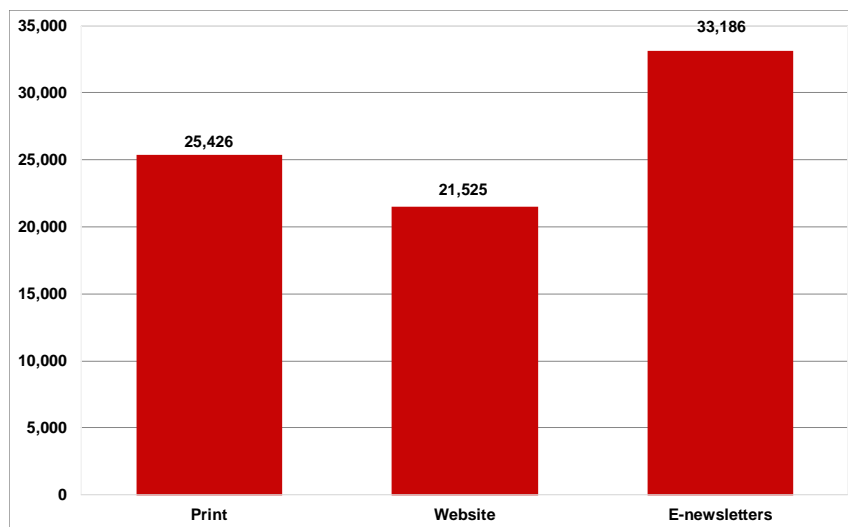


**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017

**TOTAL GROSS CONTACTS: 80,137\***



## EXECUTIVE SUMMARY

PRODUCT	CONTACTS	PERIOD
<b>Spectroscopy-Print:</b> (See pages 2 - 8)	Qualified Paid & Nonpaid:	<b>25,426</b> 6 months ended June 30, 2017 <i>Subject to Audit</i>
<b>Website</b> (See page 8) www.spectroscopyonline.com	Page Impressions:	<b>56,978</b> 6 months ended June 30, 2017 <i>Subject to Audit</i>
	Visits:	<b>26,164</b>
	Unique Browsers:	<b>21,525</b>

\*Total Gross Contacts include Qualified Paid and Nonpaid Circulation, Unique Browsers, and E-newsletters Average Issue Net Distribution.  
Gross data are contained in this Consolidated Media Report. There was no attempt made to eliminate any duplication that may exist.



**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017



## EXECUTIVE SUMMARY (Continued)

PRODUCT	CONTACTS	PERIOD
<b>E-newsletter</b> (See page 9) Wavelength	Average Net Distribution Per Issue: <b>17,647</b>	6 months ended June 30, 2017 (issues in period 12) <i>Subject to Audit</i>
<b>E-newsletter</b> (See page 9) e-Application Note Alert	Average Net Distribution Per Issue: <b>15,539</b>	6 months ended June 30, 2017 (issues in period 6) <i>Subject to Audit</i>

**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017



## CHANNEL PROFILES

**PRINT**



**Field Served:** Spectroscopy serves the fields of private industry, universities, colleges, government, hospitals, medical centers, research lab, institute, foundation, independent analytical labs, energy and others allied to the field.

**Published by:** UBM  
**Frequency:** 12 times/year

**TOTAL AVERAGE QUALIFIED PAID & NONPAID CIRCULATION** **25,426**

**1A AVERAGE QUALIFIED PAID CIRCULATION**  
Individual, See Explanatory ..... 24  
**Total Average Qualified Paid Circulation** ..... **24**

**1B AVERAGE QUALIFIED NONPAID CIRCULATION**  
Print Only, See Explanatory ..... 18,191  
Digital Only, See Explanatory ..... 7,210  
Total Individual ..... 25,401  
Multi-Copy Same Addressee, See Explanatory ..... 1  
**Total Average Qualified Nonpaid Circulation** ..... **25,402**

**1C AVERAGE NONQUALIFIED CIRCULATION**  
Allocated For Shows & Conventions ..... 154  
Miscellaneous, Including Staff Copies, See Explanatory ..... 413  
**Total Average Nonqualified Circulation** ..... **567**

**1D AVERAGE QUALIFIED PAID & NONPAID CIRCULATION OF REGIONAL AND DEMOGRAPHIC EDITIONS**  
None

**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017



## CHANNEL PROFILES

**PRINT**

**2**

### QUALIFIED PAID & NONPAID CIRCULATION BY ISSUES



2017 Issue	Total	Paid	Qualified Nonpaid Print Only	Qualified Nonpaid Digital Only	Qualified Nonpaid Print & Digital (Unduplicated)	Total Qualified Nonpaid
Jan	25,563	25	18,575	6,963		25,538
Feb	25,565	24	18,596	6,945		25,541
Mar	25,541	24	18,605	6,912		25,517
Apr	25,565	24	18,629	6,912		25,541
May	25,297	24	17,276	7,997		25,273
Jun	25,025	23	17,472	7,530		25,002

**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017

## CHANNEL PROFILES

**PRINT**

THE INFORMATION IN PARAGRAPHS 3A, 3B, 3C AND 4 IS FROM AN ANALYSIS OF THE MAY 2017 ISSUE IN WHICH:

- QUALIFIED PAID CIRCULATION WAS THE SAME AS THE PERIOD AVERAGE
- QUALIFIED NONPAID CIRCULATION WAS 0.5% LESS THAN THE PERIOD AVERAGE

### 3A

#### BUSINESS/OCCUPATIONAL ANALYSIS

Classification by Title, Occupation and/or Function

Classification by Business & Industry	Total	%	Paid	Qualified Nonpaid		Total	Classification by Title, Occupation and/or Function											
				Nonpaid Print	Qualified Digital		A	B	C	D	E	F	G	H	I	J	K	L
1. Private Industry .....	16,267	64.3	1	11,444	4,822	16,266	7,969	2,604	1,755	749	362	48	642	301	1,067	631	125	14
2. Universities, Colleges .....	3,829	15.1		2,356	1,473	3,829	1,926	38	78	339	46	1,259	91	15	16	10	6	5
3. Government .....	2,021	8.0		1,290	731	2,021	695	237	70	332	285	19	121	15	48	7	187	5
4. Research Labs, Institutes, Foundations .....	809	3.2		520	289	809	491	62	59	68	37	11	34	14	18	10	4	1
5. Independent Analytical Labs .....	662	2.6		456	206	662	139	85	63	157	107	2	46	11	23	18	10	1
6. Hospitals, Medical Centers .....	1,300	5.2		1,059	241	1,300	189	124	139	546	72	26	156	9	22	5	9	3
7. Energy .....	179	0.7		115	64	179	19	27	13	30	24	1	19	11	19	4	12	
Others Allied to the Field .....	207	0.8		36	171	207	4	1	1		1	2	4			1		193
Other Paid Circulation	23	0.1	23															23
Subscriptions .....																		
Single Copy Sales .....																		
<b>Total Qualified Circulation .....</b>	<b>25,297</b>	<b>100.0</b>	<b>24</b>	<b>17,276</b>	<b>7,997</b>	<b>25,273</b>	<b>11,432</b>	<b>3,178</b>	<b>2,178</b>	<b>2,221</b>	<b>934</b>	<b>1,368</b>	<b>1,113</b>	<b>376</b>	<b>1,213</b>	<b>686</b>	<b>353</b>	<b>245</b>
<b>Percent .....</b>	<b>100.0</b>						<b>45.2</b>	<b>12.5</b>	<b>8.6</b>	<b>8.8</b>	<b>3.7</b>	<b>5.4</b>	<b>4.4</b>	<b>1.5</b>	<b>4.8</b>	<b>2.7</b>	<b>1.4</b>	<b>1.0</b>

Key to Classification by Title, Occupation and/or Function:

- A. Research & Development
- B. Quality Control, Assurance Validation
- C. Corporate Management
- D. Lab Management
- E. Analysis
- F. Teaching
- G. Technical Services
- H. Engineering, Design
- I. Process Control, Manufacturing
- J. Marketing Sales
- K. Regulatory
- L. Other Functions Allied to the Field

**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017

## CHANNEL PROFILES

**PRINT**

**3B**

### AGE OF SOURCE DATA ANALYSIS



Source	Print Only	Digital Only	Print & Digital (Unduplicated)	Qualified Within			Total	%
				1 Year	2 Years	3 Years		
Qualified Paid & Nonpaid Circulation:								
Total Direct request from recipient:	15,276	6,422		17,137	4,561		21,698	85.8
Written .....	39	122		62	99		161	0.6
Telecommunication .....	14,209	4,913		15,386	3,736		19,122	75.6
Internet and E-mail .....	1,028	1,387		1,689	726		2,415	9.6
Total Direct request from recipient's company:								
Written .....								
Telecommunication .....								
Internet and E-mail .....								
Total Communication other than request:								
See Explanatory	3,599			3,599			3,599	14.2
Written .....	59			59			59	0.2
Telecommunication .....	2,585			2,585			2,585	10.2
Internet and E-mail .....	955			955			955	3.8
Association.....								
Business Directories .....								
Lists.....								
Acquired Circulation .....								
Other Sources.....								
Total Qualified Paid and Nonpaid Circulation .	18,875	6,422		20,736	4,561		25,297	100.0
Percent.....	74.6	25.4		82.0	18.0		100.0	
Single Copy Sales.....								
Total Qualified Circulation.....							25,297	

**3C**

### MAILING ADDRESS ANALYSIS

Reporting not required

**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017

## CHANNEL PROFILES

**PRINT**



### 4 GEOGRAPHIC ANALYSIS

State	Paid	Qualified Nonpaid Print Only	Qualified Nonpaid Digital Only	Qualified Nonpaid Print & Digital (Unduplicated)	Total Qualified Nonpaid	Total Circulation
Alabama	6	195	66		261	267
Arizona		159	80		239	239
Arkansas		130	45		175	175
California	2	1,816	778		2,594	2,596
Colorado		209	121		330	330
Connecticut		320	114		434	434
Delaware		140	55		195	195
District of Columbia		59	30		89	89
Florida		601	244		845	845
Georgia		359	171		530	530
Idaho		69	33		102	102
Illinois		935	338		1,273	1,273
Indiana		417	188		605	605
Iowa		187	95		282	282
Kansas		187	75		262	262
Kentucky		183	64		247	247
Louisiana	1	227	91		318	319
Maine		49	29		78	78
Maryland	1	473	231		704	705
Massachusetts		784	351		1,135	1,135
Michigan	1	479	223		702	703
Minnesota		364	156		520	520
Mississippi		124	39		163	163
Missouri	1	457	205		662	663
Montana		48	32		80	80
Nebraska		153	65		218	218
Nevada		56	33		89	89
New Hampshire		90	33		123	123
New Jersey	1	1,169	410		1,579	1,580
New Mexico		81	47		128	128
New York	1	964	430		1,394	1,395
North Carolina		593	248		841	841
North Dakota		48	26		74	74
Ohio		723	309		1,032	1,032
Oklahoma		135	62		197	197
Oregon		126	51		177	177
Pennsylvania	1	1,018	473		1,491	1,492
Rhode Island		55	29		84	84
South Carolina		211	98		309	309
South Dakota		59	19		78	78
Tennessee		377	113		490	490
Texas		1,127	478		1,605	1,605
Utah	1	153	68		221	222
Vermont		18	15		33	33
Virginia		300	153		453	453
Washington		259	115		374	374
West Virginia		79	43		122	122
Wisconsin		400	185		585	585
Wyoming		34	15		49	49
<b>TOTAL 48 CONTERMINOUS STATES</b>	<b>16</b>	<b>17,199</b>	<b>7,372</b>		<b>24,571</b>	<b>24,587</b>
Alaska		1	8		9	9
Hawaii		2	12		14	14
<b>TOTAL ALASKA &amp; HAWAII</b>		<b>3</b>	<b>20</b>		<b>23</b>	<b>23</b>
Single Copy Sales						
U.S. Unclassified						
<b>TOTAL UNITED STATES</b>	<b>16</b>	<b>17,202</b>	<b>7,392</b>		<b>24,594</b>	<b>24,610</b>
Poss. & Other Areas		40	29		69	69
<b>U.S. &amp; POSS., etc.</b>	<b>16</b>	<b>17,242</b>	<b>7,421</b>		<b>24,663</b>	<b>24,679</b>
Canada	1	19	59		78	79
International	7	15	517		532	539
Military or Civilian Personnel Overseas						
Other International						
<b>TOTAL INTERNATIONAL</b>	<b>8</b>	<b>34</b>	<b>576</b>		<b>610</b>	<b>618</b>
E-Mail Address Only						
Other Unclassified						
<b>GRAND TOTAL</b>	<b>24</b>	<b>17,276</b>	<b>7,997</b>		<b>25,273</b>	<b>25,297</b>



**CONSOLIDATED  
MEDIA REPORT**  
Business Publication  
6 months ended June 30, 2017

## CHANNEL PROFILES

**PRINT**

**ANALYSIS OF THE SALES OF TOTAL NEW AND RENEWAL SUBSCRIPTIONS**  
Sold During 6 Month Period Ended June 30, 2017



### 5 PRICE DATA

Basic Prices: Subscriptions: U.S., 1 yr. \$79.95; 2 yrs. \$144.00.  
Canada, 1 yr. \$102.00; 2 yrs. \$160.50. International 1 yr. \$150.00;  
2 yrs. \$268.00.  
Single Copy: \$18.00

### 6 TERM DATA Reporting not required

### 7 SALES CHANNELS Reporting not required

### 8 PREMIUM USAGE Reporting not required

## ADDITIONAL CIRCULATION INFORMATION

### 9 POST EXPIRATION COPIES INCLUDED IN PAID CIRCULATION

Reporting not required

### 10 RENEWAL ANALYSIS OF PAID CIRCULATION

Reporting not required

**WEBSITE**

[www.spectroscopyonline.com](http://www.spectroscopyonline.com)

6 MONTHS ENDED JUNE 30, 2017	Page Impressions	Visits	Unique Browsers
January	50,753	20,840	16,719
February	53,154	24,200	19,946
March	66,292	31,401	25,453
April	57,118	28,060	22,252
May	59,786	27,627	22,025
June	54,763	24,858	19,758



## CHANNEL PROFILES

### E-NEWSLETTERS

E-NEWSLETTER	Number of Issues	Average Net Distribution Per Issue
Wavelength		
January 2017	2	17,807
February 2017	2	18,554
March 2017	2	18,295
April 2017	2	17,418
May 2017	2	17,145
June 2017	2	16,660

E-NEWSLETTER	Number of Issues	Average Net Distribution Per Issue
e-Application Note Alert		
January 2017	1	15,942
February 2017	1	15,905
March 2017	1	15,762
April 2017	1	15,640
May 2017	1	15,409
June 2017	1	14,576

## EXPLANATORY

**Publication:**

Audit Cycle: December Ending.

(a) Print Only Individual subscriptions, averaging 24 paid copies per issue and 18,191 qualified nonpaid copies per issue, represent copies served to individuals receiving the print version only of SPECTROSCOPY.

(b) Digital Only Individual subscriptions, averaging 7,210 qualified nonpaid copies per issue, represent copies served to individuals receiving the digital version only. The digital version of SPECTROSCOPY is made available to subscribers through a password secure website wherein an e-mail notice is sent to recipients notifying them of the availability of each issue.

(c) Multi-Copy Same Addressee subscriptions, averaging 1 copy per issue, represent copies sold in quantities of 2 or more to individuals at prices shown in Par. 5. Copies were mailed to the purchasers for redistribution.

(d) Miscellaneous includes checking and promotion copies, averaging 413 copies per issue, served to advertisers and agencies.

(e) Communication other than request represents copies obtained from sister publications.

**Definition of Recipient Qualification:**

Qualified recipients are: personnel engaged in the job functions of research and development, quality control, assurance, validation; process control, manufacturing, engineering, design, technical services, lab management, analysis, teaching, corporate management, regulatory, marketing, sales and other functions allied to the field.

**CONSOLIDATED  
MEDIA REPORT**  
**Business Publication**  
**6 months ended June 30, 2017**

## EXPLANATORY (Continued)

### Website:

#### AAM Digital Services Definitions:

Domains included in website traffic: [www.spectroscopyonline.com](http://www.spectroscopyonline.com).

This site uses the cookie-based method to measure unique browsers. If cookies are not accepted, then the IP address & user-agent in combination based method is used to measure unique browsers.

Note: The total number of unique browsers is adjusted to remove duplicate visits by the same browser. In other words, regardless of the number of times that an identified browser visited the site, they were considered a single unique browser for the period.

#### Website Usage Definitions:

**Page Impressions:** The combination of one or more files presented to a browser as a single document as a result of a single request received by the server, and that is recorded at a point as late as possible in the process of delivery of the content to the user's browser, therefore closest to the actual opportunity to see the content by the user. In effect, one request by a browser should result in one page impression being reported. The counted page impression may not necessarily be in focus or visible in the user's browser.

**Unique Browser:** A measurement of unduplicated cookie browsers that accessed the digital content of a site during the measurement period reported. In the absence of a cookie, the combination of the IP address and user-agent string may be used to measure a unique browser. For numerous reasons, a unique browser does not represent a unique individual.

**Visit:** A series of interactions with a site by a unique browser or user (if registration-based or a panel participant) without 30 minutes of inactivity.

### E-newsletters:

**Net Distribution:** The number of e-newsletters for a given mailing that reached the subscriber's email delivery server with a positive status code response received in return. Net distribution is calculated by subtracting undelivered messages from sent messages.

**We certify that to the best of our knowledge all data set forth in this Publisher's Statement are true and report circulation in accordance with Alliance for Audited Media's Bylaws and Rules.**

Parent Company: UBM

**CHRISTINE SHAPPELL**

Audience Development Director

**JOY PUZZO**

VP Marketing Audience Development

**Format:** Standard

**Established:** 1985

**AAM Member Since:** 2015

**Member No.** 06-1222-5

**SRDS:** 132A

**Published by:**

UBM

485F US Highway 1S, Ste. 210

Iselin, NJ 08830

T: (732) 346-3027

[www.spectroscopyonline.com](http://www.spectroscopyonline.com)

Publisher: Mike Tessalone

Editor: Laura Bush

06-1222-5	Analyzed Issue Date	05/01/17
	Analyzed Issue Text (for double month issue date)	
	Single Copy Price	18.00
	Association Subscription Price	
	U.S. Subscription Price	79.95
	Canadian Subscription Price	102.00
	International Subscription Price	150.00