



## Technology Services Reports

# Analysis of the Journal of Research of the National Institute of Standards and Technology

## Update of Tables and Appendices

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**Table 2.1: Journal of Research Subject Category Ranking and Impact Factor, 1991-2004**

<b>Year</b>	<b>Impact Factor</b>	<b>Rank with ISI Subject Category</b>
1991	0.414	11 out of 66 (Engineering) <i>20 out of 42 (Instruments and Instrumentation)</i>
1992	0.753	4 out of 68 (Engineering) <i>12 out of 39 (Instruments and Instrumentation)</i>
1993	0.328	13 out of 45 (Engineering) <i>19 out of 35 (Instruments and Instrumentation)</i>
1994	0.732	4 out of 44 (Engineering) <i>11 out of 35 (Instruments and Instrumentation)</i>
1995	0.778	3 out of 49 (Engineering) <i>9 out of 38 (Instruments and Instrumentation)</i>
1996	0.613	7 out of 53 (Engineering) <i>13 out of 38 (Instruments and Instrumentation)</i>
1997	1.187	1 out of 56 (Engineering) 12 out of 56 (Multidisciplinary Sciences) <i>7 out of 47 (Instruments and Instrumentation)</i>
1998	1.889	1 out of 59 (Engineering) 7 out of 62 (Multidisciplinary Sciences) <i>3 out of 53 (Instruments and Instrumentation)</i>
1999	2.400	1 out of 60 (Engineering) 4 out of 51 (Multidisciplinary Sciences) <i>1 out of 53 (Instruments and Instrumentation)</i>
2000	1.611	1 out of 58 (Engineering, Multidisciplinary ) 6 out of 49 (Multidisciplinary Sciences) <i>2 out of 53 (Instruments and Instrumentation)</i>
2001	0.605	13 out of 58 (Engineering, Multidisciplinary) 17 out of 45 (Multidisciplinary Sciences) <i>21 out of 49 (Instruments and Instrumentation)</i>
2002	0.766	10 out of 61 (Engineering, Multidisciplinary) 14 out of 48 (Multidisciplinary Sciences) <i>19 out of 53 (Instruments and Instrumentation)</i>
2003	0.580	18 out of 61 (Engineering, Multidisciplinary) 19 out of 46 (Multidisciplinary Sciences) <i>28 out of 50 (Instruments and Instrumentation)</i>
2004	1.123	6 out of 61 (Engineering Multidisciplinary) 10 out of 45 (Multidisciplinary Sciences) 13 out of 48 (Instruments and Instrumentation)

\* Prior to 2004, the Journal of Research was not included in the Instruments and Instrumentation Subject Category. The ranking for this category for the years prior to 2004 is shown in *italics*.

**Table 2.2: Impact Factor Comparison, 1998-2004**

Journal	Impact Factors						
	1998	1999	2000	2001	2002	2003	2004
<b>NIST Journals</b>							
Journal of Research of the National Institute of Standards and Technology	1.889	2.400	1.611	0.605	0.766	0.580	1.123
Journal of Physical and Chemical Reference Data	6.229	9.892	8.756	4.488	3.333	4.000	4.788
<b>Journals of other research institutions</b>							
PTB-Mitteilungen (Germany)	0.130	0.200	0.074	-	0.050	0.029	-
Johns Hopkins APL Technical Digest	0.174	0.230	0.232	0.556	0.310	0.099	0.089
IBM Journal of Research and Development	0.930	1.425	1.944	2.560	3.700	3.606	2.266
Bell Labs Technical Journal	0.329	0.779	1.048	1.175	0.694	0.673	0.500
<b>Other measurement journals</b>							
Measurement (Elsevier)	-	-	-	-	0.486	0.434	0.451
Measurement Science and Technology (IoP)	0.659	0.857	0.796	0.859	0.845	0.822	1.118
Metrologia (IoP, BIPM)	0.420	1.055	0.820	0.945	0.842	0.983	1.314
Review of Scientific Instruments	1.177	1.293	1.239	1.352	1.437	1.343	1.226

**Table 2.4: Top Ten Most Frequently Cited Articles Published Since 1934, For the Citing Period 1975-2005**

<b>Citation Frequency</b>	<b>Article Author, Title, Volume, Issue, Date</b>
<b>1189 times</b>	Lanczos, C., Journal of Research 45:255, 1950 (Iteration method for the solution of the eigenvalue problem of linear differential and integral operators)
<b>1179 times</b>	Hestenes, M.R., Journal of Research 49:409, 1952 (Methods of conjugate gradients for solving linear systems)
<b>928 times</b>	Kissinger, H.E., Journal of Research 57:217, 1956 (Variation of peak temperature with heating rate in differential thermal analysis)
<b>781 times</b>	Hoffman, J.D., Journal of Research 66A:13, 1962 (Melting process and the equilibrium melting temperature of polychlorotrifluoroethylene)
<b>723 times</b>	Greenspan, L., Journal of Research 81:89, 1977 (Humidity fixed points of binary saturated aqueous solutions)
<b>527 times</b>	Broadhurst, M.G., Journal of Research 66A:241, 1962 (Analysis of the solid phase behavior of the normal paraffins)
<b>519 times</b>	Flynn, J.H., Journal of Research 70A:487, 1966 (General treatment of the thermogravimetry of polymers)
<b>454 times</b>	McCrackin, F.L., Journal of Research 67A:363, 1963 (Measurement of the thickness and refractive index of very thin films ....)
<b>387 times</b>	Woolley, H.W., Journal of Research 41:379, 1948 (Compilation of thermal properties of hydrogen in its various isotopic and ortho-para modifications)
<b>382 times</b>	Lauritzen, J.I, Journal of Research 64A:73, 1960 (Theory of formation of polymer crystals with folded chains in dilute solution)

\*Based on Web of Science searches conducted February 2006.

**Table 2.5: Top ten most frequently cited articles published since 1975**

<b>Citation Frequency</b>	<b>Article Author, Title, Volume, Issue, Date</b>
<b>723 times</b>	Greenspan, L., Journal of Research 81A:89, 1977 (Humidity fixed points of binary saturated aqueous solutions)
<b>311 times</b>	Hoffman, J.D., Journal of Research 79A:671, 1975 (On the growth rate of spherulites and axialites from the melt in polyethylene fractions: regime I and regime II crystallization)
<b>265 times</b>	Wineland, D.J., Journal of Research 103:259, 1998 (Experimental issues in coherent quantum-state manipulation of trapped atomic ions)
<b>220 times</b>	McDowell, H., Journal of Research 81A:273, 1977 (Solubility of Ca <sub>5</sub> (PO <sub>4</sub> ) <sub>3</sub> OH in the system Ca(OH) <sub>2</sub> -H <sub>3</sub> PO <sub>4</sub> -H <sub>2</sub> O at 5, 15, 25, and 37 degrees C)
<b>198 times</b>	Brown, R.L., Journal of Research 83:1, 1978 (Tubular flow reactors with first-order kinetics)
<b>197 times</b>	Crosswhite, H.M., Journal of Research 79A:17, 1975 (The iron-neon hollow-cathode spectrum)
<b>187 times</b>	Ditmars, D.A., Journal of Research 87:159, 1982 (Enthalpy and heat-capacity Standard Reference Material: Synthetic sapphire (alpha-Al <sub>2</sub> O <sub>3</sub> ) from 10 to 2250 K)
<b>132 times</b>	Tiesinga, E., Journal of Research 101:505, 1996 (A spectroscopic determination of scattering lengths for sodium atom collisions)
<b>119 times</b>	Angell, C.A., Journal of Research 102:171, 1997 (Entropy and fragility in supercooling liquids)
<b>119 times</b>	Miller, P.A., Journal of Research 100:427, 1995 (An Inductively-Coupled Plasma Source for the Gaseous Electronics Conference Rf Reference Cell)

\*Based on Web of Science searches conducted February 2006.

**Table 2.6a: Citation Frequency of Special Issues Published Since 1985**

<b>Citation frequency</b>	<b>Journal of Research Volume, Issue, Date, Special Issue Title</b>	<b>Number of articles</b>
<b>475 times</b>	v.101(4) 1996 (Bose-Einstein Condensation)	15
<b>407 times</b>	v.93(3) 1988 (Accuracy in Trace Analysis) <i>conference</i>	130
<b>276 times</b>	v.102(2) 1997 (40 Years of Entropy & the Glass Transition) <i>conference</i>	8
<b>209 times</b>	v.98(1) 1993 (NIST Cold Neutron Research Facility)	10
<b>117 times</b>	v.101(3) 1996 (Crystallographic Databases) <i>conference</i>	21
<b>113 times</b>	v.99(4) 1994 (Extreme Value Theory) <i>conference</i>	28
<b>87 times</b>	v.90(6) 1985 (Chemometrics Conference Proceedings) <i>conference</i>	12
<b>59 times</b>	v.97(1) 1992 (Platinum/Neon Spectrum)	3
<b>51 times</b>	v.105(1) 2000 (Applications of High Precision $\gamma$ -Spectroscopy) <i>conference</i>	24
<b>43 times</b>	v.94(1) 1989 (Role of Numeric Databases in Materials and Biological Sciences) <i>conference</i>	10
<b>42 times</b>	v.95(2) 1990 (Radon Measurement Standards and Calibration) <i>conference</i>	11
<b>33 times</b>	v.106(6) 2001 (Crystallography at NBS/NIST)	18
<b>28 times</b>	v.91(1) 1986 (pH Measurements in Rainwater)	5
<b>21 times</b>	v.107(6) 2002 (Accuracy Barriers of Quantitative Electron Beam X-ray Microanalysis) <i>conference</i>	19
<b>20 times</b>	v.91(2) 1986 (Biomedical Sampling) <i>conference</i>	7
<b>18 times</b>	v.109(1) 2004 (Accuracy in Powder Diffraction III – Part 1) <i>conference</i>	11
<b>18 times</b>	v.106(1) 2001 (Centennial Issue: NBS/NIST 100 Years of Measurement)	12

\*Based on Web of Science searches conducted February 2006.

**Table 3.1: Journal of Research Authors by NIST Laboratory, 2000-2005**

Volume/Issue	Total # of Articles	# of articles with no NIST author	EEEL	MEL	CSTL	PL	MSEL	BFRL	ITL	TS	Office of the Director	Guest	Retired NIST	NonNIST
<b>2005:</b>														
110/1	5		3					4	1					5
110/2	5				2	3	2						1	4
110/3	33	27				15								275
110/4	31	26				12			3					235
110/5	4		3				5	4						1
110/6	5			1	3	2			1					0
<b>2004:</b>														
109/1	11	9					3							25
109/2	7		4	3	4		1	1	2					4
109/3	5	1	1	3	2	2						2		2
109/4	5		9		1	3							1	3
109/5	6	1				3	1	1	1				1	1
109/6	5		1	2	1		7					1		1
<b>2003:</b>														
108/1	6	1			6	4								8
108/2	6		3		2	4	2		1					9
108/3	6		1		1	4	9	2	2					9
108/4	5			3		6			7			4		
108/5	5		4			10			1				3	3
108/6	5	1				4	1		3					2
<b>2002:</b>														
107/1	7		1		3		2		6					25
107/2	5	2						2	8			1		12
107/3	5				10	1	3	1	18			2		23



Volume/Issue	Total # of Articles	# of articles with no NIST author	EEEL	MEL	CSTL	PL	MSEL	BFRL	ITL	TS	Office of the Director	Guest	Retired NIST	NonNIST
<b>107/4</b>	6				2	6	1						1	3
<b>107/5</b>	7	1	1	3	1	1	3							3
<b>107/6</b>	19	12			9								2	41
<b>2001:</b>														
<b>106/1</b>	12		8	7	7	16	12	5	14	6		1	2	
<b>106/2</b>	8			6	2			1	5					7
<b>106/3</b>	3		1			1			7					1
<b>106/4</b>	7		8			4	4					1		8
<b>106/5</b>	7			1		4					1	1	1	9
<b>106/6</b>	18	1		3	3	1	34	1	2			4		10
<b>2000:</b>														
<b>105/1</b>	24	24				3								80
<b>105/2</b>	8				5	4	2				1		1	5
<b>105/3</b>	4		2						4					
<b>105/4</b>	12	3	1			3	3	4	10			1		4
<b>105/5</b>	6				2	7	1		1					2
<b>105/6</b>	6		3	1		5	2	1	11			1		5
<b>TOTALS</b>	<b>319</b>	<b>109</b>	<b>54</b>	<b>33</b>	<b>66</b>	<b>128</b>	<b>98</b>	<b>27</b>	<b>108</b>	<b>6</b>	<b>2</b>	<b>19</b>	<b>13</b>	<b>825</b>

**Table 3.4: “Top Ten” Journals in which NIST Authors Publish Most Frequently**

<b>Journal Title</b>	<b>Impact Factor 2004</b>	<b>Number of NIST authored papers (2000-2005*)</b>
Physical Review B	3.075	287
Physical Review Letters	7.218	278
Physical Review A	2.902	253
Journal of Applied Physics	2.255	226
Journal of Research of the National Institute of Standards and Technology	1.123	209
Journal of Chemical Physics	3.105	160
Applied Physics Letters	4.308	143
Langmuir	3.295	111
Metrologia	1.314	98
Macromolecules	3.898	97

\*Jan. 1, 2000-Dec. 13, 2005

\*Based on Web of Science searches conducted December 2005.

**Table 4.3a: Journal of Research Usage Statistics for External Customers**

	<b>2003 Estimates*</b>	<b>2004</b>	<b>2005</b>	<b>% Increase (2003-2005)</b>
Hits	384,294	806,783	1,300,940	239
Visitors	88,307	162,664	250,536	184
Unique IPs	49,474	84,755	111,676	126
Pageviews	70,648	123,457	152,893	116
File Downloads	255,641	547,589	915,326	258
Images	48,923	122,135	177,836	264

\*Estimated totals for 2003 were calculated by dividing the actual total counts by the number of months for which ISD has statistics and multiplying this result by the number of months for which there is missing data.

**Table 4.3b: Journal of Research Usage Statistics for Internal Customers (NIST Staff)**

	<b>2002*</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>% Increase (2003-2005)</b>
Hits	1677	6815	6948	6891	1
Visitors	282	798	1318	1052	32
Unique IPs	170	434	687	616	42
Total pageviews	499	1584	805	666	-58
File Downloads	448	3466	5338	5644	63
Images	728	1752	787	574	-67

\*May 16, 2002 – December 31, 2002 (230 days)

**Table 5.1: Journal of Research Printing Costs for Fiscal Years 2000-2005**

<b>Fiscal Year</b>	<b>Costs</b>	<b># of Issues Printed</b>	<b># of pages</b>	<b># of Bound Copies Printed</b>	<b># of Separates Printed</b>
2000	\$33,087	5	745	2,540	9,000
2001	\$34,415	7*	1,288	3,450	10,800
2002	\$29,515	6	848	2,800	5,500
2003	\$14,729	5	636	2,000	2,500
2004	\$22,644	6	668	1,200	1,900
2005	\$25,820	7	778	1,288	3,600

\*Includes a 380-page special issue for the Centennial.

## **Appendix A: Indexing Coverage of the Journal of Research**

**Based on a search of [ulrichsweb.com](http://ulrichsweb.com) (Ulrich's Periodicals Directory), the Journal of Research is indexed in the following:**

Aluminum Industry Abstracts  
Applied Science & Technology Index  
Cambridge Scientific Abstracts  
    Advanced Polymers Abstracts  
    Civil Engineering Abstracts  
    Engineered Materials Abstracts  
    Mechanical & Transportation Engineering Abstracts  
Ceramic Abstracts  
Chemical Abstracts  
Chemical Engineering and Biotechnology Abstracts (Online Edition)  
Computer and Information Systems Abstracts Journal  
Computer Database  
Corrosion Abstracts  
Current Contents  
Current Index to Statistics (Online Edition)  
Directory of Open Access Journals (DOAJ)  
Earthquake Engineering Abstracts  
Electronics and Communications Abstracts Journal  
The Engineering Index Monthly  
Forestry Abstracts  
GeoRef  
Horticultural Science Abstracts  
Index to Scientific Reviews  
Inspec  
International Aerospace Abstracts  
Materials Business File  
METADEX  
N C B Abstracts  
N C B Current Contents  
Nutrition Abstracts and Reviews  
Personal Alert  
Referativnyi Zhurnal  
Science Citation Index  
Soils and Fertilizers  
Solid State and Superconductivity Abstracts  
Speleological Abstracts  
U.S. Government Periodicals Index (Online Edition)  
World Ceramics Abstracts  
World Surface Coating Abstracts  
Zentralblatt MATH

## Appendix B: “Top Ten” Most Frequently Downloaded Papers, External and Internal NVL, 2004-2005

### *Top ten most frequently downloaded papers in 2004 – External NVL*

(based on external Web log files dated January 1, 2004 – December 31, 2004 with some gaps)

Hit frequency	Citation Frequency*	Article Title, Author, Volume, Issue, Date
6310 hits	3 cites	<a href="#">Electron Diffraction Using Transmission Electron Microscopy</a> Leonid A. Bendersky and Frank W. Gayle <i>vol. 106, no. 6, 2001</i>
5519 hits	6 cites	<a href="#">Measurement of the Rheological Properties of High Performance Concrete: State of the Art Report</a> Chiara F. Ferraris <i>vol. 104, no. 5, 1999</i>
5477 hits	1 cite	<a href="#">A Double-Primary Dead-Weight Tester for Pressures (35-175) kPa in Gage Mode</a> Kamlesh Jain, Yueqin Cen, Walter J. Bowers, and James W. Schmidt <i>vol. 108, no. 1, 2003</i>
5223 hits	0 cites	<a href="#">A Link-Level Simulator of the cdma2000 Reverse-Link Physical Layer</a> H. Gharavi, F. Chin, K. Ban, and R. Wyatt-Millington <i>vol. 108, no.4, 2003</i>
5054 hits	0 cites	<a href="#">JCPDS-ICDD Research Associateship (Cooperative Program with NBS/NIST)</a> W. Wong-Ng, H. F. McMurdie, C. R. Hubbard, and A. D. Mighell <i>vol. 106, no. 6, 2001</i>
4511 hits	8 cites	<a href="#">Amorphous Calcium Phosphate-Based Bioactive Polymeric Composites for Mineralized Tissue Regeneration</a> D. Skrtic, J. M. Antonucci, and E. D. Eanes <i>vol. 108, no. 3, 2003</i>
4048 hits	7 cites	<a href="#">Low-Temperature Properties of Silver</a> David R. Smith and F. R. Fickett <i>Vol. 100, no. 2, 1995</i>
3889 hits	1 cite	<a href="#">A Primary Dead-Weight Tester for Pressures (0.05-1.0) MPa</a> Kamlesh Jain, Walt Bowers, and James W. Schmidt <i>vol. 108, no. 2, 2003</i>
3770 hits	2 cites	<a href="#">Coding and Modulation for LMDS and Analysis of the LMDS Channel</a> Jan Erik Håkegård <i>vol. 105, no. 5, 2000</i>
3762 hits	2 cites	<a href="#">An Experimental Method for Measuring Mechanical Properties of Rat Pulmonary Arteries Verified With Latex</a> E. S. Drexler, A. J. Slifka, J. E. Wright, C. N. McCowan, D. S. Finch, T. P. Quinn, J. D. McColskey, D. D. Ivy, and R. Shandas <i>vol. 108, no. 3, 2003</i>

\* Based on Web of Science search (April 28, 2006).

## Top ten most frequently downloaded papers in 2004 – Internal NVL

(based on internal Web log files dated January 1, 2004 –December 31, 2004)

Hit frequency	Citation Frequency*	Article Title, Author, Volume, Issue, Date
186 hits	3 cites	<a href="#">Changes in the U.S. Primary Standards for the Air Kerma From Gamma-Ray Beams</a> Stephen M. Seltzer and Paul M. Bergstrom, Jr. <i>vol. 108, no. 5, 2003</i>
153 hits	7 cites	<a href="#">The Kilogram and Measurements of Mass and Force</a> Z. J. Jabbour and S. L. Yaniv <i>vol. 106, no. 1, 2001 (Centennial Issue)</i>
135 hits	1 cite	<a href="#">The Kelvin and Temperature Measurements</a> B. W. Mangum, G. T. Furukawa, K. G. Kreider, C. W. Meyer, D. C. Ripple, G. F. Strouse, W. L. Tew, M. R. Moldover, B. Carol Johnson, H. W. Yoon, C. E. Gibson, and R. D. Saunders <i>vol. 106, no. 1, 2001 (Centennial Issue)</i>
106 hits	4 cites	<a href="#">Statistical Interpretation of Key Comparison Reference Value and Degrees of Equivalence</a> R. N. Kacker, R. U. Datla, and A. C. Parr <i>vol. 108, no. 6, 2003</i>
102 hits	2 cites	<a href="#">Materials Research With Neutrons at NIST</a> R. L. Cappelletti, C. J. Glinka, S. Krueger, R. A. Lindstrom, J. W. Lynn, H. A. Prask, E. Prince, J. J. Rush, J. M. Rowe, S. K. Satija, B. H. Toby, A. Tsai, and T. J. Udovic <i>vol. 106, no. 1, 2001</i>
98 hits	6 cites	<a href="#">Characterization of Combinatorial Polymer Blend Composition Gradients by FTIR Microspectroscopy</a> Naomi Eidelman and Carl G. Simon, Jr. <i>vol. 109, no. 2, 2004</i>
97 hits	0 cites	<a href="#">Information Technology Measurement and Testing Activities at NIST</a> Michael D. Hogan, Lisa J. Carnahan, Robert J. Carpenter, David W. Flater, James E. Fowler, Simon P. Frechette, Martha M. Gray, L. Arnold Johnson, R. Michael McCabe, Douglas Montgomery, Shirley M. Radack, Robert Rosenthal, and Craig M. Shakarji <i>Vol. 106, no. 1, 2001</i>
84 hits	2 cites	<a href="#">Virtual Environment for Manipulating Microscopic Particles With Optical Tweezers</a> Yong-Gu Lee, Kevin W. Lyons, Thomas W. LeBrun <i>vol. 108, no. 4, 2003</i>
82 hits	0 cites	<a href="#">The Candela and Photometric and Radiometric Measurements</a> Albert C. Parr <i>vol. 106, no. 1, 2001 (Centennial Issue)</i>
82 hits	1 cite	<a href="#">Statistics and Measurements</a> M. Carroll Croarkin <i>vol. 106, no. 1, 2001 (Centennial Issue)</i>

\* Based on Web of Science search (April 28, 2006).

## Top ten most frequently downloaded papers in 2005 – External NVL

(based on external Web log files dated January 1, 2005 – December 31, 2005 with some gaps)

Hit frequency	Citation Frequency*	Article Title, Author, Volume, Issue, Date
10270 hits	0 cites	<a href="#">Stability Comparison of Recordable Optical Discs--A Study of Error Rates in Harsh Conditions</a> Oliver Slattery, Richang Lu, Jian Zheng, Fred Byers, and Xiao Tang <i>vol. 109, no.5, 2004</i>
8547 hits	3 cites	<a href="#">Electron Diffraction Using Transmission Electron Microscopy</a> Leonid A. Bendersky and Frank W. Gayle <i>vol. 106, no. 6, 2001</i>
8395 hits	7 cites	<a href="#">Low-Temperature Properties of Silver</a> David R. Smith and F. R. Fickett <i>vol. 100, no. 2, 1995</i>
7851 hits	0 cites	<a href="#">Properties of Nanostructured Hydroxyapatite Prepared by a Spray Drying Technique</a> Laurence C. Chow, Limin Sun, and Bernard Hockey <i>vol. 109, no. 6, 2004</i>
7697 hits	6 cites	<a href="#">Measurement of the Rheological Properties of High Performance Concrete: State of the Art Report</a> Chiara F. Ferraris <i>vol. 104, no. 5, 1999</i>
6686 hits	2 cites	<a href="#">Coding and Modulation for LMDS and Analysis of the LMDS Channel</a> Jan Erik Håkegård <i>vol. 105, no. 5, 2000</i>
6587 hits	0 cites	<a href="#">A Link-Level Simulator of the cdma2000 Reverse-Link Physical Layer</a> H. Gharavi, F. Chin, K. Ban, and R. Wyatt-Millington <i>vol. 108, no.4, 2003</i>
6521 hits	1 cite	<a href="#">The Remarkable Metrological History of Radiocarbon Dating [II]</a> L. A. Currie <i>vol. 109, no. 2, 2004</i>
6204 hits	0 cites	<a href="#">JCPDS-ICDD Research Associateship (Cooperative Program with NBS/NIST)</a> W. Wong-Ng, H. F. McMurdie, C. R. Hubbard, and A. D. Mighell <i>vol. 106, no. 6, 2001</i>
5888 hits	0 cites	<a href="#">Preparation and Comprehensive Characterization of a Calcium Hydroxyapatite Reference Material</a> Milenko Markovic, Bruce O. Fowler, and Ming S. Tung <i>vol. 109, no. 6, 2004</i>

\* Based on Web of Science search (April 28, 2006).



## Top ten most frequently downloaded papers in 2005 – Internal NVL

(based on internal Web log files dated January 1, 2005 –December 31, 2005)

Hit frequency	Citation Frequency*	Article Title, Author, Volume, Issue, Date
86 hits	1 cite	<a href="#">Standard Reference Materials (SRMs) for the Calibration and Validation of Analytical Methods for PCBs (as Aroclor Mixtures)</a> Dianne L. Poster, Michele M. Schantz, Stefan D. Leigh, and Stephen A. Wise <i>vol. 109, no. 2, 2004</i>
75 hits	0 cites	<a href="#">Measurement of Workability of Fresh Concrete Using a Mixing Truck</a> Sofiane Amziane, Chiara F. Ferraris, and Eric P. Koehler <i>vol. 110, no. 1, 2005</i>
70 hits	0 cites	<a href="#">The Candela and Photometric and Radiometric Measurements</a> Albert C. Parr <i>vol. 106, no. 1, 2001 (Centennial Issue)</i>
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