

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

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

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.

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Next week: Chinese universities of the C9 League