Data provided by Thomson Reuters from its Essential Science Indicators, 1 January 2000-31 October 2010

Rank in chemistry	Rank in materials science	Scientist	Papers	Citations	Impact
1		**Charles M. Lieber** Harvard University	74	17,776	240.22
2		**Omar M. Yaghi** Univ of California, Los Angeles	90	19,870	220.78
3		**Michael O'Keeffe** Arizona State University	73	12,910	176.85
4		**K. Barry Sharpless** Scripps Research Institute	60	9,754	162.57
5		**A. Paul Alivisatos** University of California, Berkeley	93	14,589	156.87
6		**Richard E. Smalley †** formerly Rice University	60	9,217	153.62
7		**Hongjie Dai** Stanford University	88	12,768	145.09
8		**Xiaogang Peng** University of Arkansas	59	8,548	144.88
9		**Valery V. Fokin** Scripps Research Institute	54	6,853	126.91
10	1	**Peidong Yang** University of California, Berkeley	95	11,167	117.55
11		**Benjamin List** Max Planck Inst of Coal Research	81	8,808	108.74
12	50	**Mark E. Thompson** Univ of Southern California	53	5,394	101.77
13		**Robert H. Hauge** Rice University	55	5,566	101.20
14		**Eric N. Jacobsen** Harvard University	81	7,985	98.58
15		**Banglin Chen** University of Texas at San Antonio	61	5,929	97.20
16		**David W. C. Macmillan** Princeton University	55	5,267	95.76
17		**Mostafa El-Sayed** Georgia Institute of Technology	111	10,135	91.31
18		**Ezio Rizzardo** Commonwealth Scientific and Research Organisation (CSIRO), Australia	52	4,747	91.29
19		**Michael S. Strano** Massachusetts Institute of Technology	54	4,843	89.69
20		**Michael J. Zaworotko** University of South Florida	83	7,403	89.19
21		**Dmitri V. Talapin** University of Chicago	56	4,981	88.95
22		**Ryoji Noyori** Nagoya University	62	5,486	88.48
23		**Chad A. Mirkin** Northwestern University	233	20,505	88.00
24		**Liberato Manna** Italian Institute of Technology	62	5,431	87.60
25		**Richard P. Van Duyne** Northwestern University	88	7,690	87.39
26		**Robert H. Grubbs** California Institute of Technology	170	14,617	85.98
27		**Carlos F. Barbas** Scripps Research Institute	95	8,029	84.52
28		**James R. Heath** California Institute of Technology	69	5,830	84.49
29		**Moungi G. Bawendi** MIT	52	4,364	83.92
30		**David A. Case** Rutgers University	60	5,007	83.45
31		**Shouheng Sun** Brown University	84	6,970	82.98
32	10	**Catherine J. Murphy** University of Illinois at Urbana-Champaign	69	5,717	82.86
33		**M. G. Finn** Scripps Research Institute	76	6,286	82.71
34		**Stephen L. Buchwald** MIT	169	13,941	82.49
35	4	**Younan Xia** Washington University in St Louis	161	13,120	81.49
36		**Stuart L. Schreiber** Harvard University	66	5,369	81.35
37	19	**Taeghwan Hyeon** Seoul National University	82	6,587	80.33
38		**George M. Whitesides** Harvard University	228	18,237	79.99
39		**Ryong Ryoo** Korea Advanced Institute of Science and Technology	77	6,057	78.66
40		**Michael F. Rubner** MIT	51	4,004	78.51
41	20	**Xiangfeng Duan** Univ of California, Los Angeles	64	5,022	78.47
42	48	**Michael Grätzel** Swiss Federal Institute of Technology, Lausanne	187	14,602	78.09
43		**Gregory C. Fu** MIT	111	8,384	75.53
44	89	**Horst Weller** University of Hamburg	73	5,428	74.36
45		**Joan F. Brennecke** University of Notre Dame	65	4,827	74.26
46		**Kenneth R. Seddon** Queen's University Belfast	94	6,916	73.57
47	8	**Alan J. Heeger** Univ of California, Santa Barbara	66	4,758	72.09
48		**Andreas Manz** Korea Institute of Science and Technology Europe	70	5,030	71.86
49		**Hua Chun Zeng** National University of Singapore	53	3,673	69.30
50		**Suprakas Sinha Ray** Council for Scientific and Industrial Research (CSIR), South Africa	50	3,411	68.22
51		**Mikhail E. Itkis** University of California, Riverside	60	4,069	67.82
52		**Osamu Terasaki** Stockholm University	92	6,198	67.37
53	29	**Shaik M. Zakeeruddin** Swiss Federal Institute of Technology, Lausanne	63	4,204	66.73
54		**Wenbin Lin** Univ of North Carolina at Chapel Hill	104	6,930	66.63
55	2	**Yadong Yin** University of California, Riverside	57	3,787	66.44
56		**John R. Yates** Scripps Research Institute	86	5,696	66.23
57		**Samuel I. Stupp** Northwestern University	62	4,073	65.69
58		**Prashant V. Kamat** University of Notre Dame	99	6,426	64.91
59		**John D. Holbrey** Queen's University Belfast	63	4,016	63.75
60		**Jens K. Nørskov** Technical University of Denmark	122	7,736	63.41
61	5	**Yugang Sun** Argonne National Laboratory	93	5,896	63.40
62		**Evgeny Katz** Clarkson University	97	6,147	63.37
63	75	**Craig J. Hawker** Univ of California, Santa Barbara	141	8,893	63.07
64		**Christian Serre** Versailles Saint-Quentin-en-Yvelines University	72	4,517	62.74
65	71	**Richard H. Friend** University of Cambridge	74	4,642	62.73
=66		**Jean M. J. Fréchet** Univ of California, Berkeley	209	12,985	62.13
=66		**James M. Tour** Rice University	134	8,325	62.13
68		**Robert C. Haddon** Univ of California, Riverside	84	5,191	61.80
69		**Peter J. Stang** University of Utah	103	6,356	61.71
70	24	**Nicholas A. Kotov** University of Michigan	78	4,809	61.65
71		**F. Dean Toste** University of California, Berkeley	84	5,163	61.46
72		**Michal Kruk** City University of New York	54	3,315	61.39
73		**Didier Astruc** University of Bordeaux I	114	6,883	60.38
74	83	**Michael Giersig** Free University of Berlin	55	3,310	60.18
75		**George C. Schatz** Northwestern University	202	12,116	59.98
76		**Harold G. Craighead** Cornell University	51	3,042	59.65
77		**Keith Fagnou †** University of Ottawa	63	3,747	59.48
78		**Milan Mrksich** University of Chicago	54	3,168	58.67
79		**Alois Fürstner** Max Planck Inst of Coal Research	151	8,858	58.66
80		**Karl Anker Jørgensen** Aarhus University	152	8,893	58.51
81		**Rustem F. Ismagilov** University of Chicago	59	3,437	58.25
82		**Richard A. Friesner** Columbia University	98	5,697	58.13
83		**Jairton Dupont** Federal University of Rio Grande do Sul	120	6,964	58.03
84		**John F. Hartwig** University of Illinois at Urbana-Champaign	167	9,638	57.71
85		**Robert Langer** MIT	98	5,632	57.47
86		**Mark E. Davis** California Institute of Technology	66	3,791	57.44
=87		**Manos Mavrikakis** Univ of Wisconsin-Madison	56	3,205	57.23
=87		**Adi Eisenberg** McGill University	65	3,720	57.23
89		**Maurice Brookhart** University of North Carolina at Chapel Hill	87	4,978	57.22
90		**Amir H. Hoveyda** Boston College	122	6,967	57.11
91		**Charles R. Martin** University of Florida	58	3,312	57.10
92		**Alexander Zapf** University of Rostock	60	3,407	56.78
93		**Jeffrey R. Long** University of California, Berkeley	98	5,563	56.77
94		**Neil R. Champness** University of Nottingham	86	4,877	56.71
95		**Naomi J. Halas** Rice University	73	4,131	56.59
96		**Abraham Nitzan** Tel Aviv University	51	2,879	56.45
97		**Charles L. Brooks** University of Michigan	67	3,778	56.39
98		**Helmut Cölfen** Max Planck Institute of Colloids and Interfaces	82	4,595	56.04
99		**Jérôme Cornil** University of Mons	65	3,640	56.00
100		**Geoffrey W. Coates** Cornell University	90	5,029	55.88

The United Nations Educational, Scientific and Cultural Organisation (Unesco) and the International Union of Pure and Applied Chemistry (IUPAC) have proclaimed this to be the International Year of Chemistry. During 2011, celebrations and special events will be held around the globe "to increase the public appreciation of chemistry in meeting world needs, to encourage interest in chemistry among young people, and to generate enthusiasm for the creative future of chemistry".

The table presented here is intended to celebrate the achievements of 100 chemists who achieved the highest citation impact scores for chemistry papers (articles and reviews) published since January 2000. Citation impact (citations per paper) is a weighted measure of influence that seeks to reveal consistently superior performance. To ensure that a high score could not be achieved by a few highly cited papers, a threshold of 50 papers was used in the analysis.

The average citation impact in chemistry for the period was 11.07, so all the researchers listed above achieved more than five times that mark. Given that about 1 million chemists were recorded in the journals indexed by Thomson Reuters during the past decade, these 100 represent the top 0.01 of 1 per cent. Sixteen of those listed also ranked in the top 100 by citation impact in materials science, among those who published 25 or more papers in that field during the past decade. Their materials science ranks are noted beside their ranks in chemistry.

Nanotechnology in all its aspects is strongly in evidence when one surveys the research interests of the chemists listed. While the rubric covers much and some sceptics call "nano" the latest fad in chemistry, there is no denying the message of the citation indicators. The field has attracted enormous interest in the past 10 years. Of the 100 chemists listed, 60 identify nanotechnology as their main focus or a significant research topic.

The national affiliations of the authors are: 70 for the US, seven for Germany, four for the UK, two each for Canada, France, Denmark, Switzerland and South Korea, and one apiece for Australia, Belgium, Sweden, Italy, Israel, South Africa, Brazil, Japan and Singapore. The institutions appearing three or more times are: Massachusetts Institute of Technology (6), the Scripps Research Institute (5), the University of California, Berkeley (5), Harvard University (4), Rice University (4), Northwestern University (4), the California Institute of Technology (3), the University of California, Riverside (3) and the University of Chicago (3).

To provide a more comprehensive view of high-impact researchers in chemistry, lists of the top 100 researchers in materials science and biochemistry will appear during the year in these pages.

For more information on Thomson Reuters Essential Science Indicators, see http://science.thomsonreuters.com/products/esi/

Next week: Chinese universities of the C9 League