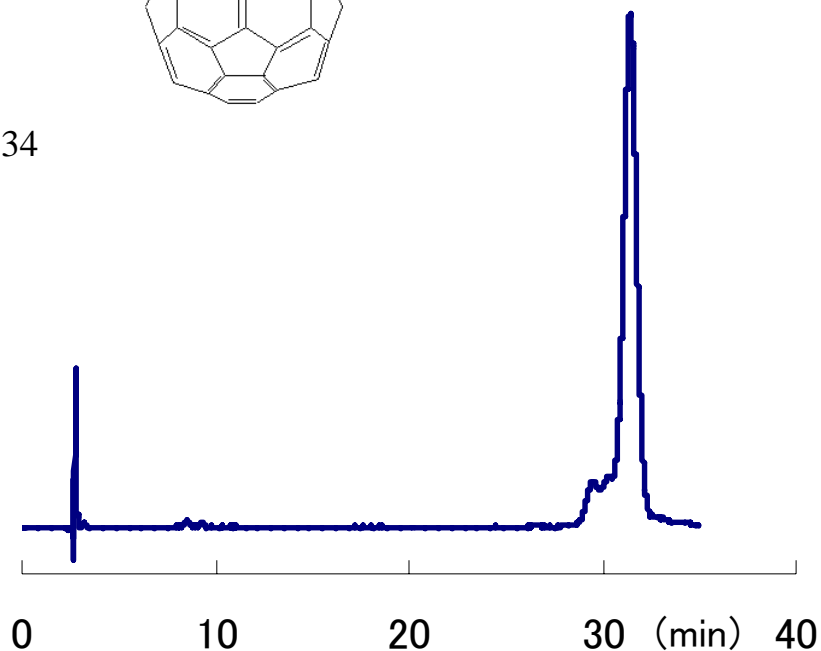
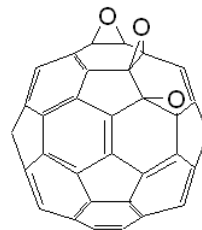
Sample: C60O3(Cs)
CAS No.: -
Molecular formula: C60O3
Column: Buckyprep
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : Acetonitrile = 66 : 34
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV 304 nm
Attenuation: 121 mAU
Sample conc.: -
Injection volume: 5 µl



Data courtesy of
Yusuke Tajima, Dr. Sci. (Nano-Integration Materials Research Unit
RIKEN (Institute of Physics and Chemistry)),
2-1 Hirosawa, Wako, Saitama 351-0198, Japan

Fullerene Chromatogram Index

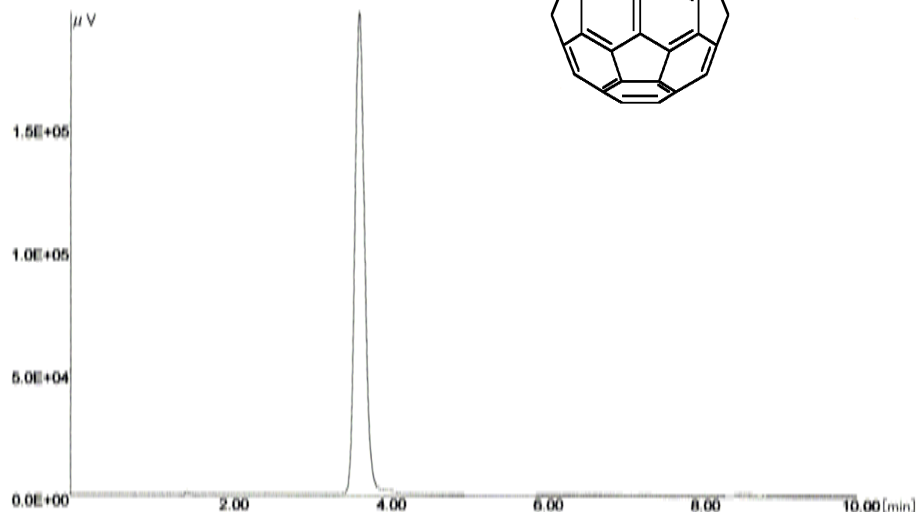
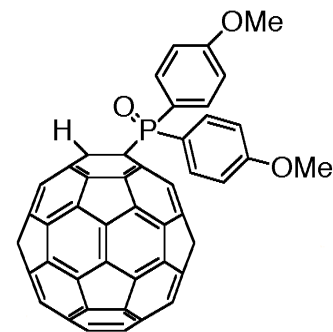
Sample: C60O3(C2)
CAS No.: -
Molecular formula: C60O3
Column: Buckyprep
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : Acetonitrile = 66 : 34
Flow rate: 1.0 ml/min
Temperature: 40°C
Detection: UV 304 nm
Attenuation: 59 mAU
Sample conc.: 0.29 mg/ml
Injection volume: 5 µl



Data courtesy of
Yusuke Tajima, Dr. Sci. (Nano-Integration Materials Research Unit
RIKEN (Institute of Physics and Chemistry)),
2-1 Hirosawa, Wako, Saitama 351-0198, Japan

Fullerene Chromatogram Index

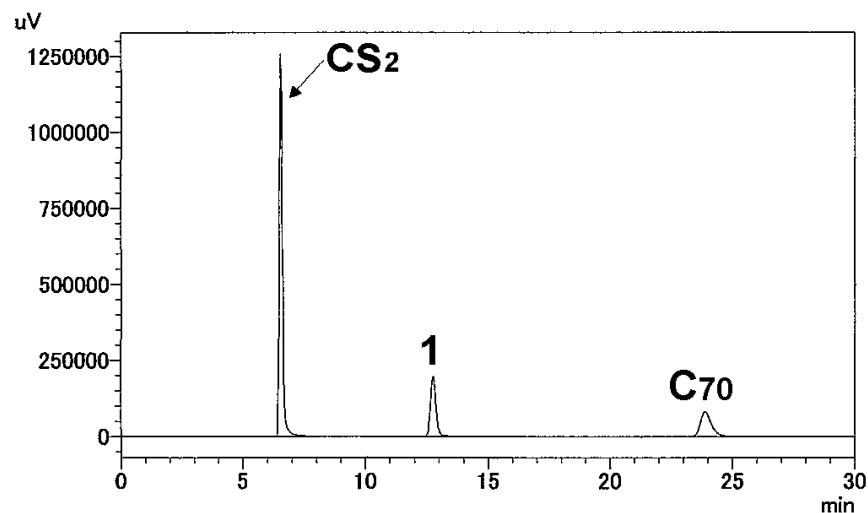
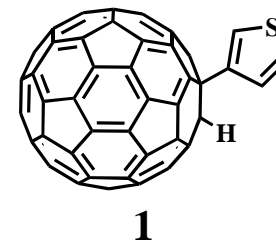
Sample: HC60P(O)(*p*-C₆H₄-OMe)₂
CAS No.: -
Molecular formula: C₇₄H₁₅O₃P
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: 40°C
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: -



Data courtesy of
Prof. Hiroyuki Isobe, Prof. Eiichi Nakamura
(Department of Chemistry, The University of Tokyo)

Fullerene Chromatogram Index

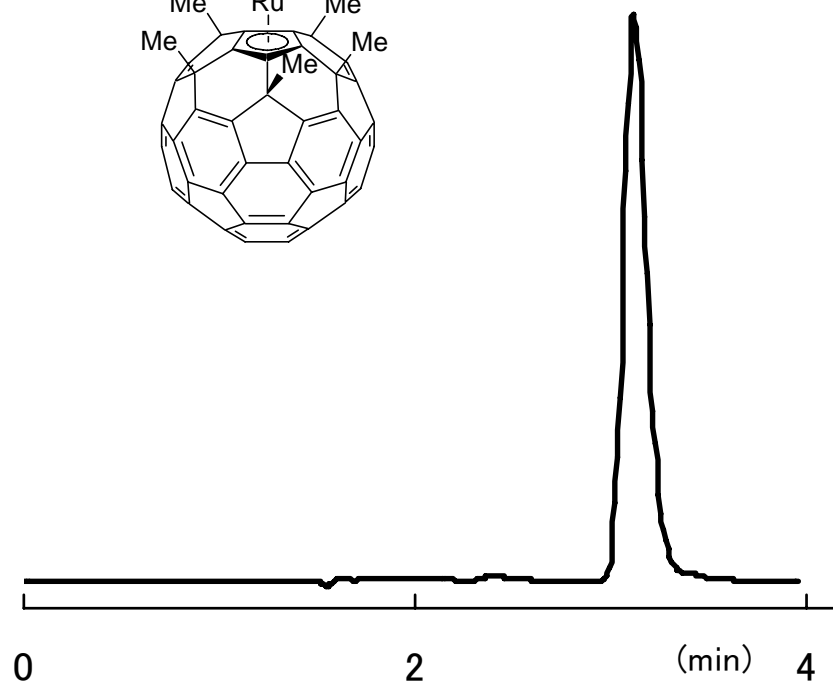
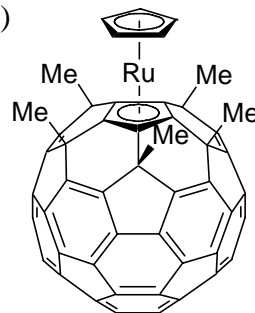
Sample: 1-(3-Thienyl)-1,9-dihydro[60]fullerene
CAS No.: -
Molecular formula: C₆₄H₄S
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene
Flow rate: 0.5 ml/min
Temperature: (25°C) Room temperature
Detection: UV 326 nm
Attenuation: -
Sample conc.: -
Injection volume: 10 µl



Data courtesy of
Prof. Kenichiro Itami, Mr. Masakazu Nambo, Prof. Ryoji Noyori
(Department of Chemistry, Nagoya University)
Ref *J. Am. Chem. Soc.*, **2007**, *129*, 8080-8081 .

Fullerene Chromatogram Index

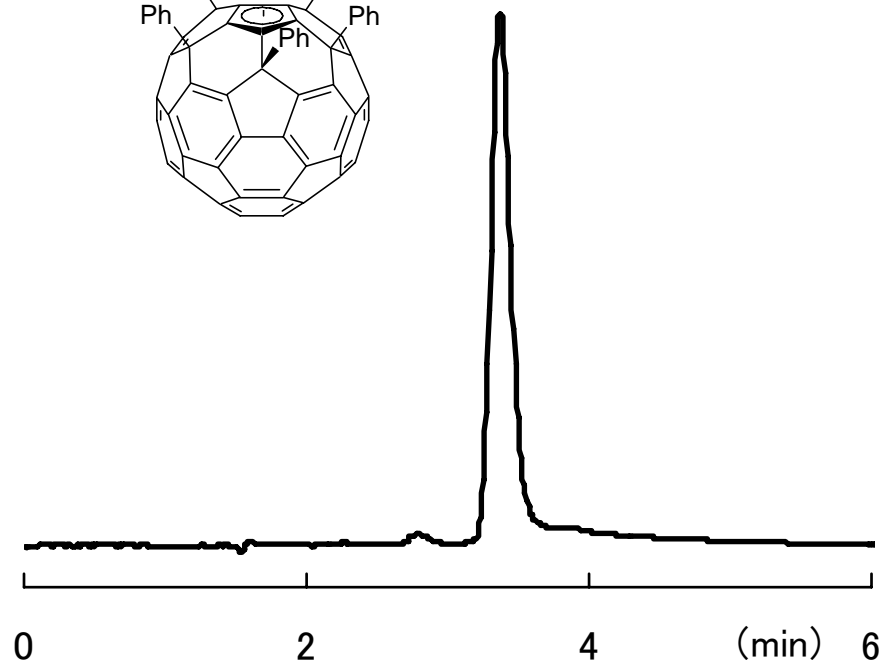
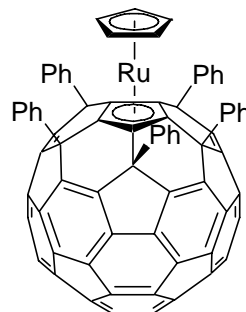
Sample: Ru(C₆₀Me₅)Cp (Cp= Cyclopentadiene)
CAS No.: -
Molecular formula: C₇₀H₂₀Ru
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 μl



Data courtesy of
Dr. Yutaka Matsuo and Prof. Eiichi Nakamura (Nakamura
Functional Carbon Cluster Project, ERATO, Japan Science
and Technology Agency)

Fullerene Chromatogram Index

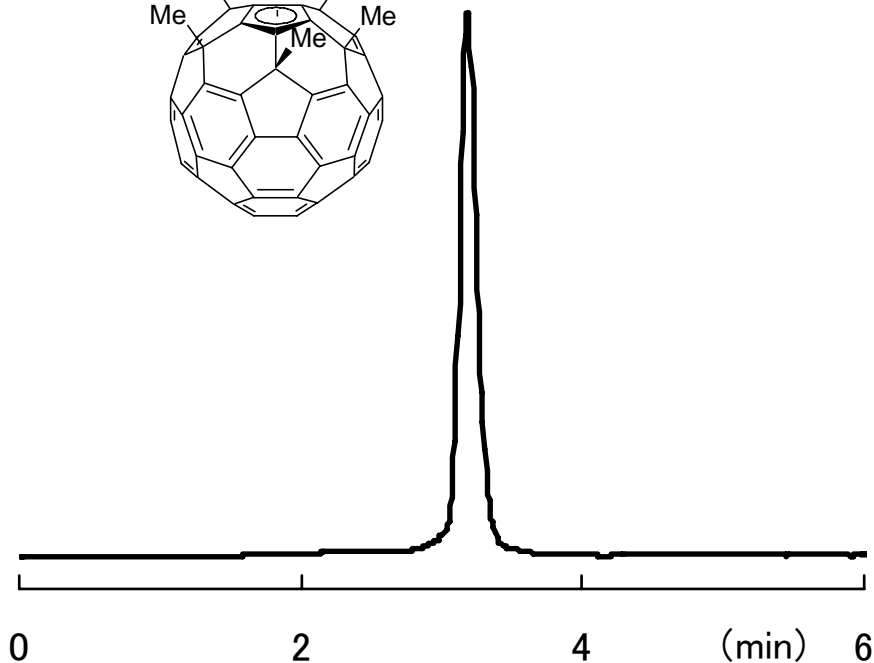
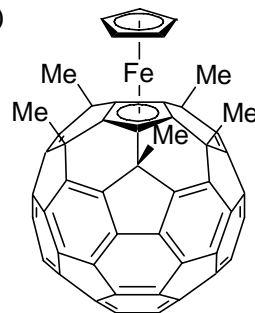
Sample: Ru(C60Ph5)Cp (Cp= Cyclopentadiene)
CAS No.: -
Molecular formula: C95H30Ru
Column: Buckyprep
Column size: 4.6 mmI.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 µl



Data courtesy of
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Fullerene Chromatogram Index

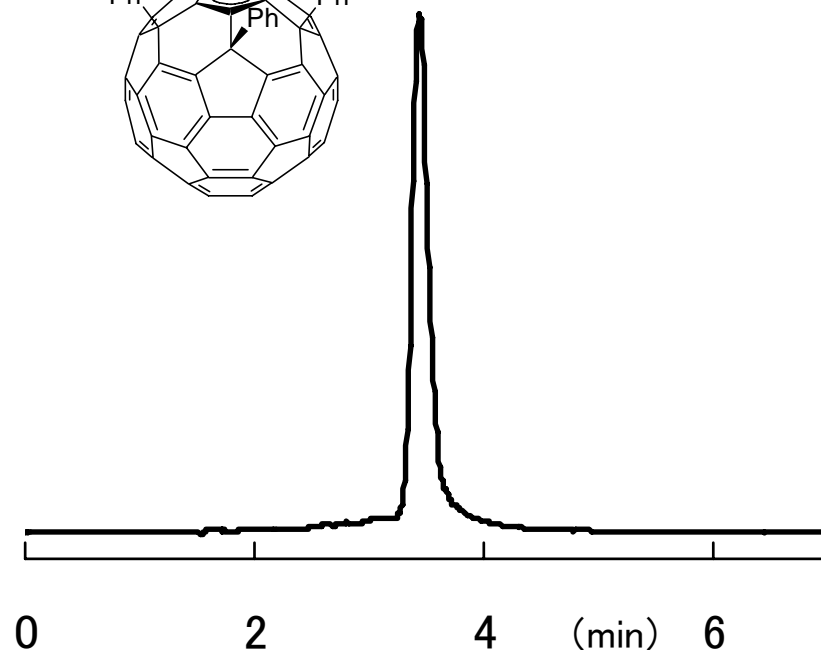
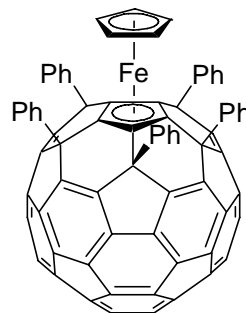
Sample: Fe(C₆₀Me₅)Cp (Cp= Cyclopentadiene)
CAS No.: -
Molecular formula: C₇₀H₂₀Fe
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 μl



Data courtesy of
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Fullerene Chromatogram Index

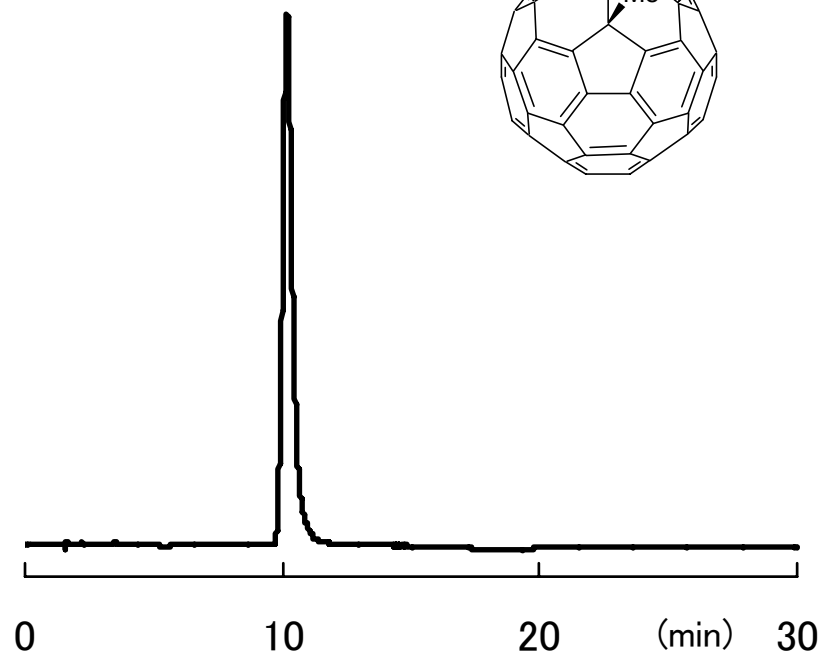
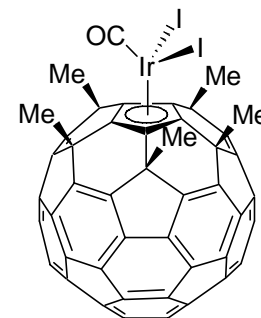
Sample: Fe(C₆₀Ph₅)Cp (Cp= Cyclopentadiene)
CAS No.: -
Molecular formula: C₉₅H₃₀Fe
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 μl



Data courtesy of
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Fullerene Chromatogram Index

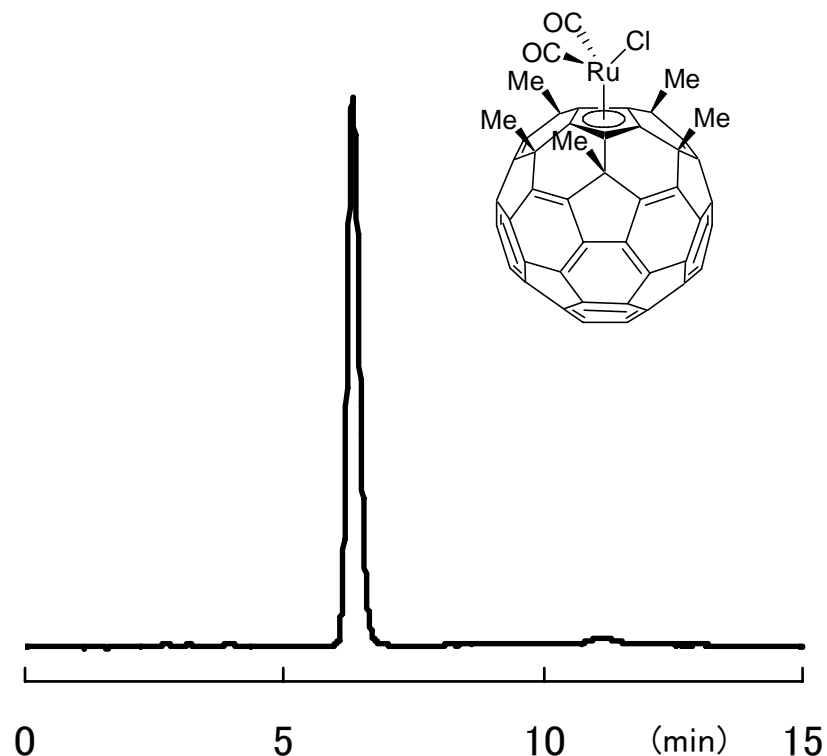
Sample: IrC₆₀Me₅(CO)I₂
CAS No.: -
Molecular formula: C₆₀H₁₅I₂OIr
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: -
Injection volume: 5.0 μl



Data courtesy of
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Fullerene Chromatogram Index

Sample: RuC₆₀Me₅Cl(CO)₂
CAS No.: -
Molecular formula: C₆₇H₁₅ClO₂Ru
Column: Buckyprep
Column size: 4.6 mm I.D.-250 mm
Mobile phase: Toluene : IPA = 70 : 30
Flow rate: 2 ml/min
Temperature: (25°C) Room temperature
Detection: UV 350 nm
Attenuation: -
Sample conc.: 0.40 mg/ml
Injection volume: 10.0 μl



Data courtesy of
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and Technology Agency)