Vermont Department of Health Laboratory
Organic Chemistry Program

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Certificate of Analysis of DataMaster External Standard Solution

On 9/9/2011, an ethanol solution was prepared by Steven Merrill for use as a DataMaster External Standard solution. The solution was prepared per standard laboratory practice and assigned the lot number 12-13-100 and an expiration date of 9/9/2012.

On 9/14/2011 and 9/22/2011, the solution was analyzed against calibration Cal Version #83 and Cal Version #93. Analysis of the solution was performed using headspace gas chromatography. The instrument was calibrated prior to analyses. It was found to have met required quality assurance performance specifications and was operating properly. Quality checks throughout the analytical process demonstrated that the instrument continued to operate properly.

This solution is certified as presenting 0.102 g/210L simulated breath ethanol concentration and approved for use as a DataMaster External Standard solution.

Dated at Burlington, Vermont on Monday, September 26, 2011.

Steven Merrill

0.1 External Standard Solution 20L
Lot # 12-13-100
Prepared 09/09/2011 by SRM
Exp 09/09/2012

JFH CAL Version 83
SRM/ALB Vials
Analyzed on 09/14/2011

0.1013 srm
0.1011
0.1023
0.1022
0.1022
0.1012
0.1006
0.1022 alb
0.1018
0.1018
0.1022
0.1016
0.1019
0.1014

Ave. = 0.1017
Std Dev. = 0.0005
Range = 0.1006 - 0.1023

SRM CAL Version 93
SRM/ALB Vials
Analyzed on 09/22/2011

0.1035 srm
0.1007
0.1032
0.1003
0.1000
0.1046
0.1004
0.1016 alb
0.1018
0.1023
0.1017
0.1031
0.1031
0.1033

Ave. = 0.1021
Std Dev. = 0.0014
Range = 0.1000 - 0.1046

Total Values from Both Runs

Average	Mean
0.1000	0.1000
0.1003	0.1003
0.1004	0.1004
0.1006	0.1006
0.1007	0.1007
0.1011	0.1011
0.1012	0.1012
0.1013	0.1013
0.1014	0.1014
0.1016	0.1016
0.1016	
0.1017	0.1017
0.1018	0.1018
0.1018	
0.1018	
0.1019	0.1019
0.1022	0.1022
0.1022	
0.1022	
0.1022	
0.1023	0.1023
0.1023	
0.1031	0.1031
0.1031	
0.1032	0.1032
0.1033	0.1033
0.1035	0.1035
0.1046	0.1046

Ave. =	0.1019
Std Dev. =	0.0011
Range =	0.1000 - 0.1046
Mean =	0.1018
Mean Std Dev. =	0.0012
RPD (Mean to Ave.)=	0.01%

Reviewed 9/27/11

Reviewed 9-27-11

DataMaster Simulator Solution
Lot # 12-13-100 $EtOH_{aq}$ Conc: 0.102
Range: 0.097 - 0.107
Preparation Date: 09/09/2011 Expires: 09/09/2012

OPENED:

File Name: C:\Methods\SimSolution.cal
Version: 83

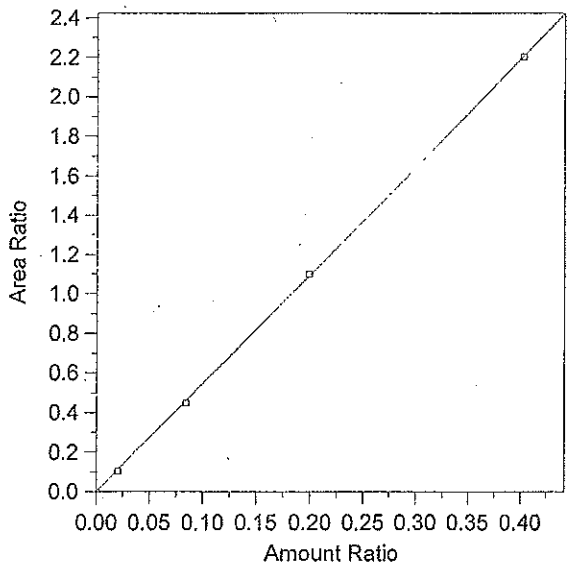
Creator:
Description:
Reason for change:

Internal standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 15000
Reference peak area reject threshold: 0
Amount units:
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

3 Ethanol



Expected retention time:	2.536 minutes
Search window:	0.1 minutes
Internal standard component:	7 (n-Propanol)
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

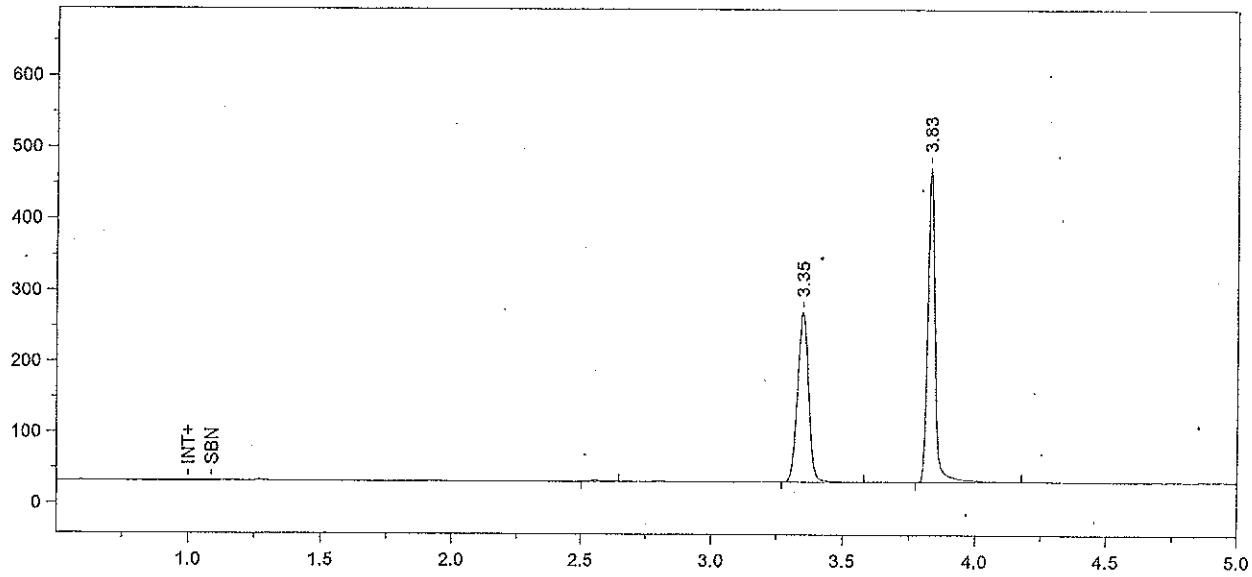
Single peak quantification by area

Y = 5.485726 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9999402
Average error:	1.291%
Average CF:	4.334346
RSD:	55.940%

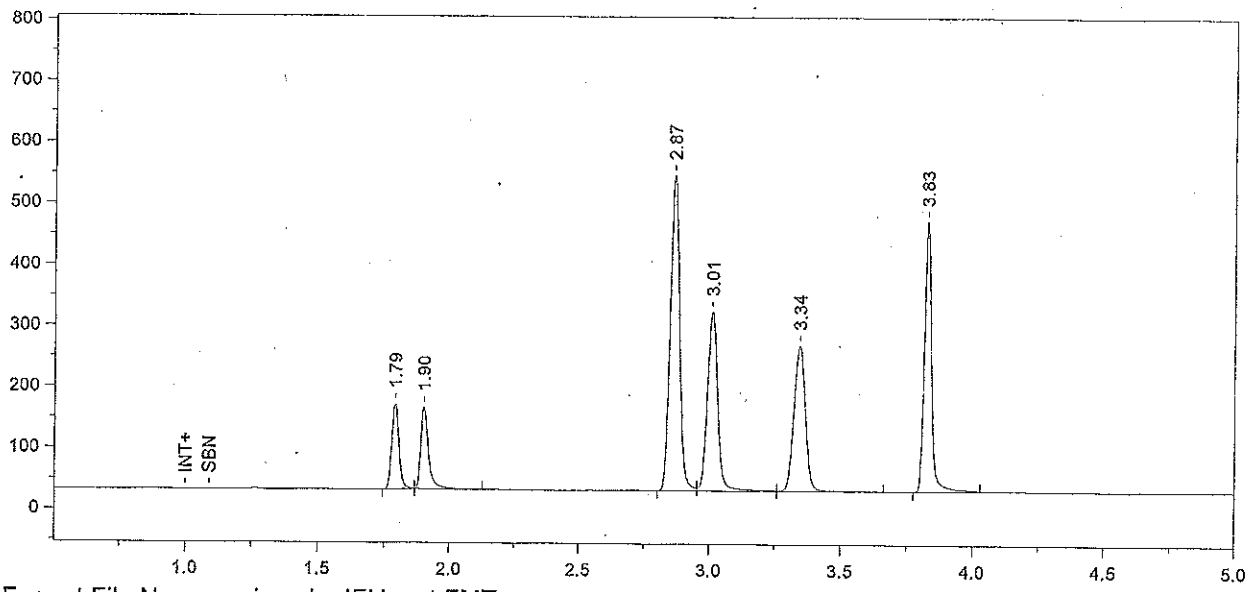
Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	0	(0)	--	0.000	0	0	Manual	4/11/2005 10:03:40 AM
2	0.02	92535.94	4626797	-3.311	0.02	0.1060817	C:\Alcohol Data\Alc091211\Alc091211.0010.BND	9/12/2011 1:31:40 PM
3	0.084	394684.4	4698624	-2.311	0.084	0.4501515	C:\Alcohol Data\Alc091211\Alc091211.0011.BND	9/12/2011 1:31:47 PM
4	0.199	937316.7	4710134	0.755	0.199	1.0999	C:\Alcohol Data\Alc091211\Alc091211.0012.BND	9/12/2011 1:50:31 PM
5	0.402	1963900	4885324	-0.076	0.402	2.203588	C:\Alcohol Data\Alc091211\Alc091211.0013.BND	9/12/2011 2:06:35 PM



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/12/2011
Today's Time = 2:16:50 PM
Bound File Name = Alc091211.0008.RAW
Sample Name = Blank
Date Taken = 9/12/2011 12:51:30 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	3.35	t-Butanol	701892	0.9966	0.8134
3	3.83	n-Propanol	862272	1.0000	0.8162



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Today's Time = 2:16:53 PM
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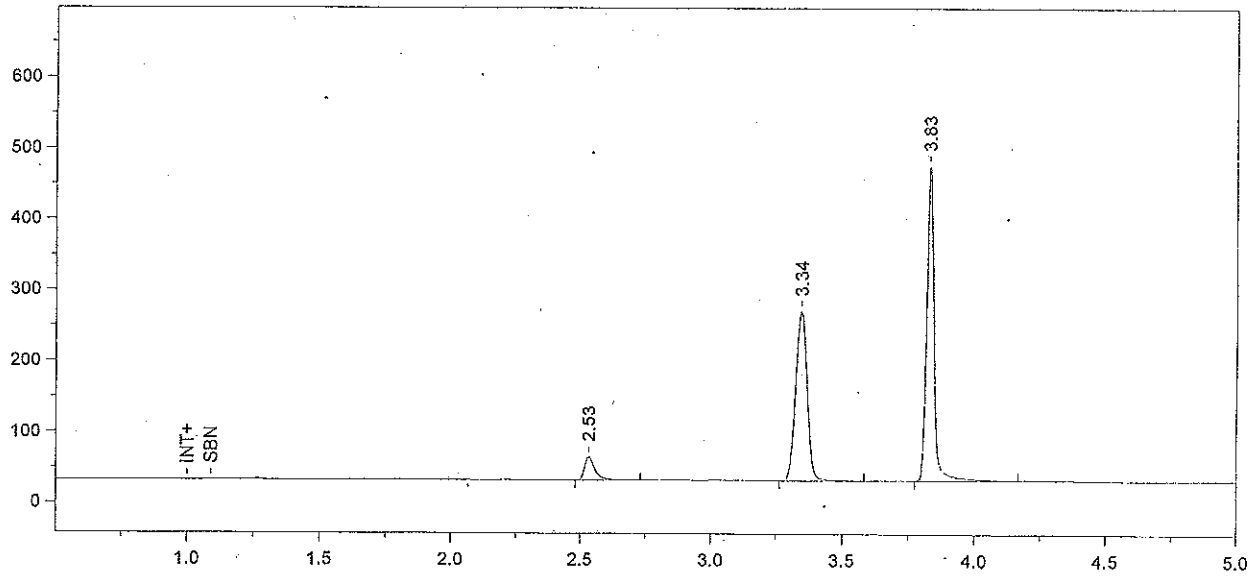
Sample Name = TMX
Date Taken = 9/12/2011 1:06:26 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	1.79	Acetaldehyde	273301	0.0510	0.0416
3	2.87	Acetone	1288159	0.0600	0.0490
4	3.01	Isopropanol	806473	0.0810	0.0661
5	3.34	t-Butanol	715395	1.0230	0.8350
6	3.83	n-Propanol	856123	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

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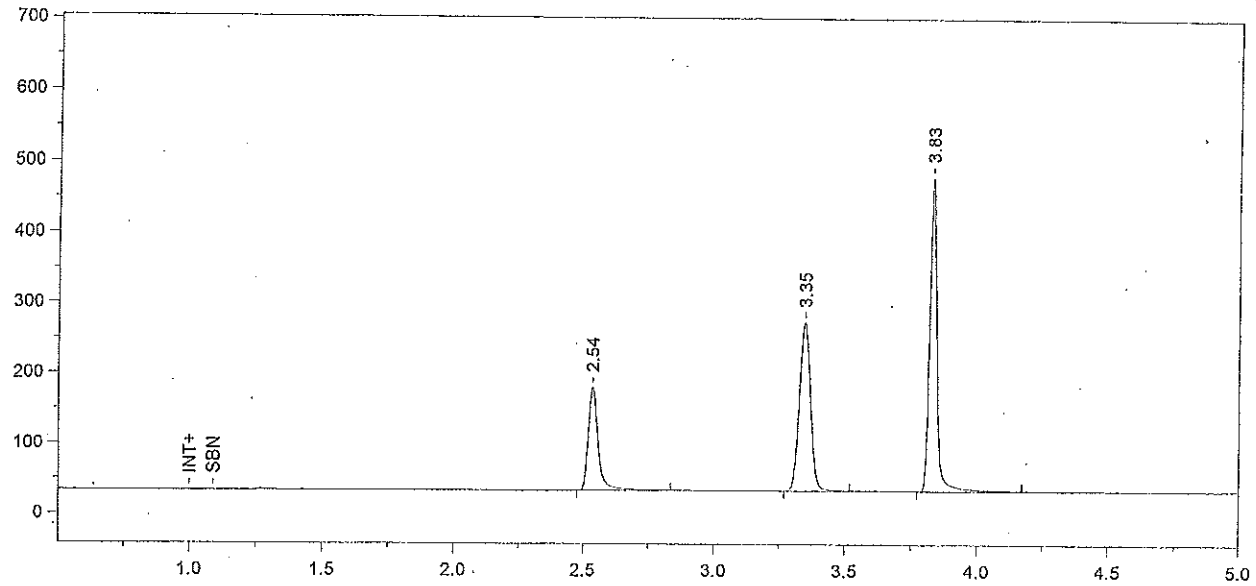
Today's Time = 2:16:56 PM
Bound File Name = Alc091211.0010.RAW
Sample Name = Std A
Date Taken = 9/12/2011 1:21:27 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file =.SimSolution.cal
Calibration Version = 83

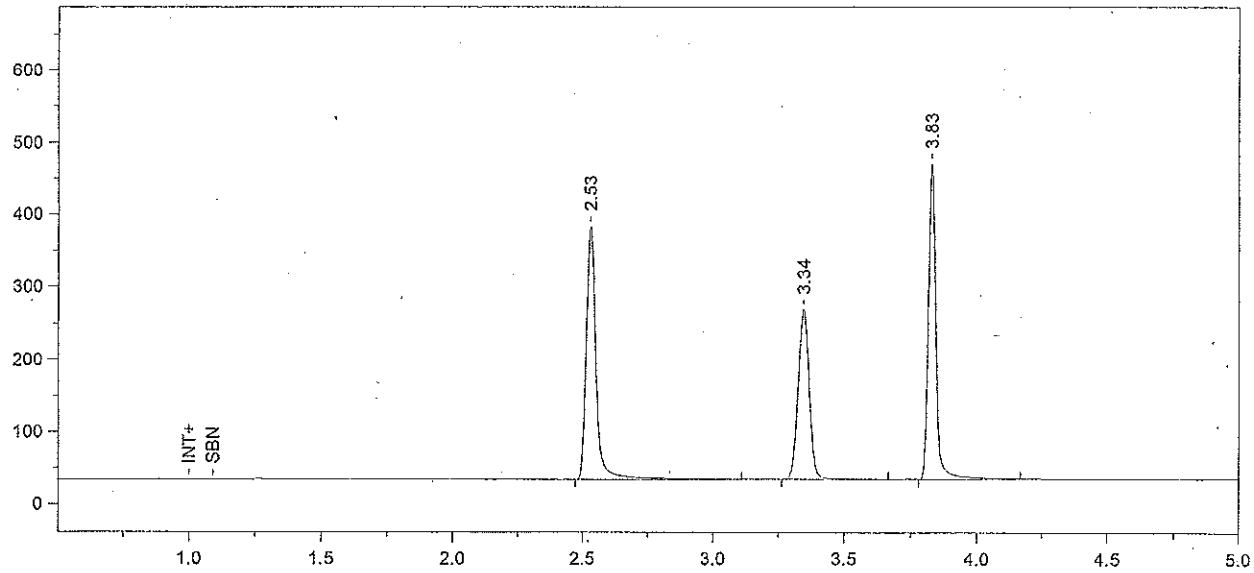
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	92536	0.0193	0.0158
2	3.34	t-Butanol	709445	0.9957	0.8127
3	3.83	n-Propanol	872308	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/12/2011
Today's Time = 2:17:00 PM
Bound File Name = Alc091211.0011.RAW
Sample Name = Std B
Date Taken = 9/12/2011 1:29:32 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

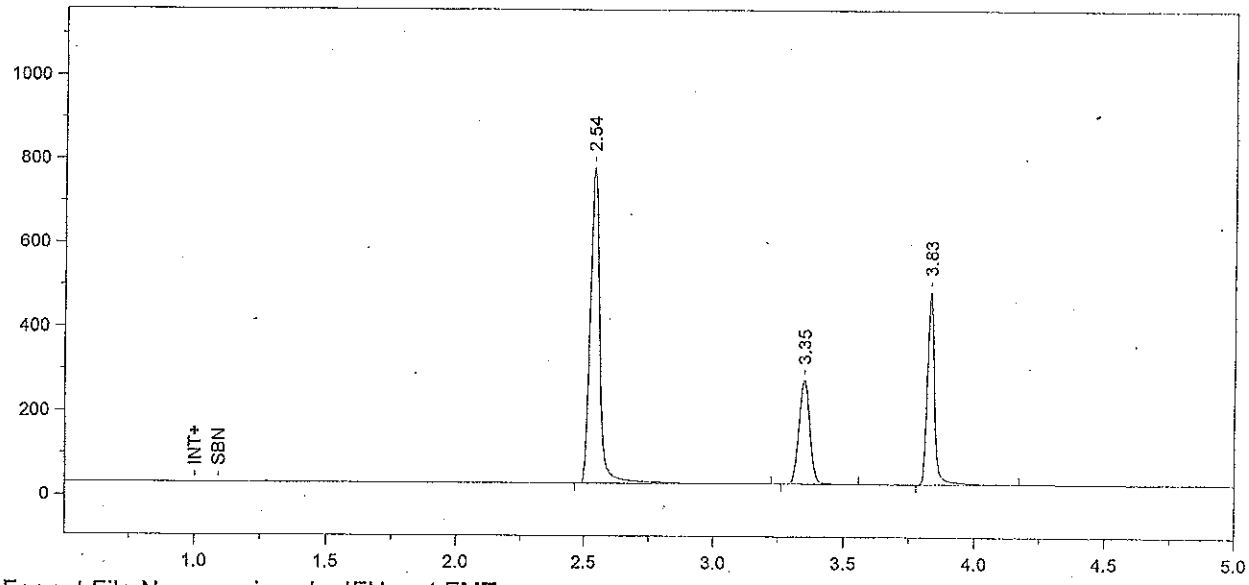
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	394684	0.0821	0.0670
2	3.35	t-Butanol	706952	0.9871	0.8057
3	3.83	n-Propanol	876781	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/12/2011 Today's Time = 2:17:04 PM
Bound File Name = Alc091211.0012.RAW
Sample Name = Std C
Date Taken = 9/12/2011 1:50:24 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	937317	0.2005	0.1636
2	3.34	t-Butanol	694305	0.9975	0.8141
3	3.83	n-Propanol	852183	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/12/2011 Today's Time = 2:17:08 PM
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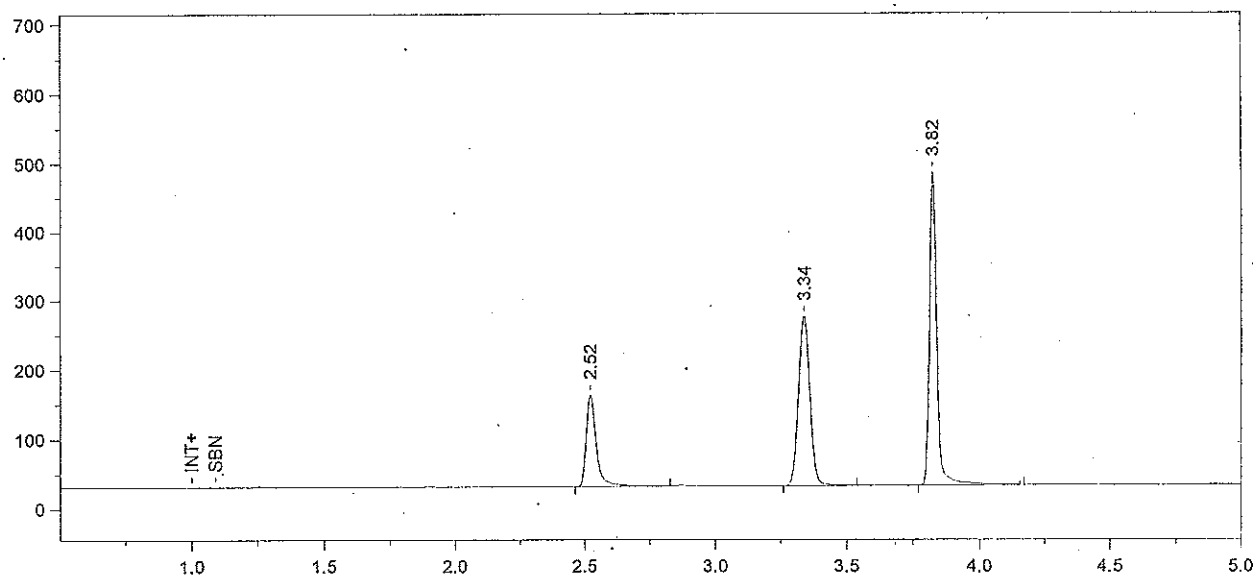
Sample Name = Std D
Date Taken = 9/12/2011 2:06:32 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	1963900	0.4017	0.3279
2	3.35	t-Butanol	725521	0.9966	0.8135
3	3.83	n-Propanol	891228	1.0000	0.8162



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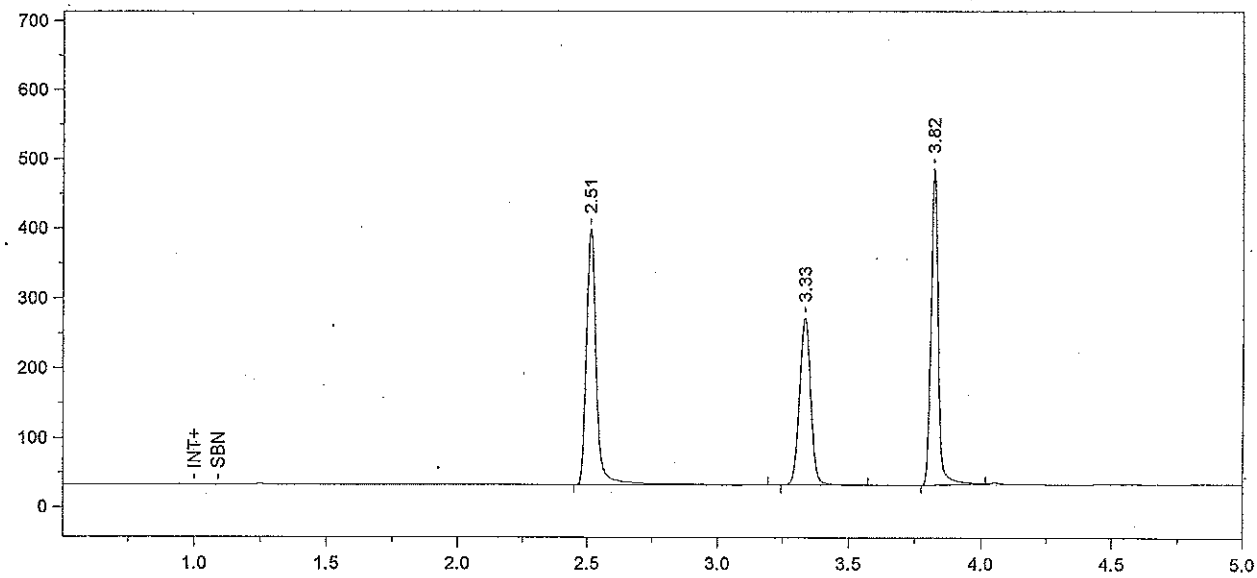
Sample Name = Aq QC
Date Taken = 9/12/2011 2:18:21 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	359477	0.0739	0.0603
2	3.34	t-Butanol	723556	0.9986	0.8150
3	3.82	n-Propanol	887108	1.0000	0.8162

91.2%
9/27/11
9-27-11



Format File Name = simsoln-JFH.met.FMT

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Today's Time = 10:13:59 AM
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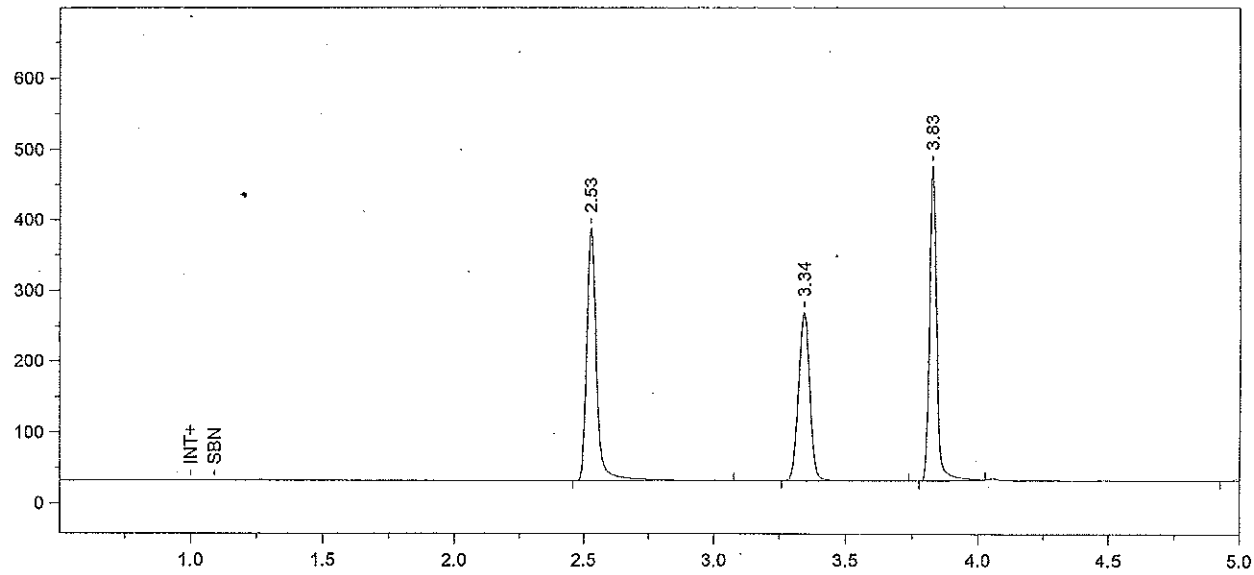
Sample Name = CCS C
Date Taken = 9/14/2011 10:13:58 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

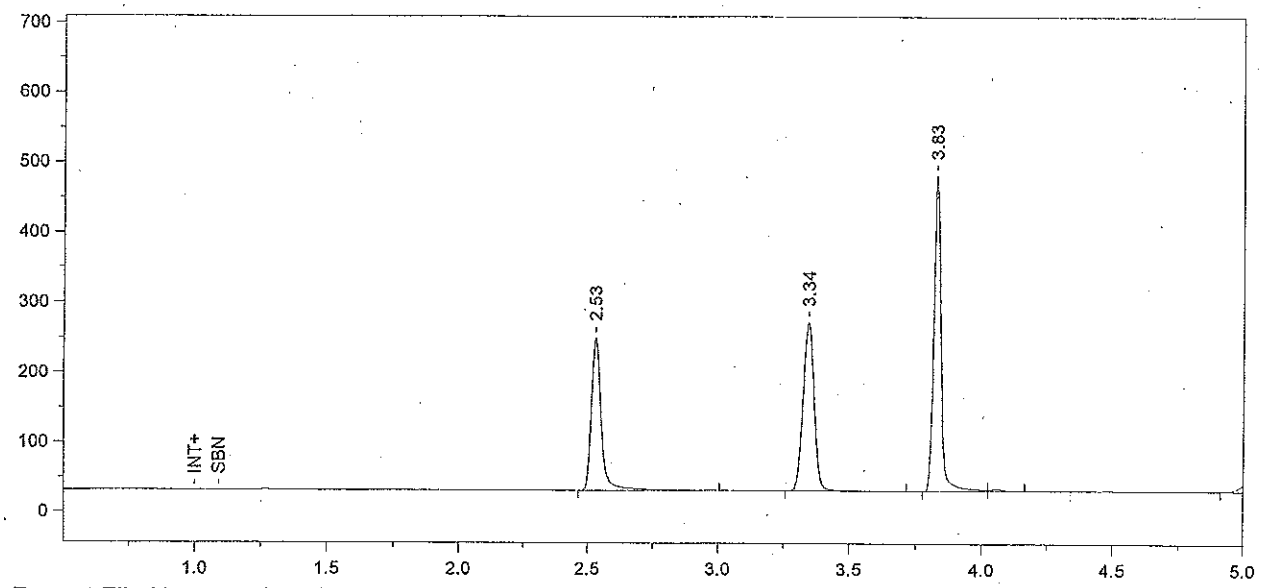
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.51	Ethanol	976886	0.2048	0.1672
2	3.33	t-Butanol	714244	1.0058	0.8209
3	3.82	n-Propanol	869434	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011 Today's Time = 10:34:03 AM
Bound File Name = Sim091411.0002.RAW
Sample Name = CCS C
Date Taken = 9/14/2011 10:34:00 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

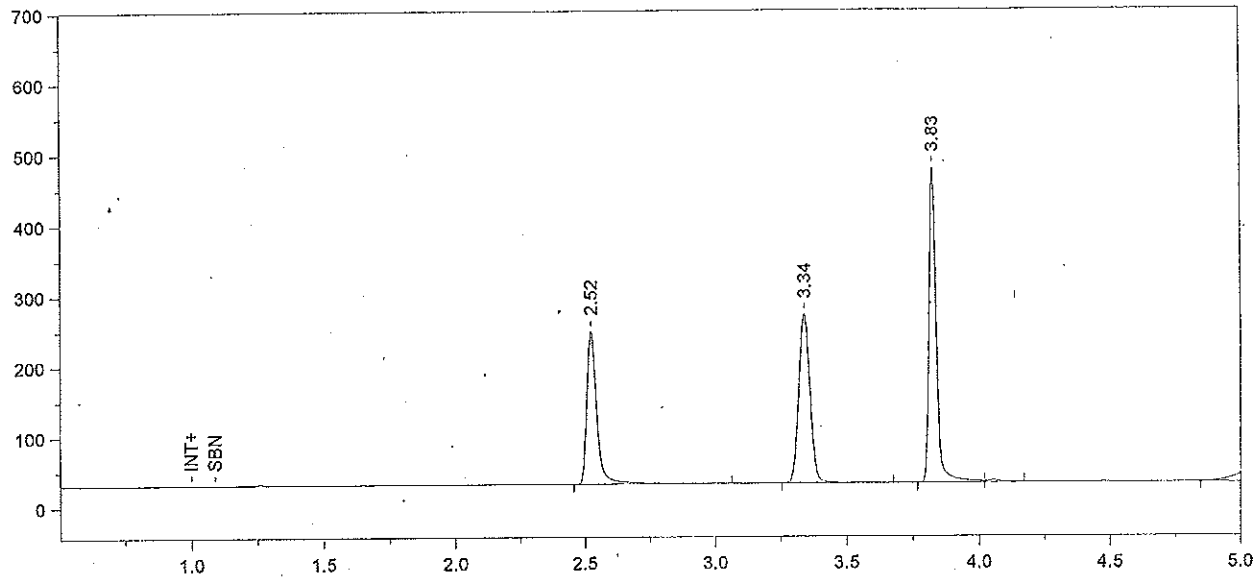
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	947590	0.2035	0.1661
2	3.34	t-Butanol	702605	1.0132	0.8270
3	3.83	n-Propanol	848958	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011
Today's Time = 10:49:10 AM
Bound File Name = Sim091411.0003.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/14/2011 10:49:01 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

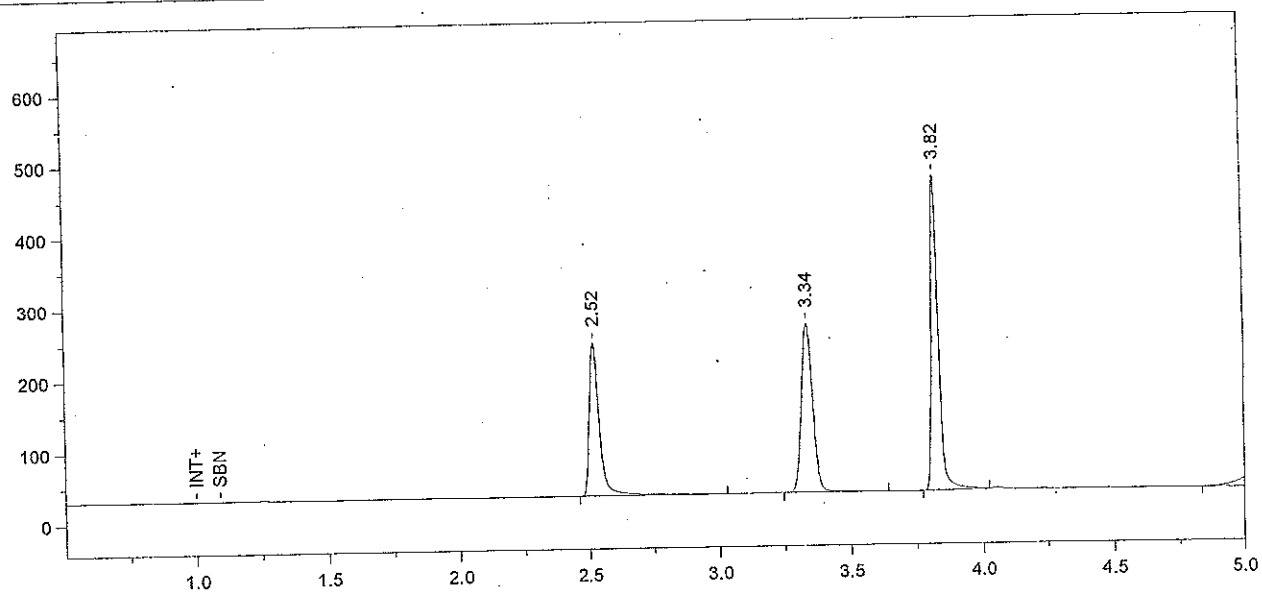
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	591226	0.1241	0.1013
2	3.34	t-Butanol	713522	1.0056	0.8208
3	3.83	n-Propanol	868694	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011
Today's Time = 11:04:07 AM
Bound File Name = Sim091411.0004.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/14/2011 11:04:03 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	590784	0.1239	0.1011
2	3.34	t-Butanol	712876	1.0042	0.8196
3	3.83	n-Propanol	869134	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

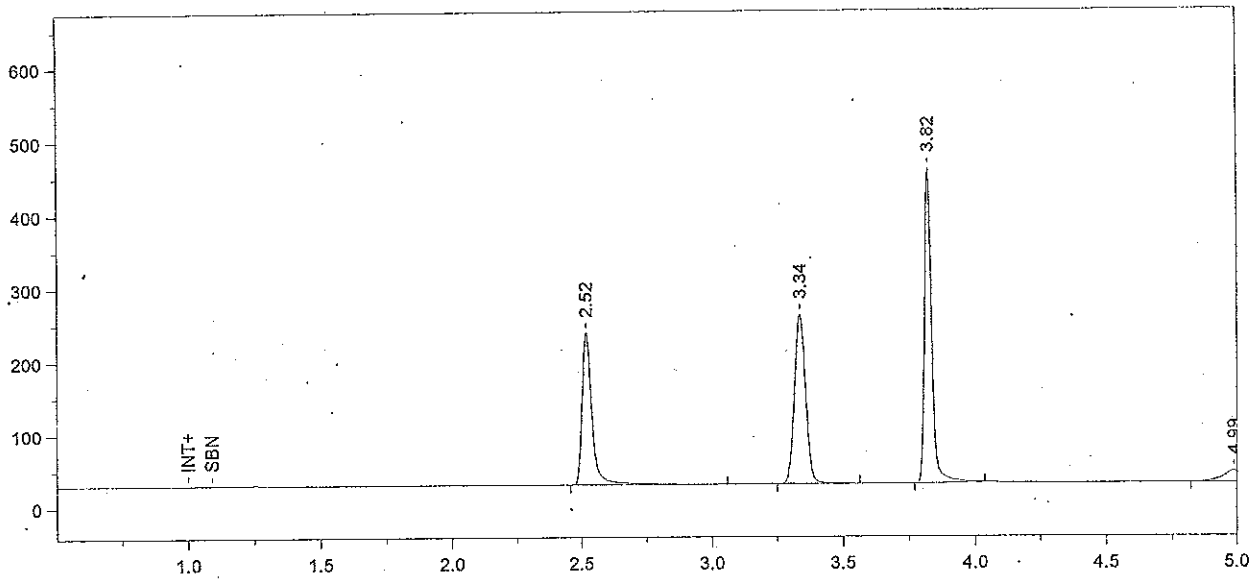
Today's Date = 9/14/2011
Bound File Name = Sim091411.0005.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/14/2011 11:19:04 AM
Method file = simsoln.met
Calibration file = SimSolution.cal

Today's Time = 11:19:06 AM

VDH Headspace Alcohol

Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	585019	0.1254	0.1023
2	3.34	t-Butanol	705500	1.0155	0.8289
3	3.82	n-Propanol	850529	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

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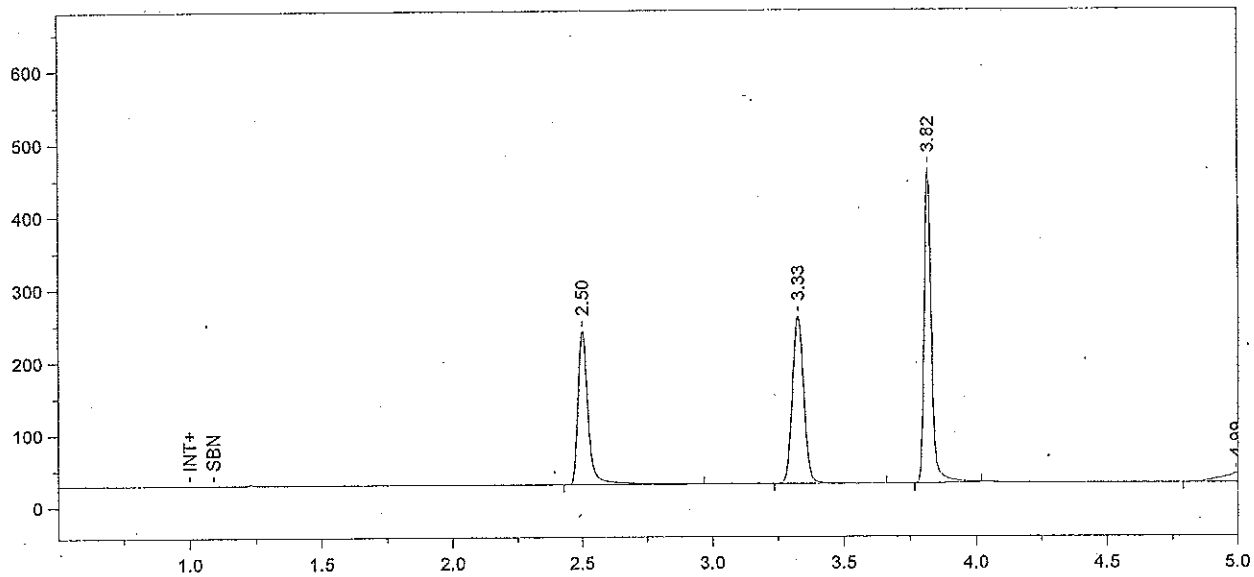
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/14/2011 11:34:03 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	569162	0.1252	0.1022
2	3.34	t-Butanol	683322	1.0093	0.8238
3	3.82	n-Propanol	828885	1.0000	0.8162



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Today's Date = 9/14/2011
Today's Time = 11:49:14 AM
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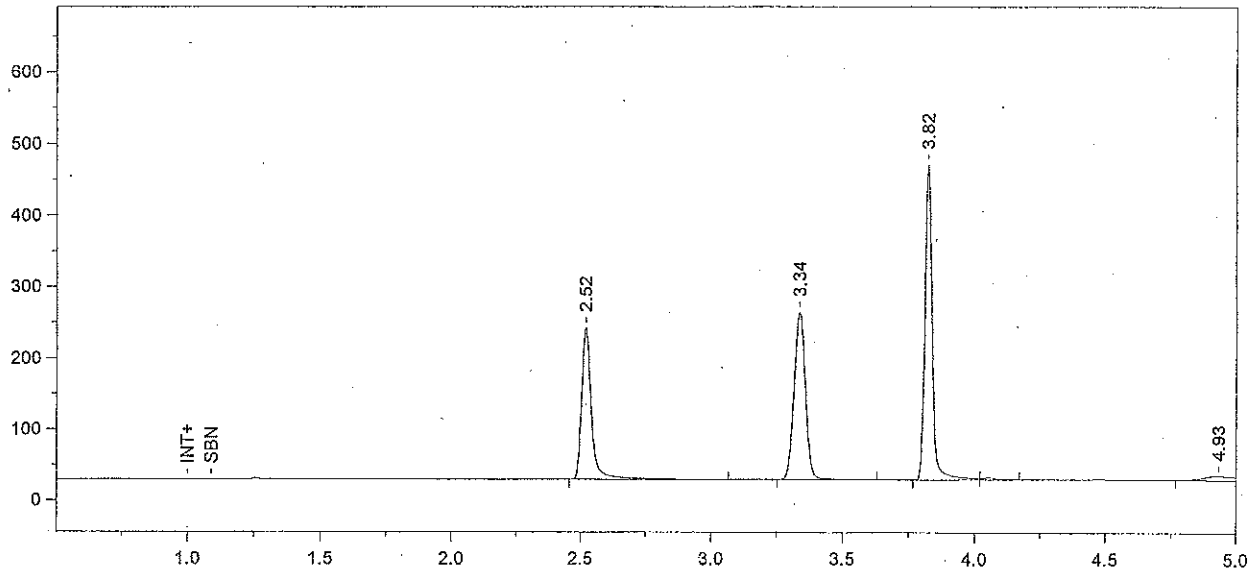
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/14/2011 11:49:10 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.50	Ethanol	575347	0.1253	0.1022
2	3.33	t-Butanol	691380	1.0109	0.8251
3	3.82	n-Propanol	837328	1.0000	0.8162



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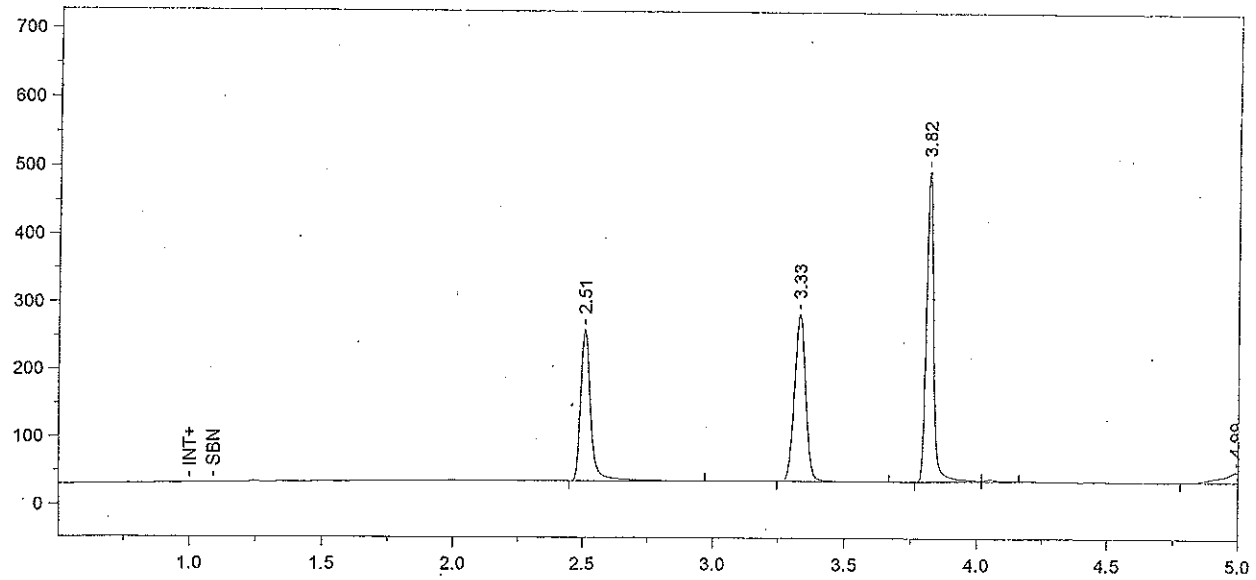
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/14/2011 12:04:11 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	579776	0.1240	0.1012
2	3.34	t-Butanol	695711	0.9995	0.8158
3	3.82	n-Propanol	852154	1.0000	0.8162



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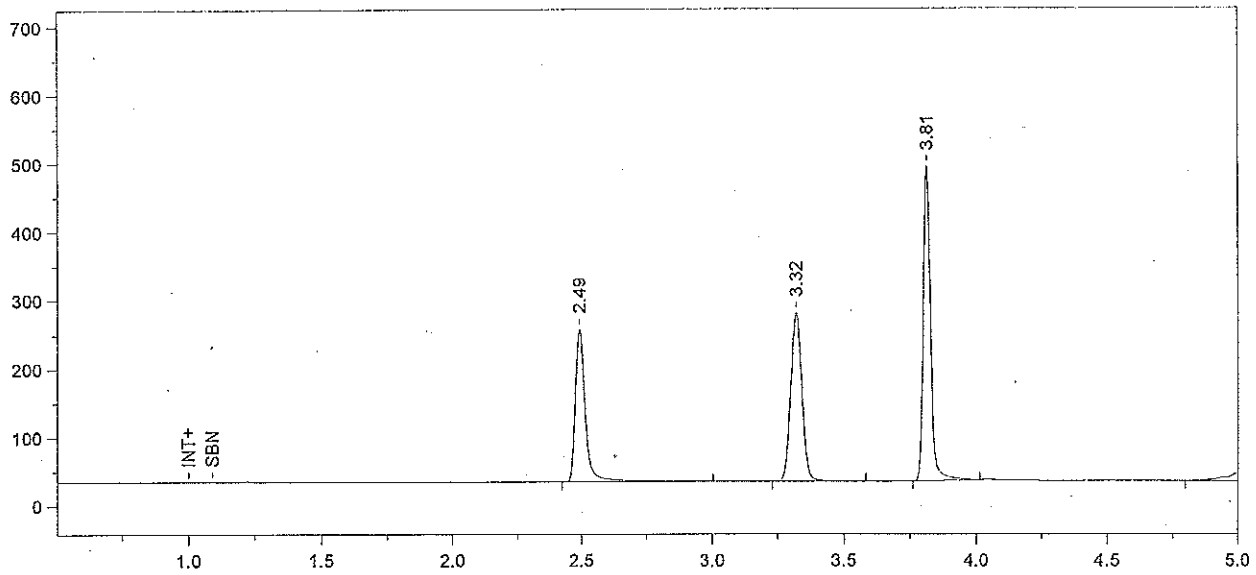
Date Taken = 9/14/2011 12:19:07 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.51	Ethanol	608209	0.1233	0.1006
2	3.33	t-Butanol	739883	1.0074	0.8222
3	3.82	n-Propanol	899182	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011 Today's Time = 12:34:11 PM
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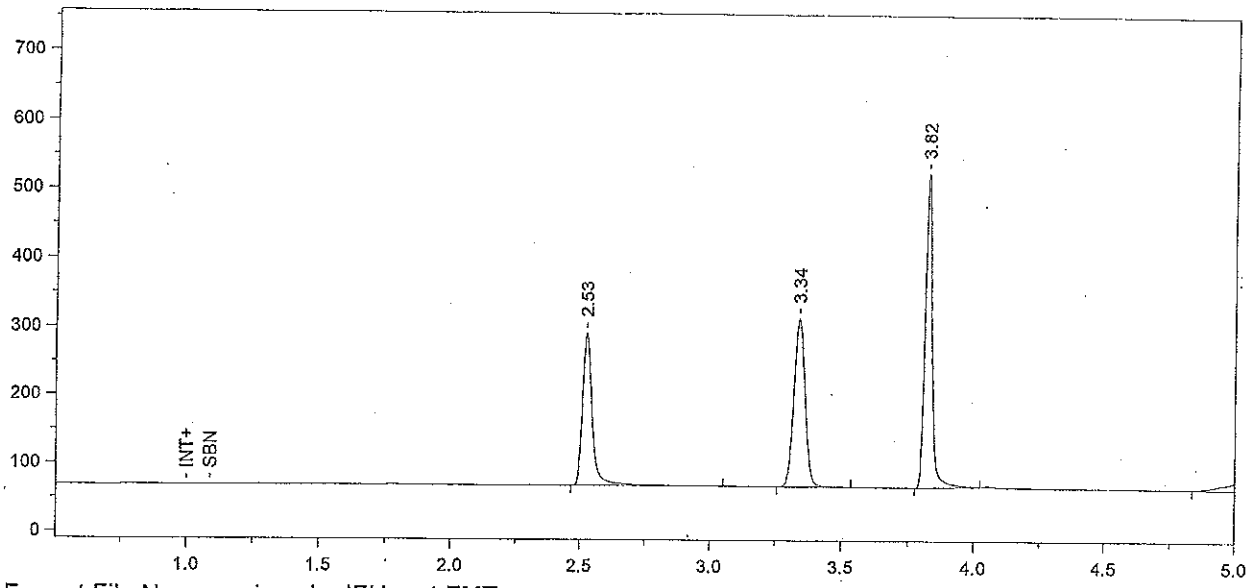
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 12:34:08 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.49	Ethanol	608015	0.1252	0.1022
2	3.32	t-Butanol	733445	1.0141	0.8277
3	3.81	n-Propanol	885499	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

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Today's Time = 12:49:15 PM
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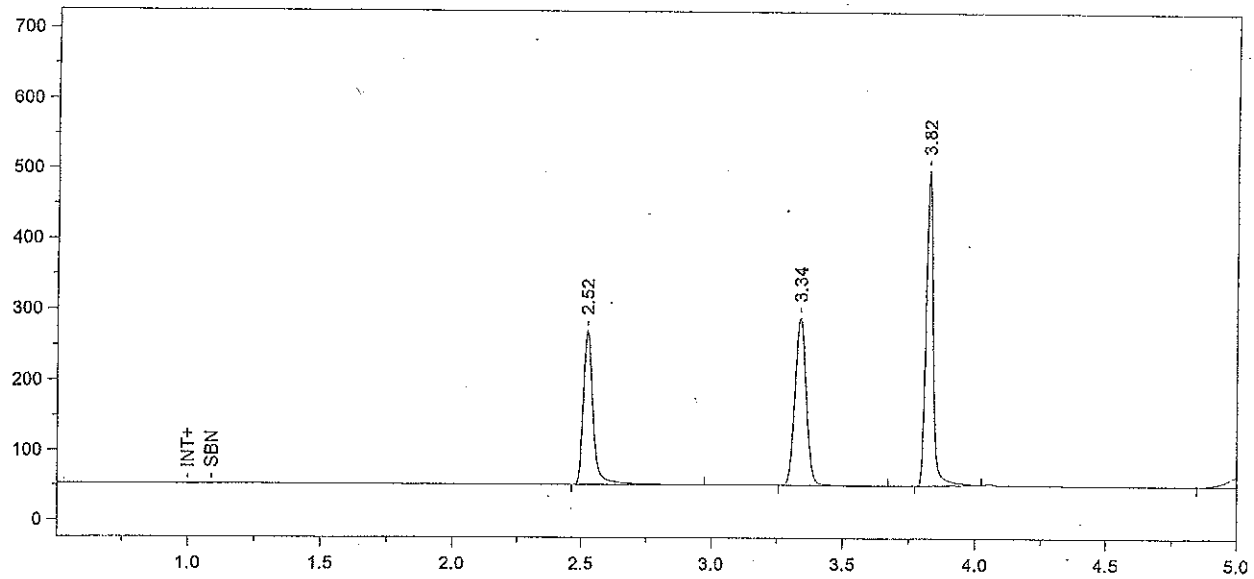
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 12:49:09 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	604007	0.1247	0.1018
2	3.34	t-Butanol	726237	1.0071	0.8220
3	3.82	n-Propanol	882850	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

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Today's Time = 1:04:12 PM
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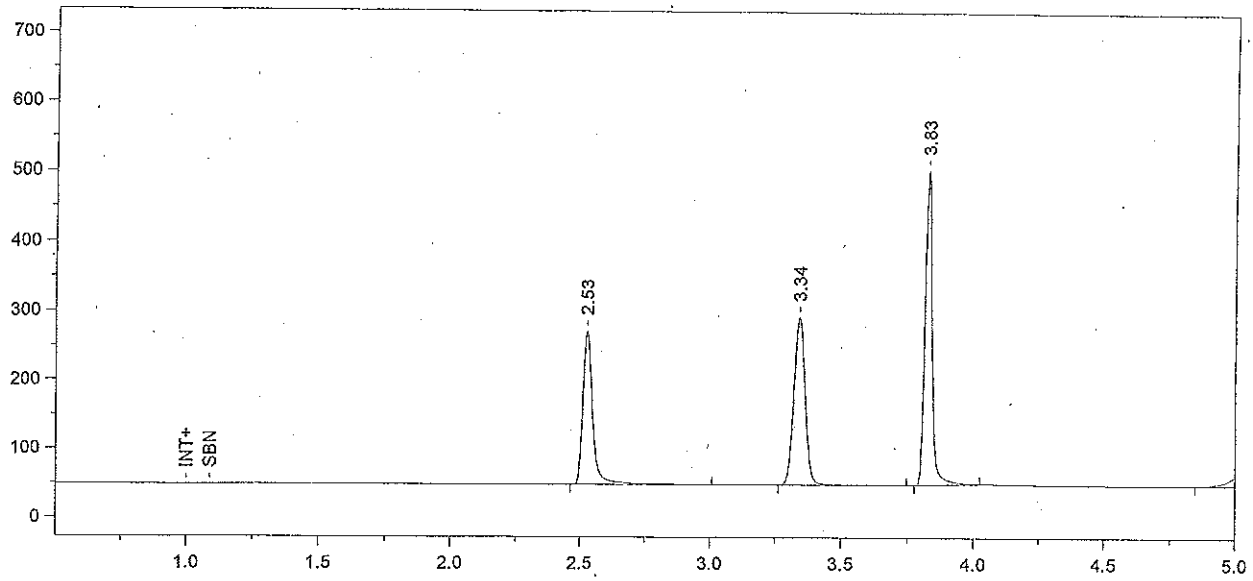
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 1:04:10 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

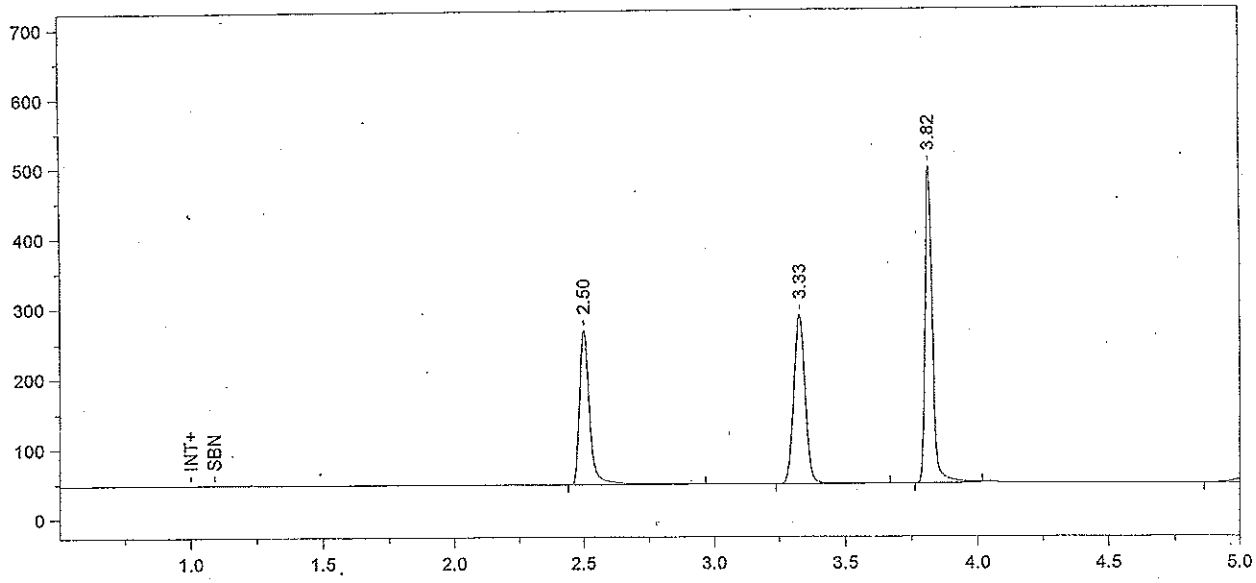
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	589078	0.1247	0.1018
2	3.34	t-Butanol	708208	1.0071	0.8220
3	3.82	n-Propanol	860950	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011
Today's Time = 1:19:17 PM
Bound File Name = Sim091411.0013.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 1:19:13 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

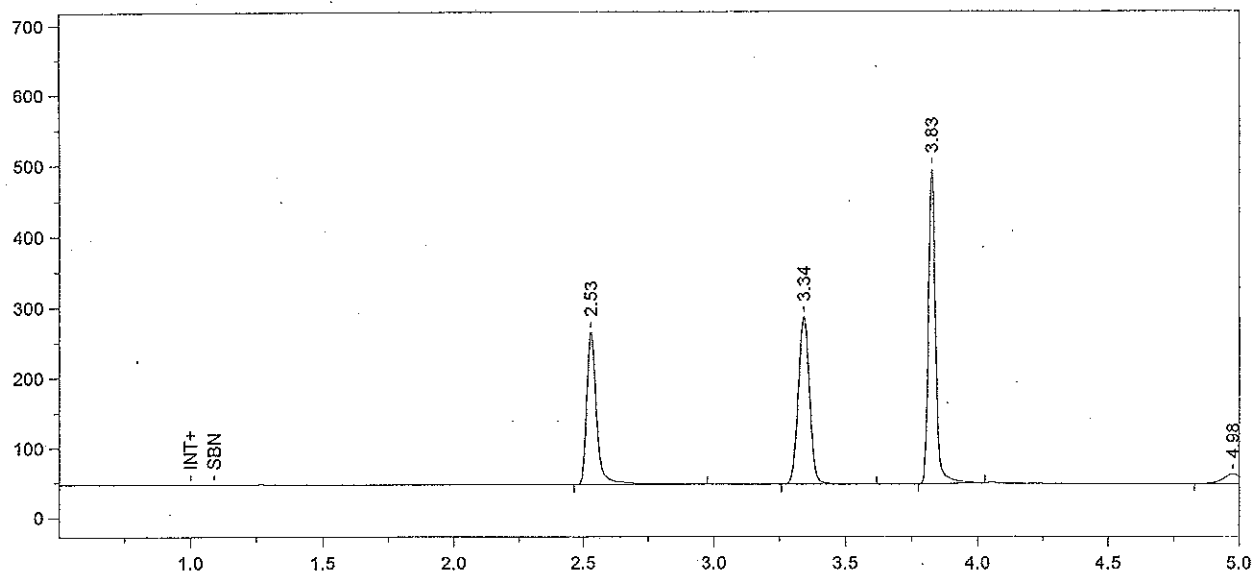
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	601036	0.1252	0.1022
2	3.34	t-Butanol	725474	1.0150	0.8284
3	3.83	n-Propanol	875100	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011
Today's Time = 1:34:20 PM
Bound File Name = Sim091411.0014.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 1:34:14 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

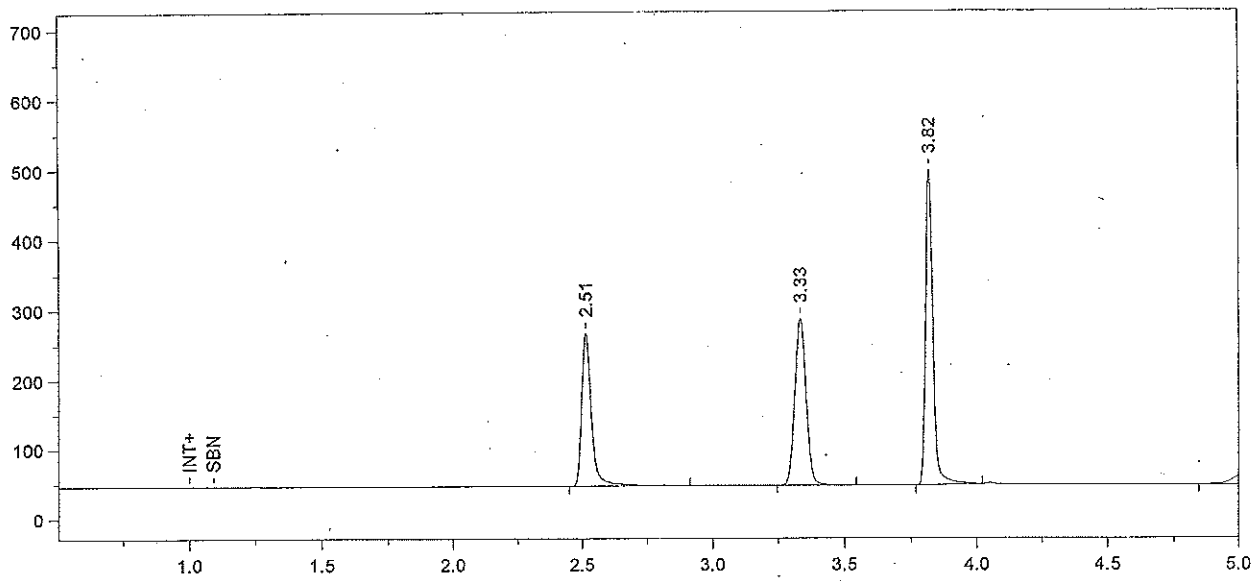
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.50	Ethanol	593198	0.1245	0.1016
2	3.33	t-Butanol	720605	1.0156	0.8289
3	3.82	n-Propanol	868689	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011 Today's Time = 1:49:17 PM
Bound File Name = Sim091411.0015.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 1:49:16 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

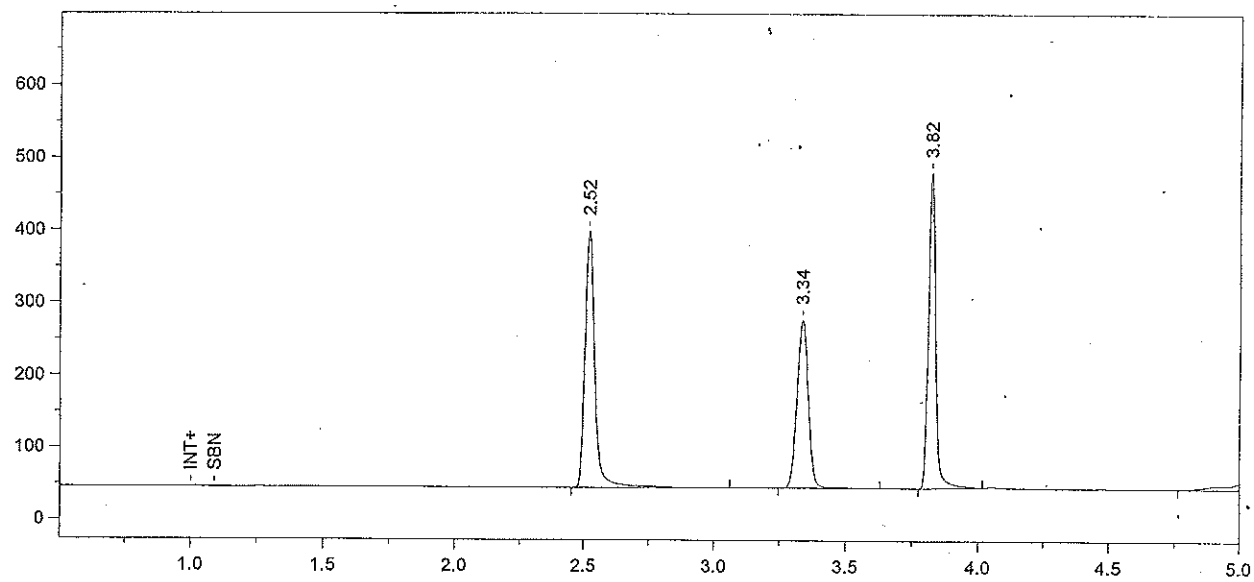
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	586458	0.1248	0.1019
2	3.34	t-Butanol	706836	1.0104	0.8247
3	3.83	n-Propanol	856496	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011 Today's Time = 2:04:20 PM
Bound File Name = Sim091411.0016.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/14/2011 2:04:16 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

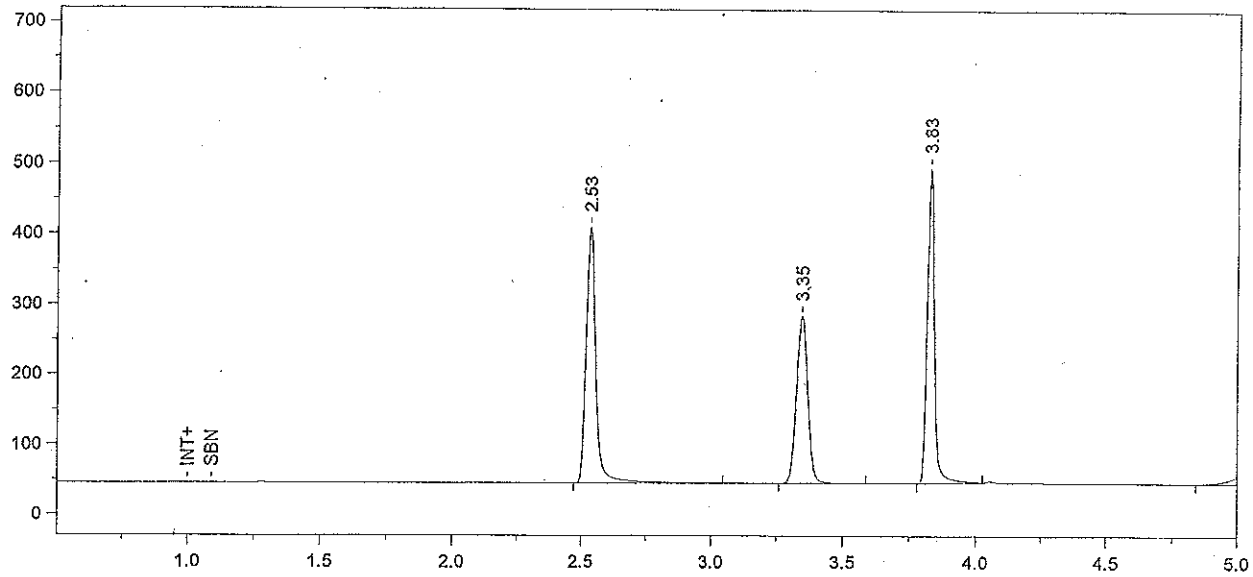
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.51	Ethanol	590087	0.1242	0.1014
2	3.33	t-Butanol	709253	1.0029	0.8186
3	3.82	n-Propanol	865775	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011
Today's Time = 2:19:25 PM
Bound File Name = Sim091411.0017.RAW
Sample Name = CCS C
Date Taken = 9/14/2011 2:19:18 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.52	Ethanol	939572	0.2039	0.1664
2	3.34	t-Butanol	685649	0.9994	0.8157
3	3.82	n-Propanol	839899	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/14/2011 Today's Time = 2:34:23 PM
Bound File Name = Sim091411.0018.RAW
Sample Name = CCS C
Date Taken = 9/14/2011 2:34:17 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 83

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	962995	0.2041	0.1666
2	3.35	t-Butanol	705279	1.0037	0.8192
3	3.83	n-Propanol	860277	1.0000	0.8162

File Name: C:\Methods\SimSolution.cal
Version: 93

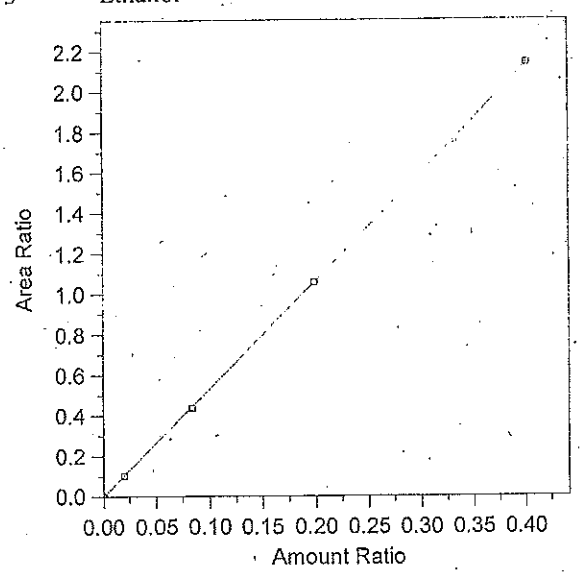
Creator:
Description:
Reason for change:

Internal standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 15000
Reference peak area reject threshold: 0
Amount units:
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

3 Ethanol



Expected retention time: 2.543 minutes
Search window: 0.1 minutes
Internal standard component: 7 (n-Propanol)
No retention time reference component
Group number: 0

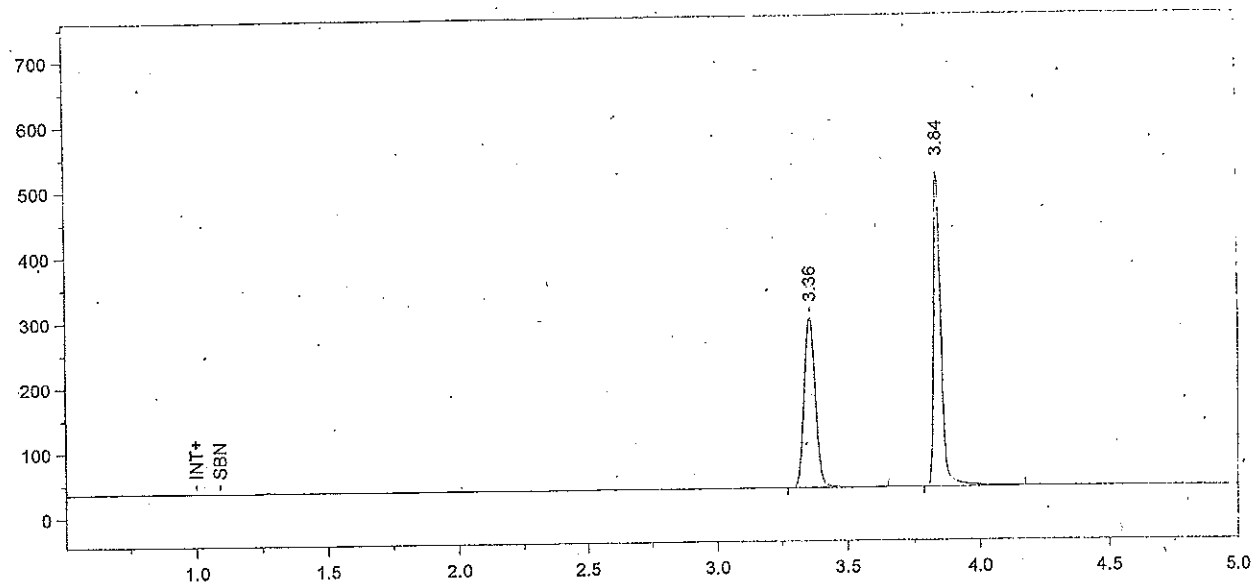
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 5.317838 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.999975
Average error: 0.794%
Average CF: 4.214874
RSD: 55.913%

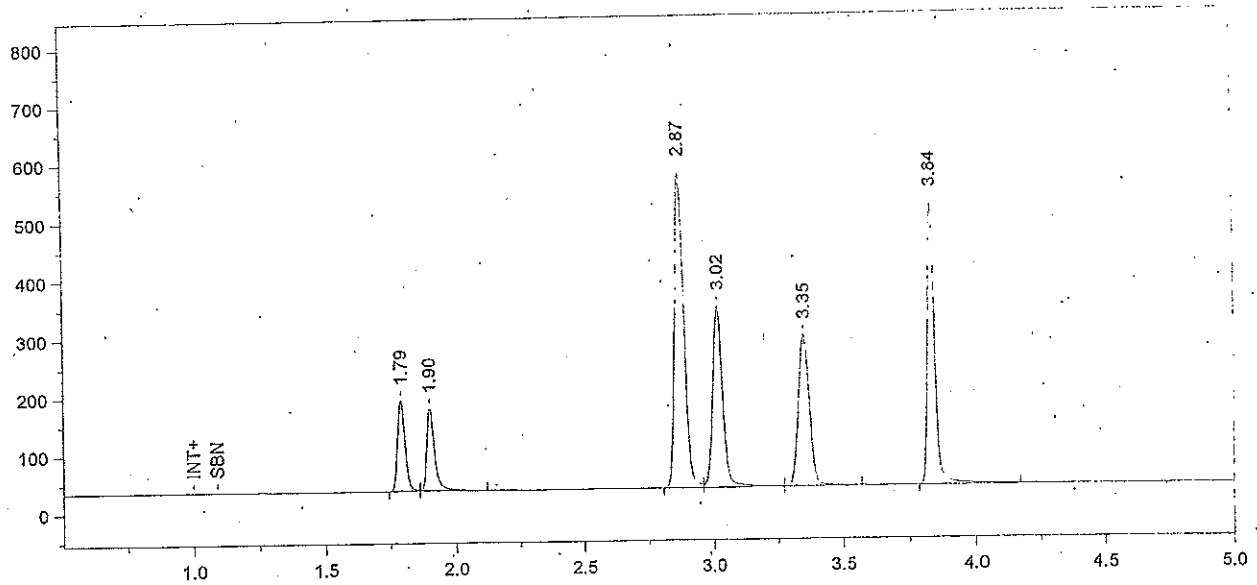
Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	0	(0)	--	0.000	0	0	Manual	4/11/2005 10:03:40 AM
2	0.02	95587.52	4779377	-1.884	0.02	0.1043533	C:\Alcohol Data\Sim092111\Sim092111.0003.BND	9/21/2011 2:14:27 PM
3	0.084	398338	4742119	-1.742	0.084	0.4389178	C:\Alcohol Data\Sim092111\Sim092111.0004.BND	9/21/2011 2:29:24 PM
4	0.199	936498.4	4706022	-0.211	0.199	1.056016	C:\Alcohol Data\Sim092111\Sim092111.0005.BND	9/21/2011 2:44:25 PM
5	0.402	1945818	4840343	0.132	0.402	2.140602	C:\Alcohol Data\Sim092111\Sim092111.0006.BND	9/21/2011 2:59:30 PM



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:02 PM
Bound File Name = Sim092111.0001.RAW
Sample Name = BLK
Date Taken = 9/21/2011 1:44:42 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

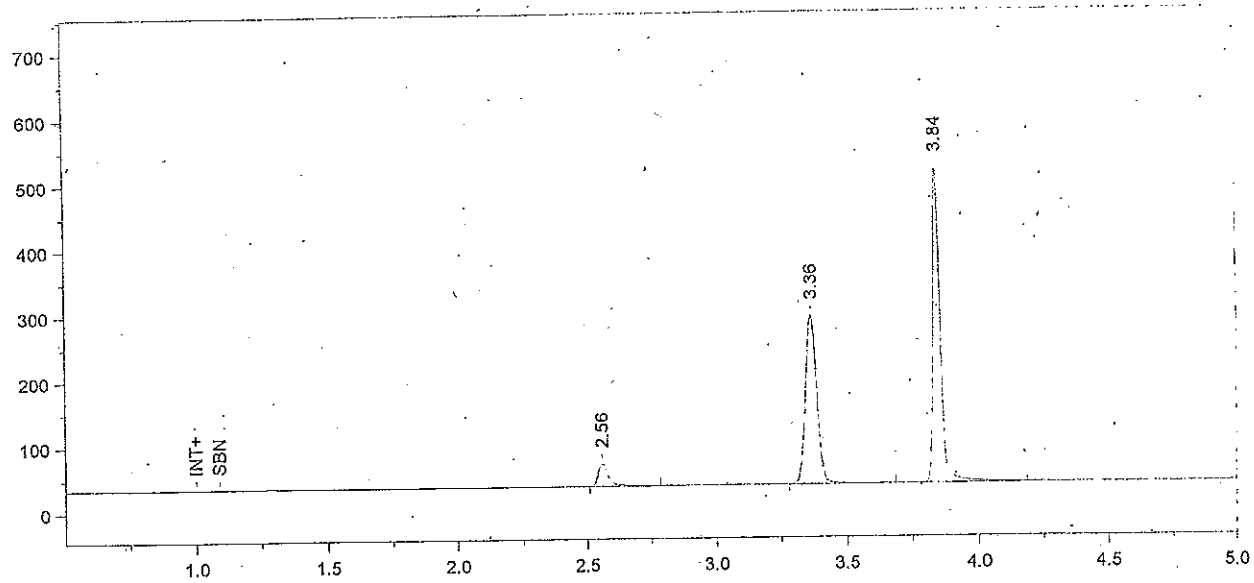
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	3.36	t-Butanol	772507	1.0002	0.8164
2	3.84	n-Propanol	931083	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:06 PM
Bound File Name = Sim092111.0002.RAW
Sample Name = TMX
Date Taken = 9/21/2011 1:59:13 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

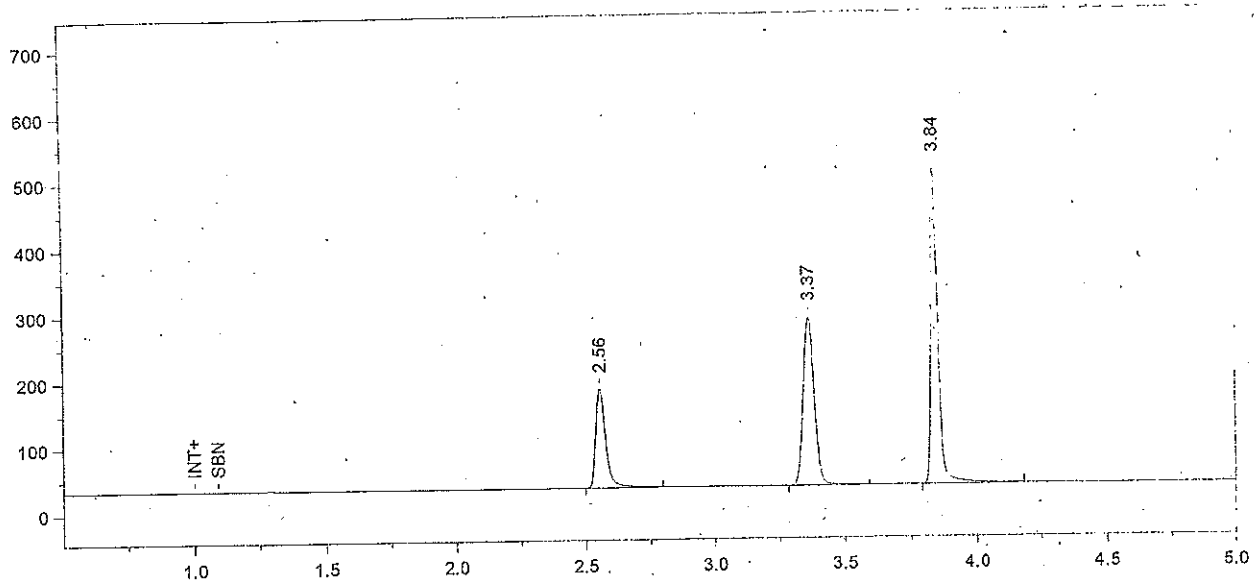
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	1.79	Acetaldehyde	304116	0.0510	0.0416
3	2.87	Acetone	1347534	0.0600	0.0490
4	3.02	Isopropanol	847549	0.0810	0.0661
5	3.35	t-Butanol	769437	0.9999	0.8161
6	3.84	n-Propanol	927713	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:09 PM
Bound File Name = Sim092111.0003.RAW
Sample Name = Std A
Date Taken = 9/21/2011 2:14:20 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.56	Ethanol	95588	0.0196	0.0160
2	3.36	t-Butanol	760334	1.0007	0.8168
3	3.84	n-Propanol	915999	1.0000	0.8162

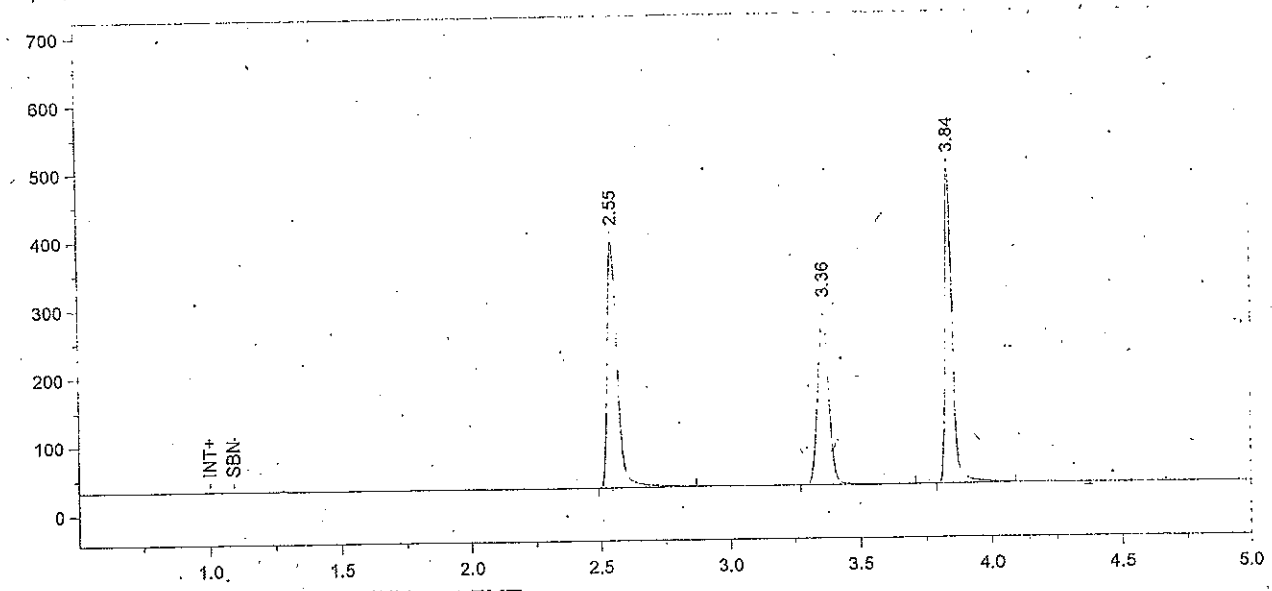


Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:13 PM
Bound File Name = Sim092111.0004.RAW
Sample Name = Std B
Date Taken = 9/21/2011 2:29:21 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.56	Ethanol	398338	0.0825	0.0674
2	3.37	t-Butanol	750471	0.9969	0.8137
3	3.84	n-Propanol	907546	1.0000	0.8162

Chrom Perfect Chromatogram Report

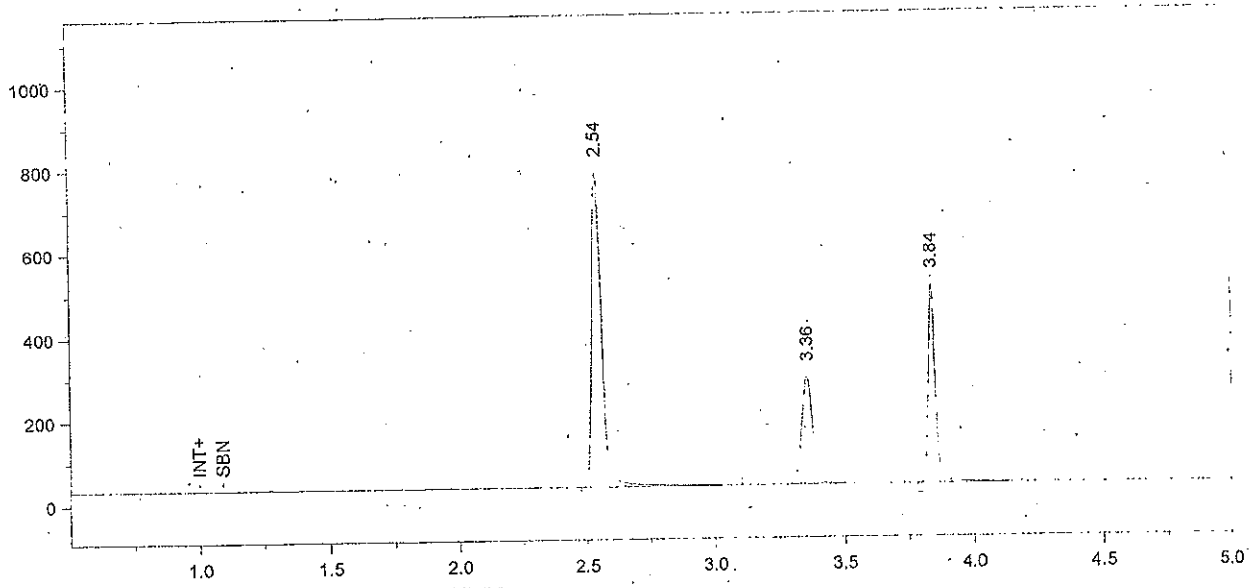


Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:17 PM
Bound File Name = Sim092111.0005.RAW
Sample Name = Std C
Date Taken = 9/21/2011 2:44:23 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	936498	0.1986	0.1621
2	3.36	t-Butanol	738559	1.0040	0.8195
3	3.84	n-Propanol	886822	1.0000	0.8162

Chrom Perfect Chromatogram Report

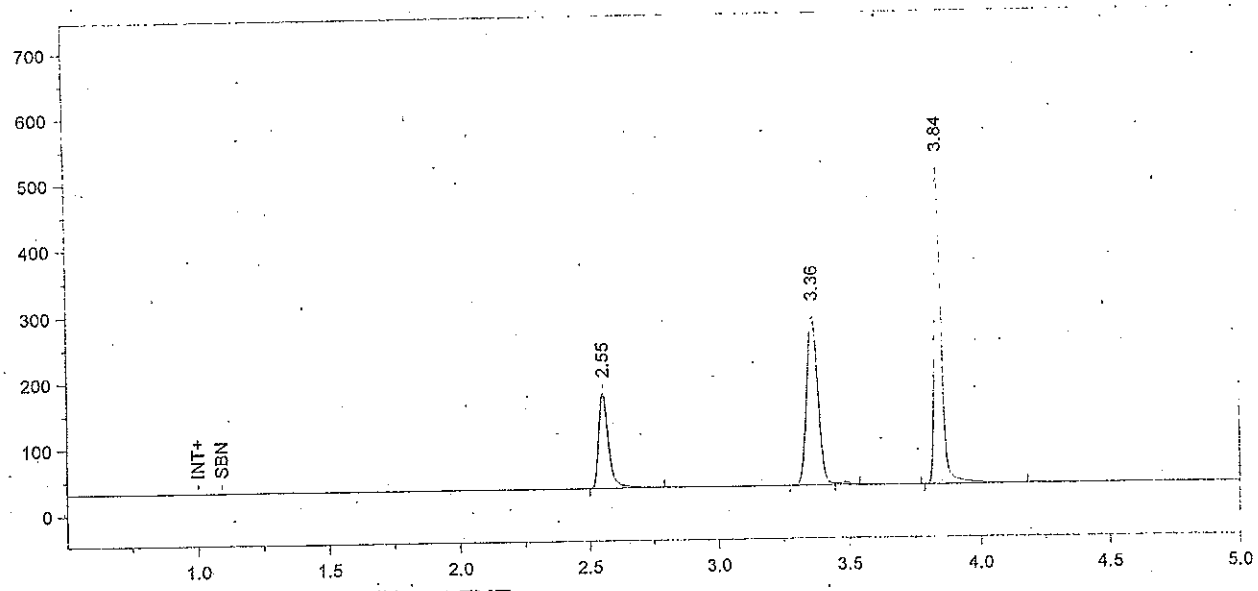


Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:21 PM
Bound File Name = Sim092111.0006.RAW
Sample Name = Std D
Date Taken = 9/21/2011 2:59:22 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	1945818	0.4025	0.3285
2	3.36	t-Butanol	752920	0.9985	0.8150
3	3.84	n-Propanol	909005	1.0000	0.8162

Chrom Perfect Chromatogram Report

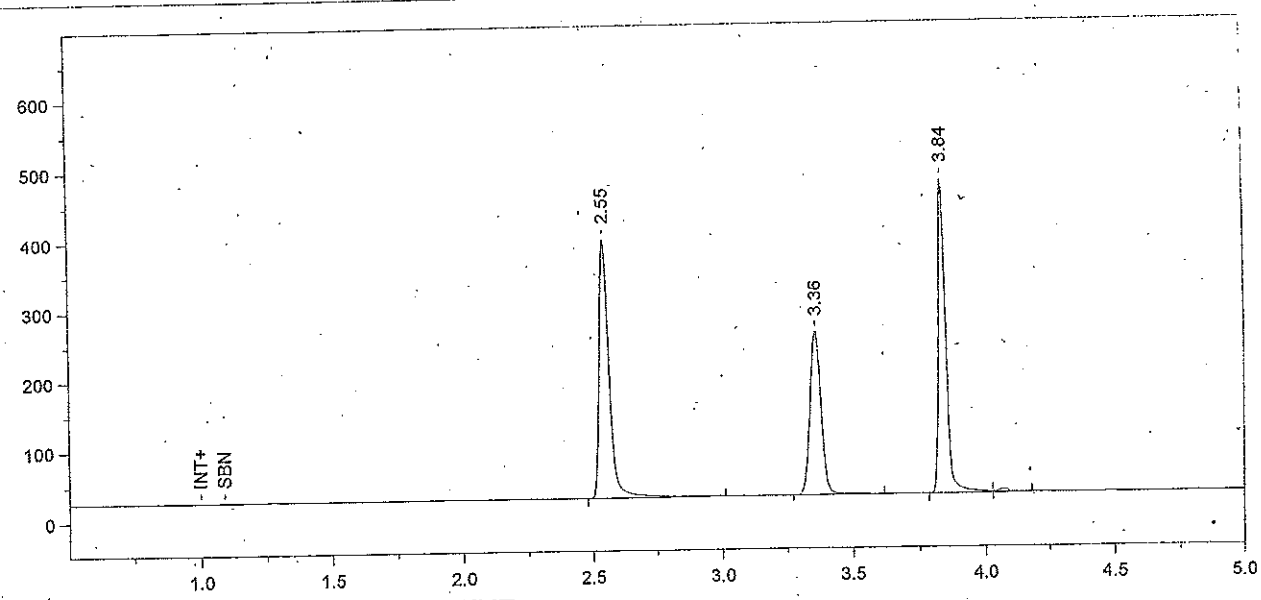


Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 3:30:26 PM
Bound File Name = Sim092111.0007.RAW
Sample Name = AQ QC
Date Taken = 9/21/2011 3:14:29 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	382150	0.0787	0.0642
2	3.36	t-Butanol	762006	1.0059	0.8210
4	3.84	n-Propanol	913226	1.0000	0.8162

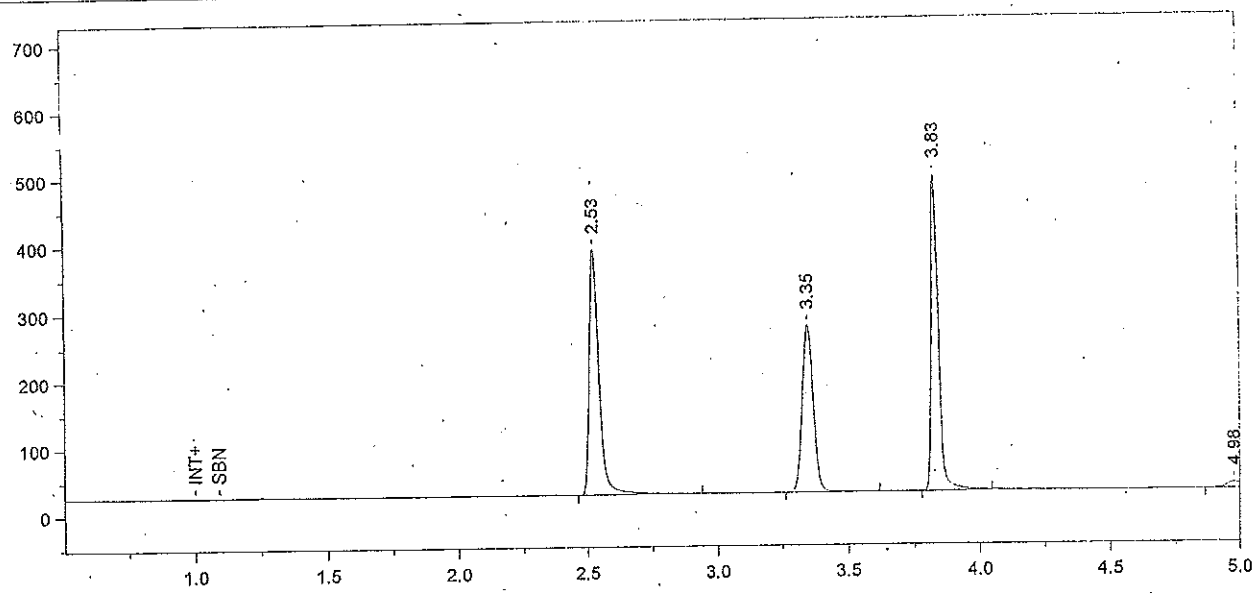
78.4%
9/27/11
9-27-11



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/21/2011
Today's Time = 11:52:07 PM
Bound File Name = Sim092111.0038.RAW
Sample Name = CCS C
Date Taken = 9/21/2011 11:52:00 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

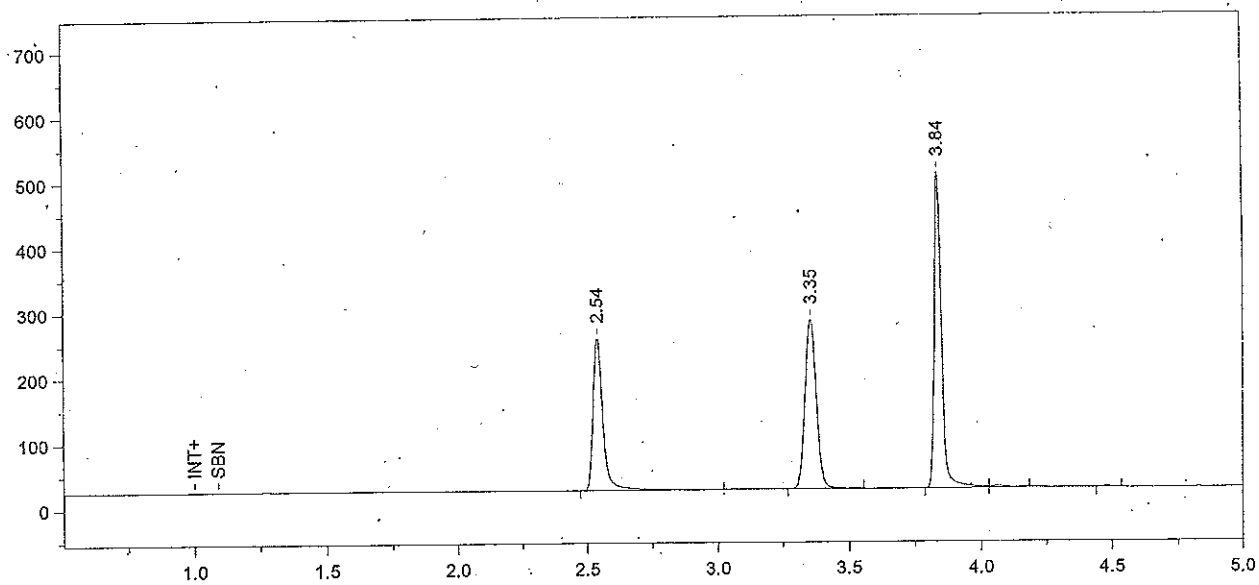
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	976187	0.2150	0.1755
2	3.36	t-Butanol	688100	0.9716	0.7930
3	3.84	n-Propanol	853791	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 12:07:02 AM
Bound File Name = Sim092111.0039.RAW
Sample Name = CCS C
Date Taken = 9/22/2011 12:07:01 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

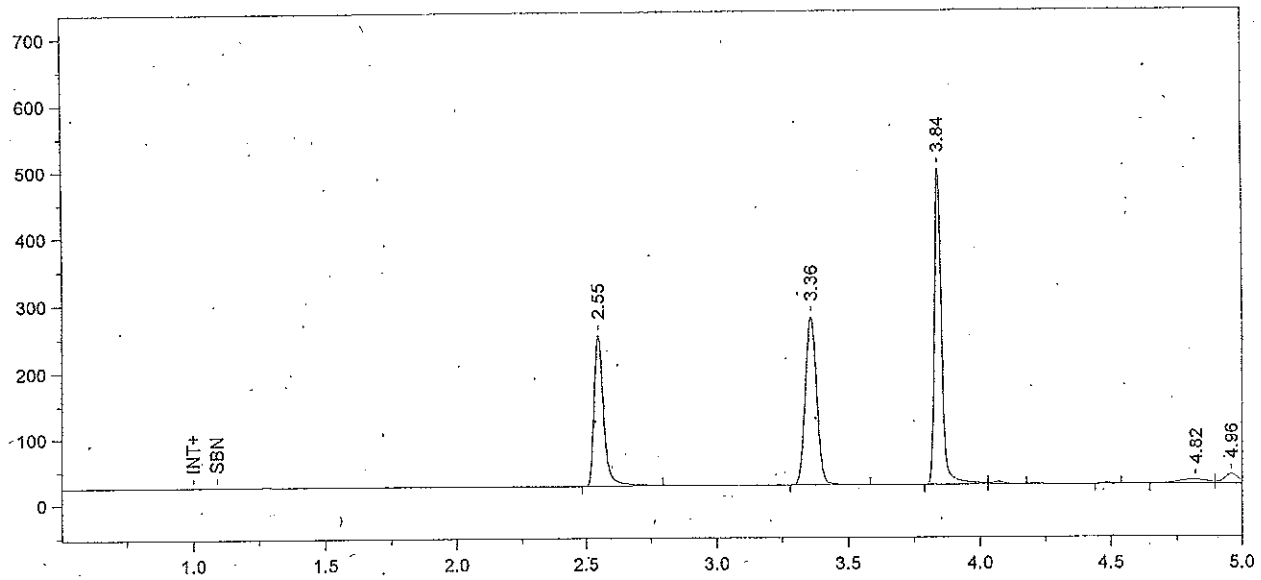
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	966907	0.2039	0.1664
2	3.35	t-Butanol	741767	1.0027	0.8184
3	3.83	n-Propanol	891835	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 12:21:57 AM
Bound File Name = Sim092111.0040.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 12:21:56 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

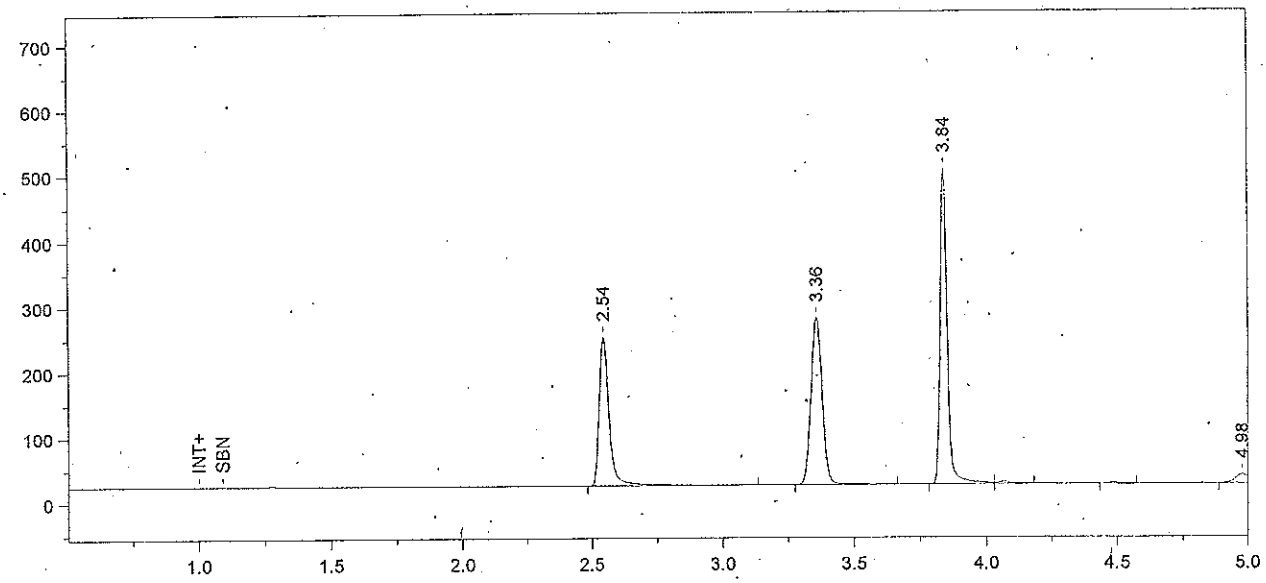
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	624131	0.1268	0.1035
2	3.35	t-Butanol	761088	0.9916	0.8094
3	3.84	n-Propanol	925265	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 12:37:04 AM
Bound File Name = Sim092111.0041.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 12:36:58 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

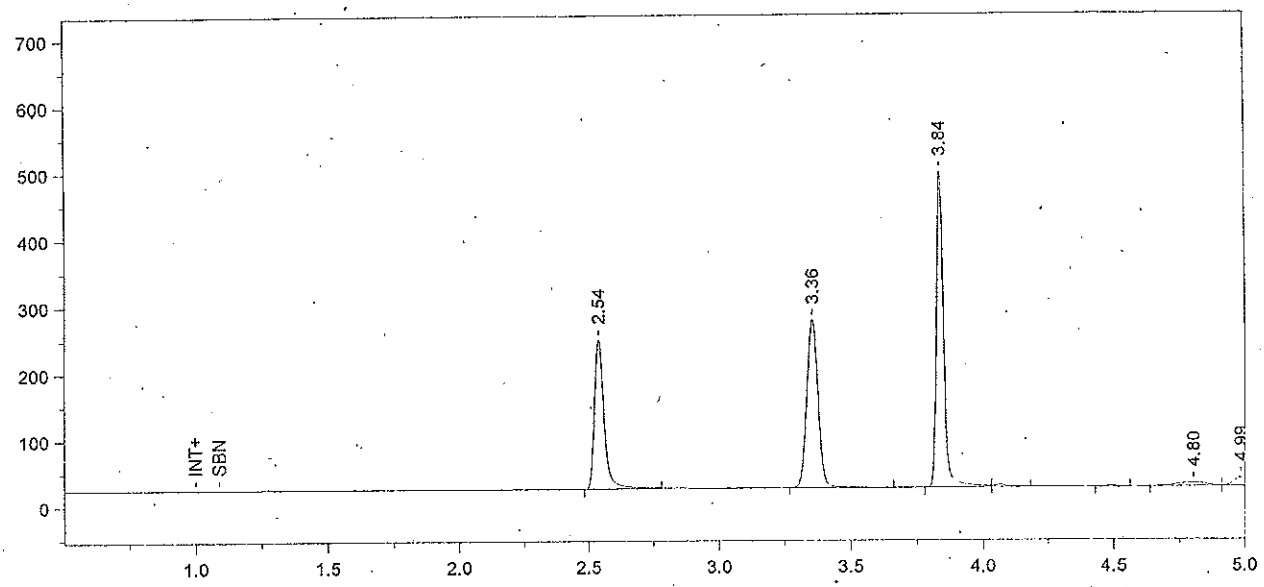
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	593247	0.1234	0.1007
2	3.36	t-Butanol	742275	0.9901	0.8081
3	3.84	n-Propanol	903824	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 12:52:03 AM
Bound File Name = Sim092111.0042.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 12:51:59 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

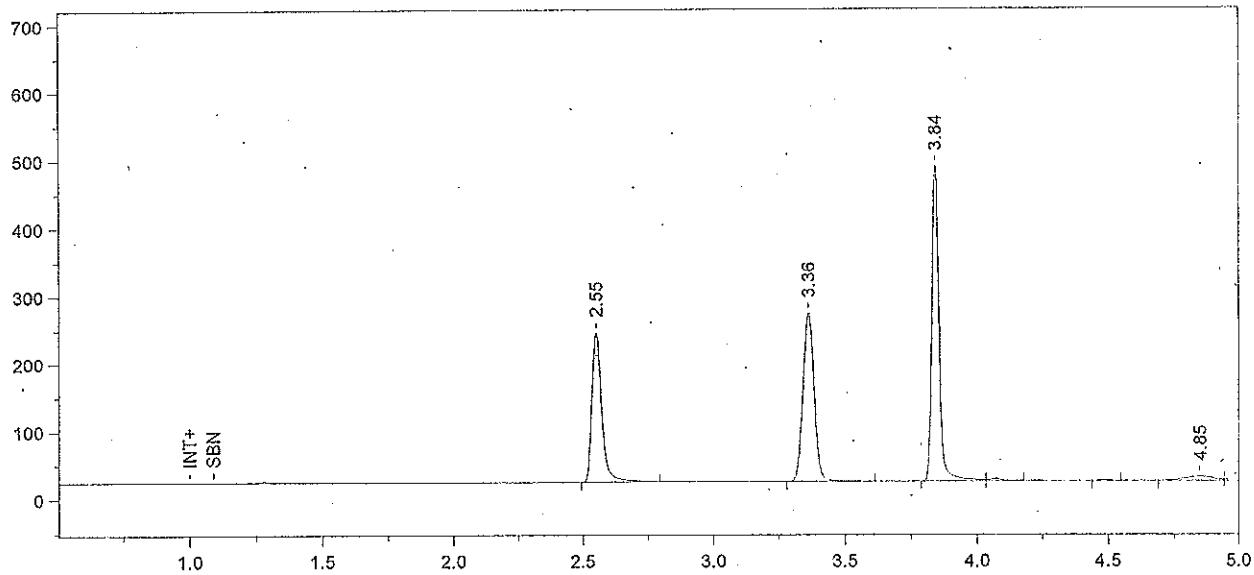
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	614600	0.1265	0.1032
2	3.36	t-Butanol	756317	0.9977	0.8143
3	3.84	n-Propanol	913908	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 1:07:04 AM
Bound File Name = Sim092111.0043.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 1:07:01 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

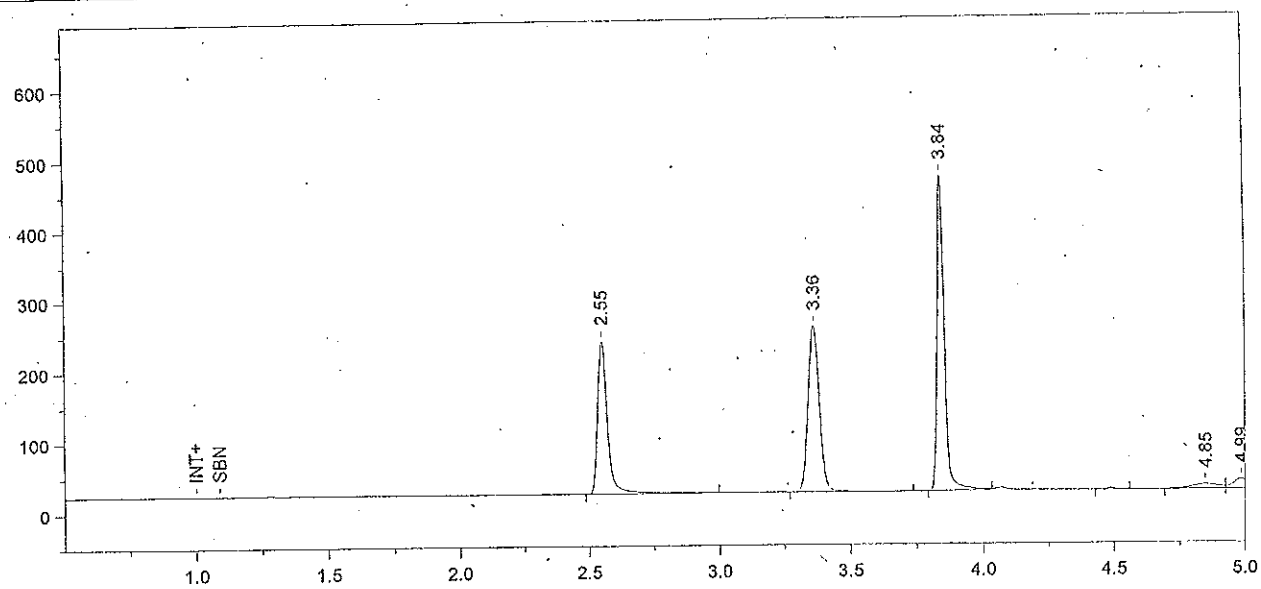
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	592304	0.1229	0.1003
2	3.36	t-Butanol	749330	0.9970	0.8138
3	3.84	n-Propanol	906035	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011 Today's Time = 1:22:07 AM
Bound File Name = Sim092111.0044.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 1:22:04 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 93

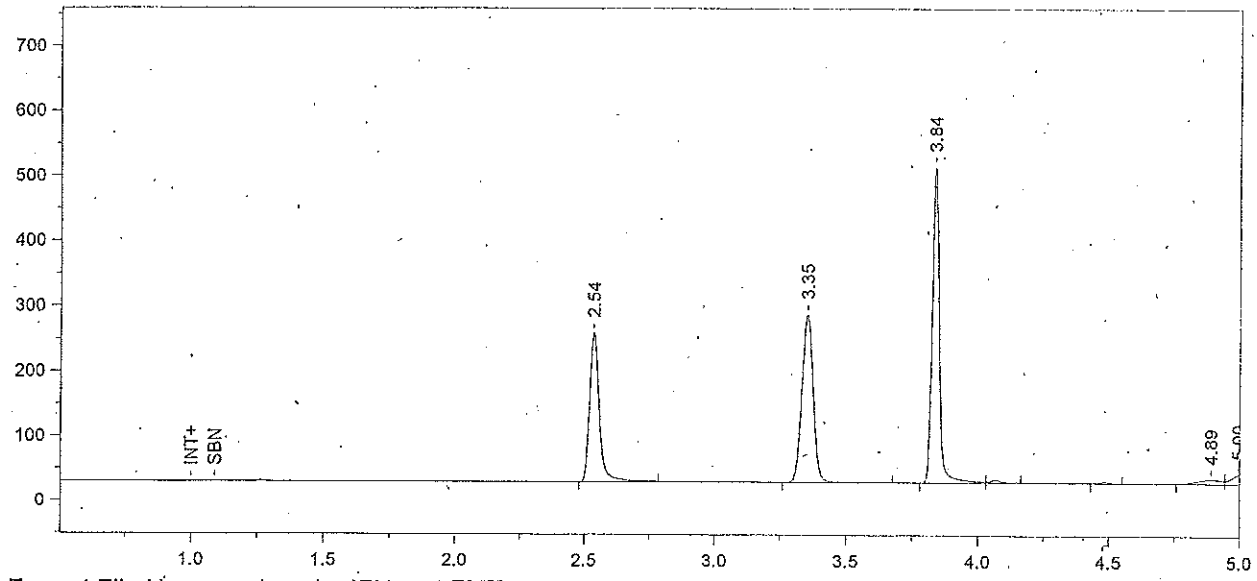
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	579906	0.1225	0.1000
2	3.36	t-Butanol	733896	0.9938	0.8111
3	3.84	n-Propanol	890294	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 1:37:10 AM
Bound File Name = Sim092111.0045.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 1:37:05 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

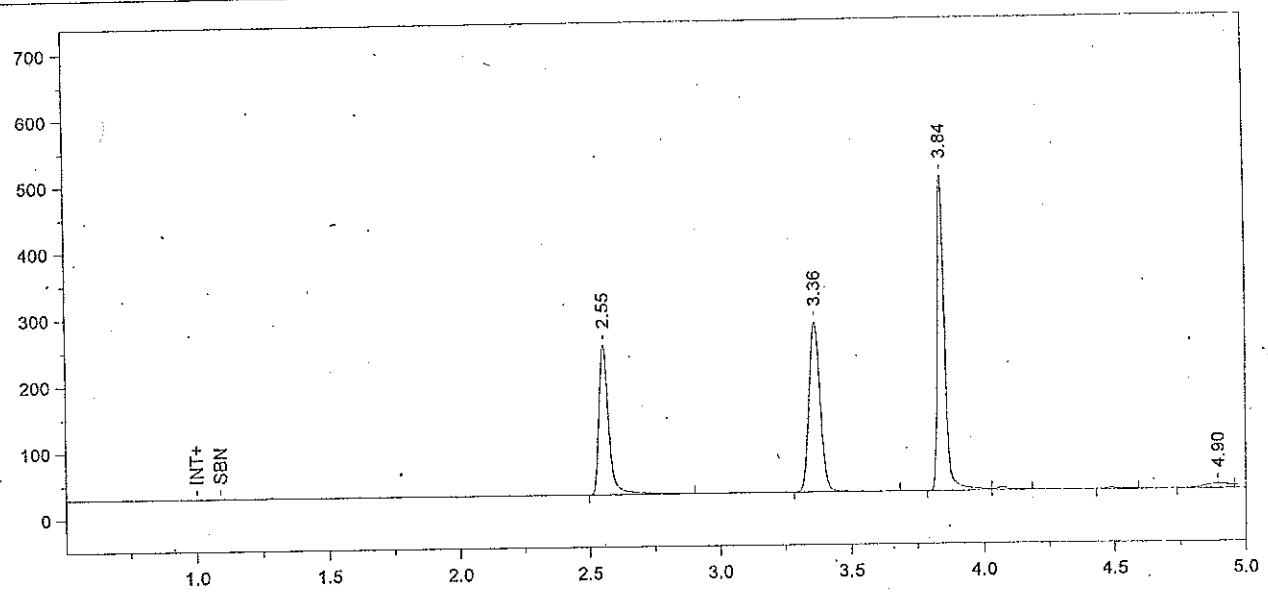
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	576918	0.1282	0.1046
2	3.36	t-Butanol	695987	0.9916	0.8094
3	3.84	n-Propanol	846143	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011 Today's Time = 1:52:09 AM
Bound File Name = Sim092111.0046.RAW
Sample Name = 0.1 Sim Sol - SRM
Date Taken = 9/22/2011 1:52:06 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 93

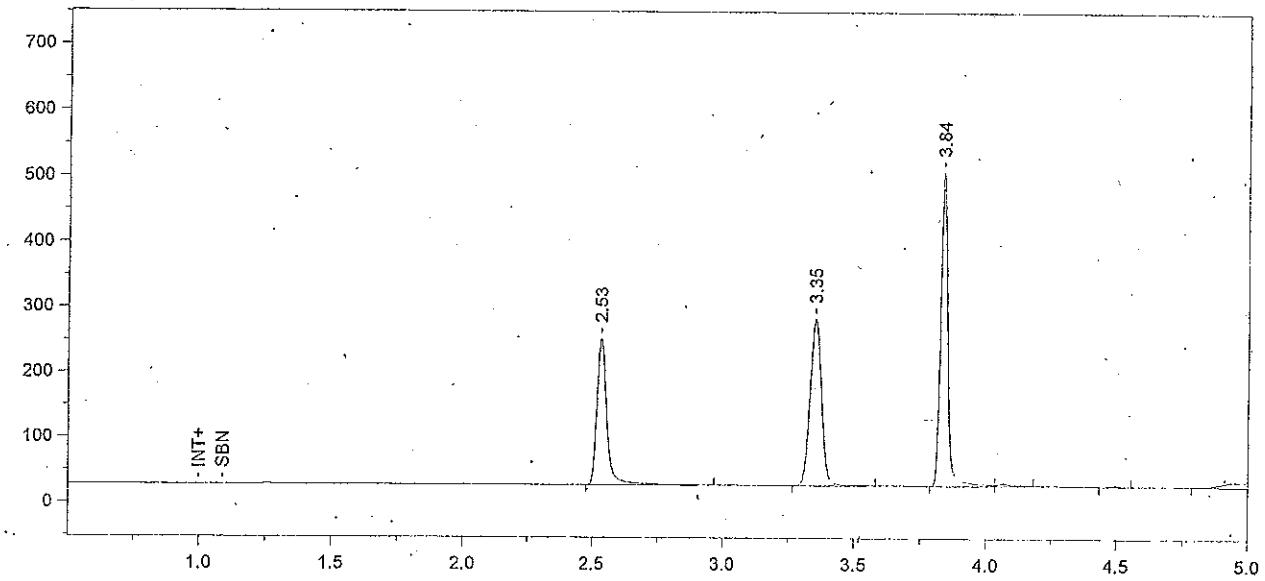
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	608294	0.1230	0.1004
2	3.35	t-Butanol	773246	1.0021	0.8179
3	3.84	n-Propanol	930201	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 2:07:14 AM
Bound File Name = Sim092111.0047.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 2:07:08 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

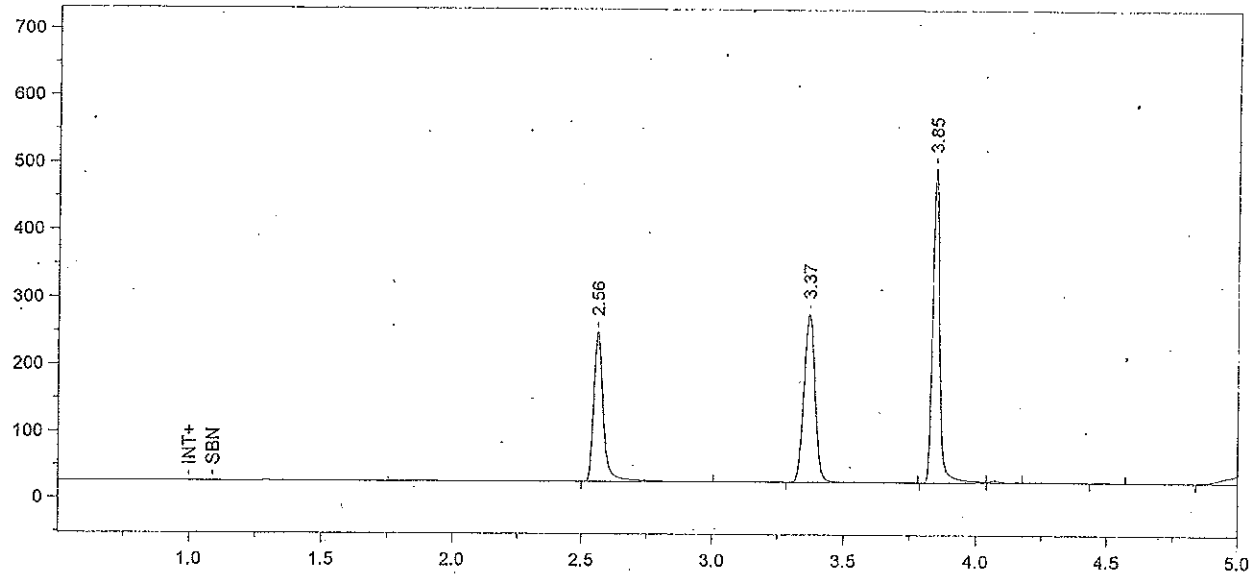
Peak Number	Ret Time (min)	Peak Name	Area	Amount %WT/VOL	Headspace Conversion
1	2.55	Ethanol	596159	0.1245	0.1016
2	3.36	t-Butanol	746676	0.9997	0.8160
3	3.84	n-Propanol	900405	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 2:22:11 AM
Bound File Name = Sim092111.0048.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 2:22:09 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

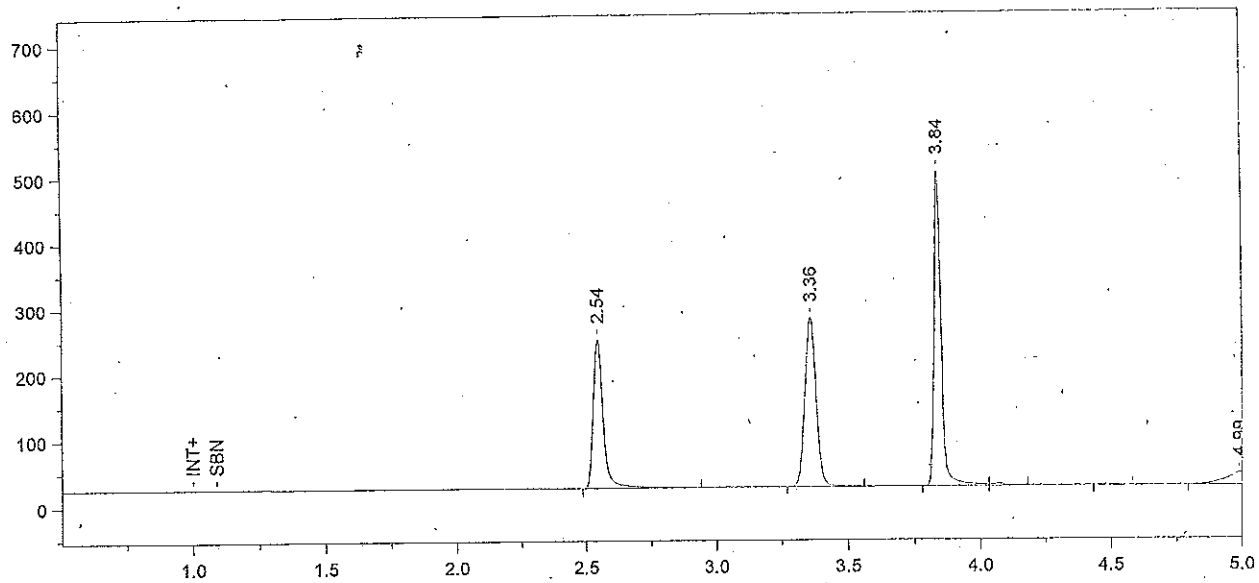
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	609976	0.1247	0.1018
2	3.35	t-Butanol	760416	0.9967	0.8135
3	3.84	n-Propanol	919750	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 2:37:10 AM
Bound File Name = Sim092111.0049.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 2:37:08 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

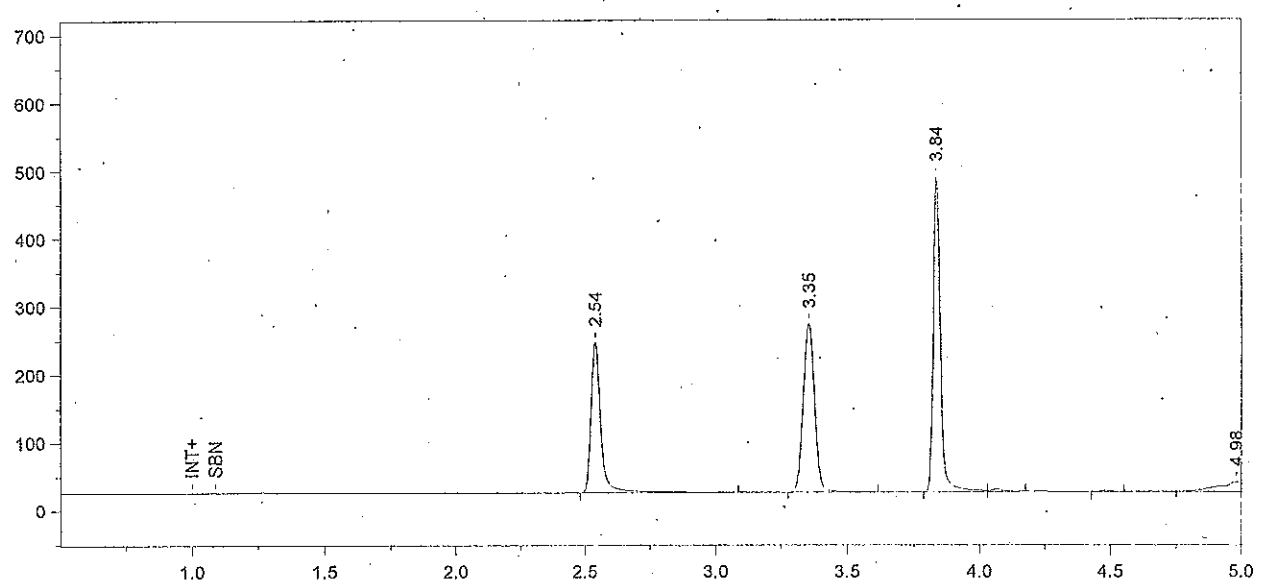
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.56	Ethanol	596462	0.1253	0.1023
2	3.37	t-Butanol	743483	1.0015	0.8174
3	3.85	n-Propanol	894955	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 2:52:19 AM
Bound File Name = Sim092111.0050.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 2:52:15 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

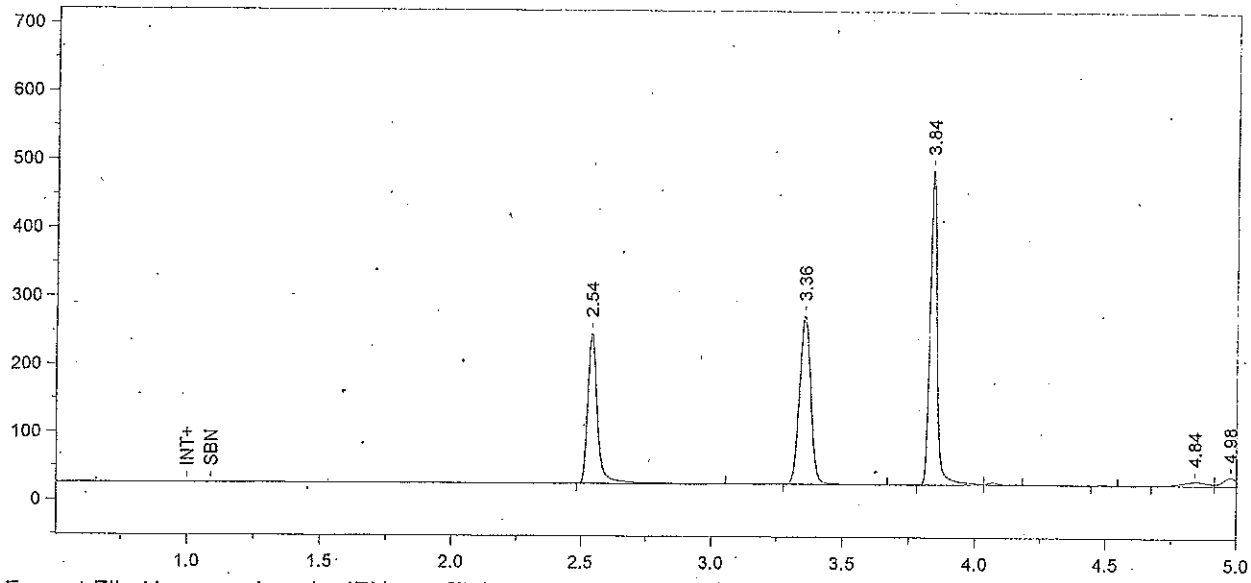
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	603688	0.1246	0.1017
2	3.36	t-Butanol	751793	0.9950	0.8121
3	3.84	n-Propanol	910883	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011 Today's Time = 3:07:20 AM
Bound File Name = Sim092111.0051.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 3:07:17 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 93

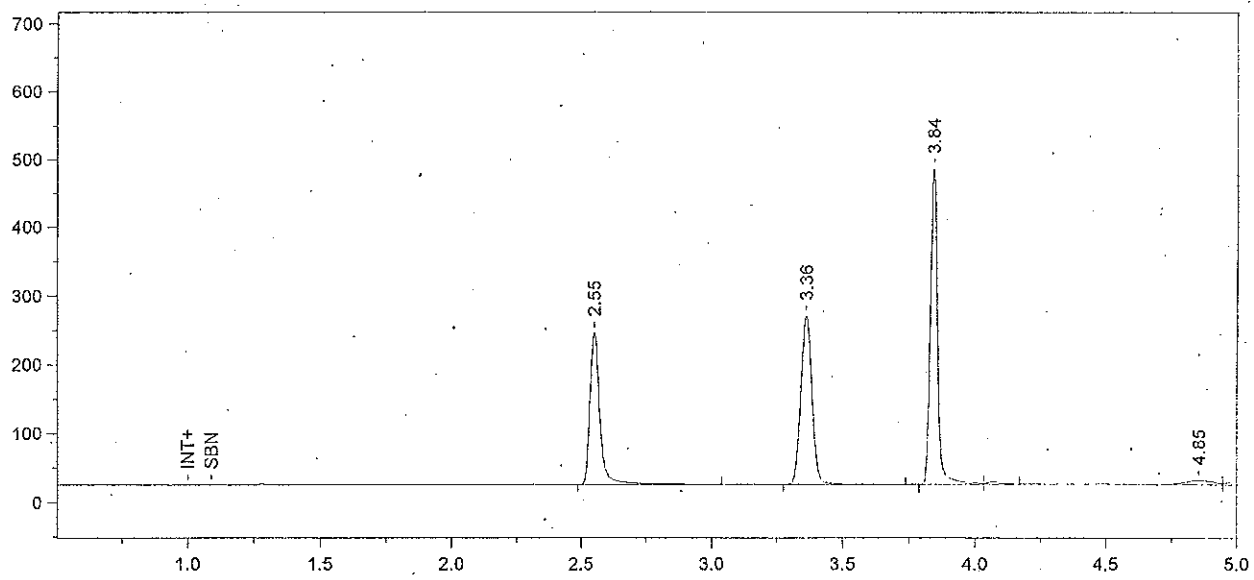
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	599339	0.1263	0.1031
2	3.35	t-Butanol	735637	0.9941	0.8114
3	3.84	n-Propanol	892097	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011
Today's Time = 3:22:15 AM
Bound File Name = Sim092111.0052.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 3:22:12 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal
Calibration Version = 93

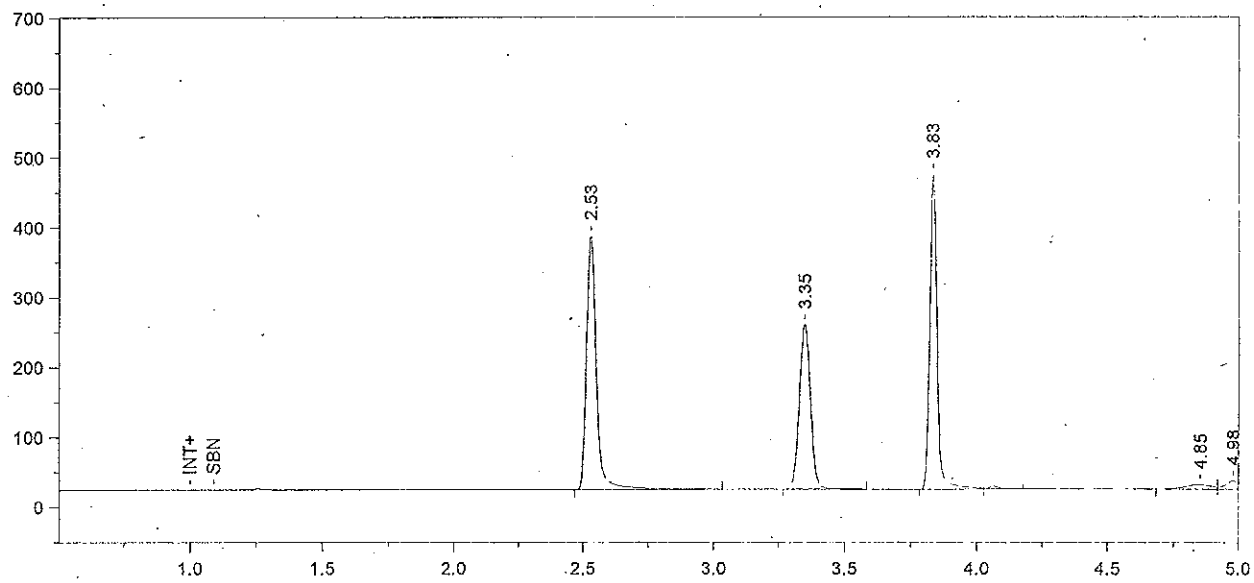
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.54	Ethanol	601207	0.1263	0.1031
2	3.36	t-Butanol	737895	0.9940	0.8113
3	3.84	n-Propanol	894967	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011 Today's Time = 3:37:16 AM
Bound File Name = Sim092111.0053.RAW
Sample Name = 0.1 Sim Sol - ALB
Date Taken = 9/22/2011 3:37:13 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 93

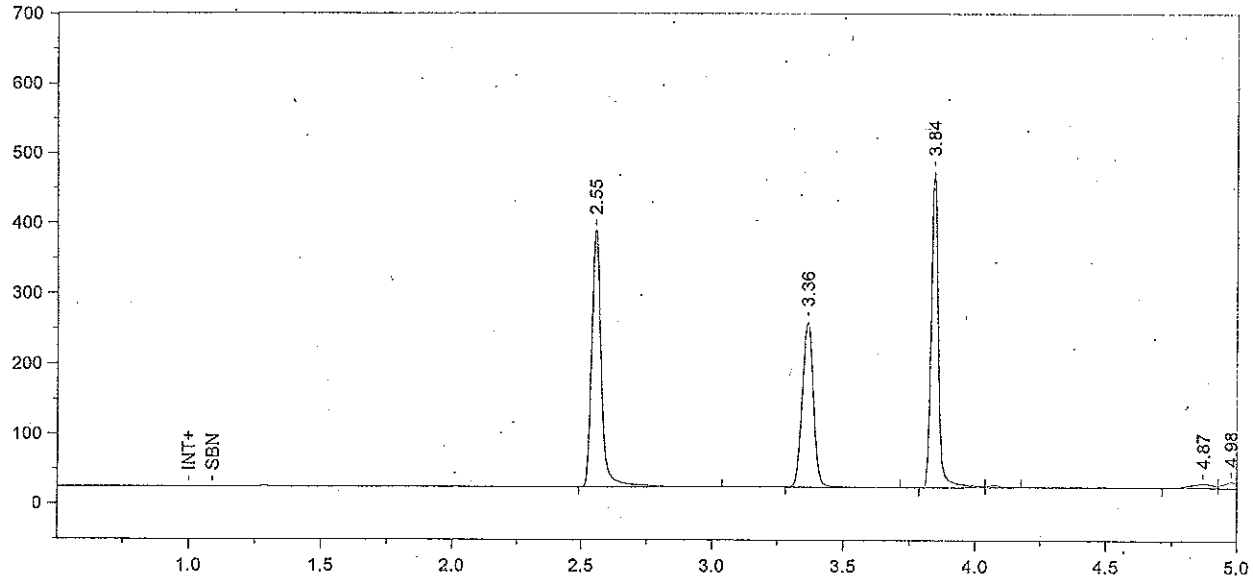
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	595616	0.1265	0.1033
2	3.36	t-Butanol	725260	0.9877	0.8062
3	3.84	n-Propanol	885220	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011 Today's Time = 3:52:17 AM
Bound File Name = Sim092111.0054.RAW
Sample Name = CCS C
Date Taken = 9/22/2011 3:52:15 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.53	Ethanol	964660	0.2097	0.1711
2	3.35	t-Butanol	698679	0.9736	0.7947
3	3.83	n-Propanol	865093	1.0000	0.8162



Format File Name = simsoln-JFH.met.FMT

Today's Date = 9/22/2011 Today's Time = 4:07:22 AM
Bound File Name = Sim092111.0055.RAW
Sample Name = CCS C
Date Taken = 9/22/2011 4:07:18 AM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = SimSolution.cal Calibration Version = 93

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
1	2.55	Ethanol	962522	0.2106	0.1719
2	3.36	t-Butanol	695091	0.9749	0.7957
3	3.84	n-Propanol	859555	1.0000	0.8162