

Certificate of Analysis No. : 1630548

Customer

BRAIMIOTIS - P. SCARLATOS Ltd
144, 3rd SEPTEMVRIOU
11251 ATHENS

Attn.: Mr GOROGIAS

Date of issue: 9/11/2016

Sample information

Sample kind :	Parts of Electronic cigarette
Sample identification :	Passthrough Battery (D-MPASS-161018-006) / P14-1 Clearomizer / OCC Coil Cylinder 1,6 Ohm (D-COCC-161018-006), prod/imp.: JFT Co, Ltd.1209, Seoulsoop SK-V1 Tower,5,Seongsuilro 8-gil, Seongdong-gu,Seoul, KOREA 04793
Received on :	31/10/2016 10:35:00 a.m.
Packaging :	---
Seals :	None
Temperature :	Ambient
Condition on receipt :	Normal

Sampling information

Sampling responsible :	Customer
Date :	---
Location :	---
Point :	---
Method :	---

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Analysis result

Date of analysis : 4/11/2016 – 8/11/2016

PARAMETER	METHOD	UNITS	RESULT	LIMITS
E-cigarette emission testing			.	
Emission protocol			.	
E-liquid			Reference A (AFNOR XP D 90-300-3)	
MOD			Passthrough Battery (D-MPASS-161018-006)	
Atomizer			P14-1 Clearomize	
Atomizer head/coil			OCC Coil Cylinder 1,6 Ohm (D-COCC-161018-006)	
Coil Composition			Cr20Ni80	
Battery type			li-ion	
Battery capacity		mAh	900	
Wattage		W	7,22	
Voltage		V	3,4	
Device Airflow		on/off	Full ON	
Puff duration		sec	3	
Puff interval (frequency)		sec	30	
Puffs per set		unit	20	
Set number		unit	5	
Puff number		unit	100	
Aspiration Airflow		l/min	1,1	
Puff volume		ml	55	
Vapor temperature at mouthpiece outlet		°C	<60	
Inclination angle of e-cigarette tank		°	45	
Emissions			.	
Nicotine 1st set	* GC/FID	mg / 100 puffs	7,7	
Nicotine 3rd set	* GC/FID	mg / 100 puffs	8,5	
Nicotine 5th set	* GC/FID	mg / 100 puffs	8,2	
Nicotine average		mg / 100 puffs	8,1	

The analysis results refer only to the items tested

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(*)Method out of the scope of accreditation

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Conclusion

The mass variability of the emitted nicotine is less than 25% for each measurement relative to the average value of the 3 measurements.

For
A. TSAKALIDIS Inc.

A. TSAKALIDIS
Managing Director

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APPENDIX A

SAMPLE'S PHOTOGRAPH

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APPENDIX B

CHROMATOGRAMS

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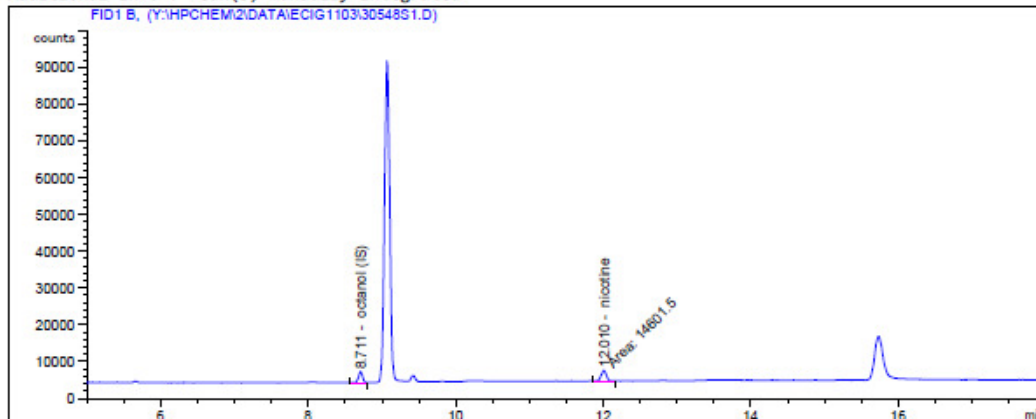
1. Nicotine in the first set

Data File Y:\HPCHEM\2\DATA\ECIG1103\30548S1.D
 Sample Name: 30548s1

```
=====
Acq. Operator   : Arkouli                      Seq. Line :   19
Acq. Instrument : Instrument 2                  Location  : Vial 19
Injection Date  : 4/11/2016 11:56:28 µµ        Inj       :    1
                                           Inj Volume: 1 µl

Acq. Method     : C:\HPCHEM\2\METHODS\ECIGAR.M
Last changed    : 28/10/2016 4:50:39 µµ by drillia
Analysis Method : C:\METHODS (PROS) FID\ECIGAR2.M
Last changed    : 10/11/2016 2:09:29 µµ
Method Info     : GC5 HP wax
=====
```

Additional Info : Peak(s) manually integrated



Area Percent Report

```
=====
Sorted By      : Signal
Calib. Data Modified : 10/11/2016 2:09:14 µµ
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Area %	Name
1	8.711	BV +	0.0800	1.07291e4	42.35629	octanol (IS)
2	12.010	MM +	0.0813	1.46015e4	57.64371	nicotine
3	12.557	+	0.0000	0.00000	0.00000	diethylen

Totals : 2.53306e4 100.0000

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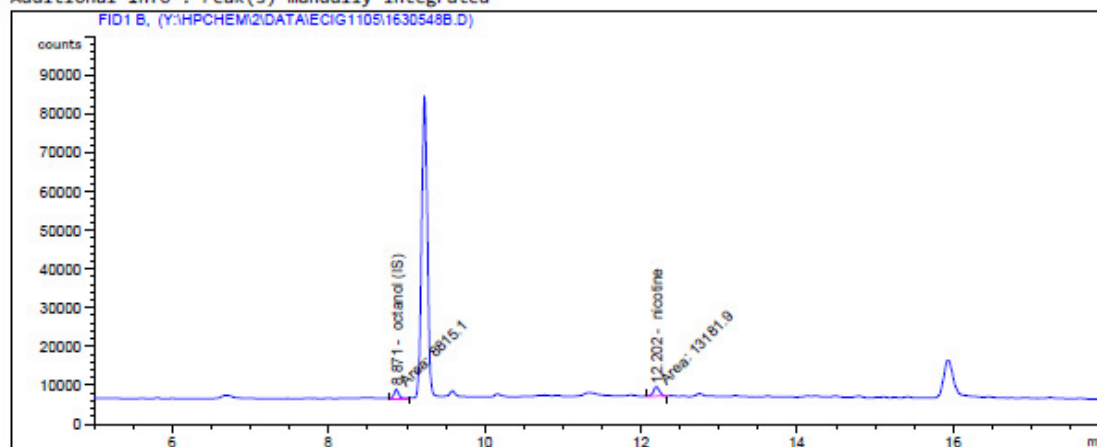
2. Nicotine in the third set

Data File Y:\HPCHEM\2\DATA\ECIG1105\16305488.D
Sample Name: 1630548b

```
=====
Acq. Operator   : Arkouli                      Seq. Line :    1
Acq. Instrument : Instrument 2                  Location  : Vial 16
Injection Date  : 8/11/2016 9:14:59 μm         Inj       :    1
                                           Inj Volume: 1 μl

Acq. Method     : C:\HPCHEM\2\METHODS\ECIGAR.M
Last changed    : 28/10/2016 4:50:39 μm by drillia
Analysis Method : C:\METHODS (PROS) FID\ECIGAR2.M
Last changed    : 10/11/2016 2:09:29 μm
Method Info     : GC5 HP wax
=====
```

Additional Info : Peak(s) manually integrated



Area Percent Report

```
=====
Sorted By      : Signal
Calib. Data Modified : 10/11/2016 2:09:14 μm
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Area %	Name
1	8.871	MM +	0.0665	8815.09766	40.07415	octanol (IS)
2	12.202	MM +	0.0879	1.31819e4	59.92585	nicotine
3	12.557	+	0.0000	0.00000	0.00000	diethylen
Totals :				2.19970e4	100.0000	

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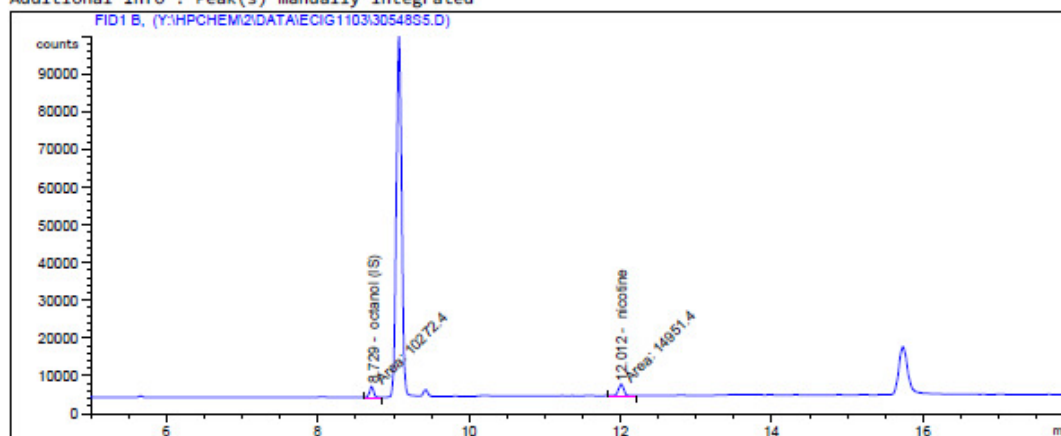
3. Nicotine in the fifth set

Data File Y:\HPCHEM\2\DATA\ECIG1103\30548S5.D
Sample Name: 30548s5

```
=====
Acq. Operator   : Arkouli                      Seq. Line : 21
Acq. Instrument : Instrument 2                  Location  : Vial 21
Injection Date  : 5/11/2016 12:51:32 μμ        Inj       : 1
                                           Inj Volume: 1 μl

Acq. Method     : C:\HPCHEM\2\METHODS\ECIGAR.M
Last changed    : 28/10/2016 4:50:39 μμ by drillia
Analysis Method : C:\METHODS (PROS) FID\ECIGAR2.M
Last changed    : 10/11/2016 2:09:29 μμ
Method Info     : GC5 HP wax
=====
```

Additional Info : Peak(s) manually integrated



Area Percent Report

```
=====
Sorted By      : Signal
Calib. Data Modified : 10/11/2016 2:09:14 μμ
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Area %	Name
1	8.729	MF +	0.0589	1.02724e4	40.72499	octanol (IS)
2	12.012	MM +	0.0821	1.49514e4	59.27501	nicotine
3	12.557	+	0.0000	0.00000	0.00000	diethylen
Totals :				2.52237e4	100.0000	

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APPENDIX C

ANALYTICAL METHODS DESCRIPTION

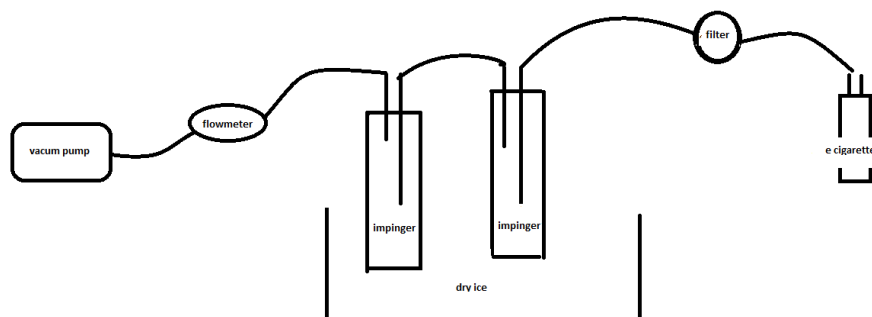
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TESTING OF CONSTANT EMISSION OF NICOTINE FROM ELECTRONIC CIGARETTE DEVICE

1. Vapor sampling

For the testing of constant emission of nicotine from electronic cigarette devices, a vaporization test using the reference liquid A is carried out (&5.2.4, AFNOR XP D90-300-3) according to the parameters defined in paragraphs 5.4.2 , 5.4.7 & 5.9 of AFNOR XP D90-300-3 (July 2016), and the concentration of nicotine which is emitted during the first, third and fifth period of puffs is determined.

For the collection of vapor, filters of 37 mm diameter and traps under cooling are used by the use of the following device.



The vapor is collected on filter which is followed by the traps that contain methanol and are cooled by dry ice.

- Each filter is extracted by methanol and nicotine is determined by gas chromatography and flame ionization detector.

2. Description of analytical methods

Determination of nicotine

Instrumentation

- Gas Chromatograph (GC) Hewlett Packard 5890
- Capillary column HP-INNOWAX with dimensions: length 30m x diameter 0.32mm x film thickness 0.25μ
- Injector split/splitless
- Detector FID
- Carrier gas helium

Experimental procedure

The filter is extracted by methanol using ultrasounds, followed by filtration of the extract. Using an appropriate aliquot of the extract, the internal standard 1-octanol is added. Then, analysis by GC/FID is followed and quantification of nicotine is done by the use of calibration curve, which is constructed by the analysis of four standards.