

TOP MATERIALS SCIENTISTS OF THE PAST DECADE

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

Rank in materials science		Impact		Rank in materials science		Impact		Rank in materials science		Impact													
Rank in chemistry		Citations		Rank in chemistry		Citations		Rank in chemistry		Citations													
Scientist	Papers	Scientist	Papers	Scientist	Papers	Scientist	Papers	Scientist	Papers	Scientist	Papers												
1	10	Peidong Yang Univ of California, Berkeley	36	13,900	386.11	31	Paul W. M. Blom University of Groningen	37	2,176	58.81	60	Marie-Paule Pileni Pierre and Marie Curie University	32	1,612	50.38	83	74	Michael Giersig Free University of Berlin	36	1,570	43.61		
2	55	Yadong Yin Univ of California, Riverside	32	6,387	199.59	32	Jenny Nelson Imperial College London	31	1,821	58.74	61	Jonathan N. Coleman Trinity College Dublin	30	1,507	50.23	84		Jean-Luc Brédas Georgia Institute of Technology	50	2,177	43.54		
3		Michael H. Huang National Tsing Hua University	34	5,439	159.97	33	David J. Mooney Harvard University	43	2,512	58.42	62	Zhenan Bao Stanford University	38	1,907	50.18	85		Thomas E. Mallouk Pennsylvania State University	35	1,523	43.51		
4	35	Yunan Xia Washington University in St Louis	83	11,936	143.81	34	Tsu-Wei Chou University of Delaware	33	1,915	58.03	63	Dieter Neher University of Potsdam	30	1,499	49.97	86		Caroline A. Ross MIT	27	1,174	43.48		
5	61	Yugang Sun Argonne National Laboratory	37	5,231	141.38	35	Iain McCulloch Imperial College London	30	1,725	57.50	64	Dieter Wolf Idaho National Laboratory	26	1,285	49.42	87		John W. Hutchinson Harvard University	42	1,824	43.43		
6		Yiyang Wu Ohio State University	74	9,590	129.59	36	Andreas Greiner University of Marburg	30	1,716	57.20	65	Kornelius Nielsch University of Hamburg	27	1,322	48.96	88		David Beljonne University of Mons	25	1,085	43.40		
7		Jan C. Hummelen University of Groningen	38	4,643	122.18	37	Ferdi Schüth Max Planck Inst for Coal Research	60	3,395	56.58	66	Yet-Ming Chiang MIT	26	1,254	48.23	89	44	Horst Weller University of Hamburg	25	1,082	43.28		
8	47	Alan J. Heeger Univ of California, Santa Barbara	49	5,788	118.12	38	Henning Sirringhaus University of Cambridge	39	2,173	55.72	67	Joachim H. Wendorff University of Marburg	30	1,430	47.67	90		Frederik C. Krebs Risø DTU National Laboratory	48	2,077	43.27		
9		Oomman K. Varghese Pennsylvania State University	28	3,021	107.89	39	Samson A. Jenekhe University of Washington	27	1,490	55.19	68	Antonios G. Mikos Rice University	95	4,507	47.44	91		Linda S. Schadler					
10	32	Catherine J. Murphy University of Illinois at Urbana-Champaign	31	3,313	106.87	40	C. Suryanarayana University of Central Florida	33	1,801	54.58	69	John R. Reynolds University of Florida	45	2,131	47.36	92		Rensselaer Polytechnic Institute	42	1,817	43.26		
11		Michael D. McGehee Stanford University	26	2,651	101.96	41	James R. Durrant Imperial College London	31	1,669	53.84	70	David Grosso Pierre and Marie Curie University	55	2,548	46.33	93		René A. J. Janssen Eindhoven Univ of Technology	61	2,633	43.16		
12		Christoph J. Brabec Univ of Erlangen-Nuremberg	43	4,242	98.65	42	Guillermo C. Bazan UC, Santa Barbara	55	2,960	53.82	71	65	Richard H. Friend University of Cambridge	60	2,775	46.25	94		Young-Woo Heo Kyungpook National University	30	1,294	43.13	
13		Stephen R. Forrest University of Michigan	25	2,417	96.68	43	Meixiang Wan Chinese Academy of Sciences, Institute of Chemistry, Beijing	29	1,557	53.69	72		Paula T. Hammond MIT	42	1,927	45.88	95		Alan H. Windle University of Cambridge	36	1,552	43.11	
14		N. Serdar Sariciftci Johannes Kepler University of Linz	74	6,444	87.08	44	Pierre-Antoine Albouy University of Paris-Sud 11	28	1,503	53.68	73		Richard W. Siegel Rensselaer Polytechnic Institute	31	1,419	45.77	96		Andrew I. Cooper University of Liverpool	30	1,284	42.80	
15		Herbert Gleiter Karlsruhe Institute of Technology	29	2,440	84.14	45	Dietmar W. Hutmacher Queensland University of Technology	39	2,092	53.64	74	63	Craig J. Hawker Univ of California, Santa Barbara	34	1,548	45.53	97		Markus Niederberger Swiss Federal Institute of Technology, Zurich	36	1,537	42.69	
16		Rodney S. Ruoff University of Texas at Austin	25	2,060	82.40	46	Anders Hagfeldt Uppsala University	26	1,385	53.27	75		Peter X. Ma University of Michigan	30	1,352	45.07	98		Antonio Facchetti Northwestern University and Polymers Corporation	37	1,579	42.68	
17		Frank Caruso University of Melbourne	74	5,589	75.53	47	Dago M. De Leeuw University of Groningen and Philips Research Laboratories	32	1,704	53.25	76		Karine Alselme Upper Alsace University	25	1,122	44.88	99		Nicola Pinna University of Aveiro and Seoul National University	25	1,057	42.28	
18		Phillippe Dubois University of Mons	36	2,628	73.00	48	42	Michael Grätzel Swiss Federal Institute of Technology, Lausanne	52	2,763	53.13	77		David L. Kaplan Tufts University	77	3,408	44.26	100		Xiang Min Meng Chinese Academy of Sciences, Technical Institute of Physics and Chemistry, Beijing	31	1,309	42.23
19	37	Taeghwan Hyeon Seoul National University	37	2,685	72.57	49		Zhifeng Ren Boston College	37	1,963	53.05	78		Donal D. C. Bradley Imperial College London	57	2,522	44.25			William D. Nix Stanford University	49	2,065	42.14
20	41	Xiangfeng Duan Univ of California, Los Angeles	39	2,825	72.44	50	12	Mark E. Thompson Univ of Southern California	28	1,482	52.93	79		Kam W. Leong Duke University	45	1,991	44.24						
21		Rachel A. Caruso University of Melbourne	27	1,948	72.15	51		Andrey L. Rogach City University of Hong Kong	34	1,781	52.38	80		Yeshayahu Lifshitz Technion – Israeli Institute of Technology	25	1,097	43.88						
22		Galen D. Stucky Univ of California, Santa Barbara	72	5,095	70.76	52		Rinat K. Islamgaliev Ufa State Aviation Technical University	37	1,926	52.05	81		John A. Rogers Univ of Illinois, Urbana-Champaign	61	2,671	43.79						
23		Igor V. Alexandrov Ufa State Aviation Technical University	38	2,555	67.24	53		Mats R. Andersson Chalmers Univ of Technology	28	1,449	51.75	82											
24	70	Nicholas A. Kotov University of Michigan	36	2,388	66.33	54		Mietek Jaroniec Kent State University	54	2,771	51.31												
25		Craig A. Grimes Pennsylvania State University	55	3,626	65.93	55		Fujio Izumi National Institute for Materials Science, Japan	25	1,277	51.08												
26		Ullrich Scherf University of Wuppertal	64	4,099	64.05	56		Simon R. Phillpot University of Florida	29	1,481	51.07												
27		Andreas Stein University of Minnesota	47	2,985	63.51	57		Neil Coombs University of Toronto	25	1,269	50.76												
28		Subra Suresh Massachusetts Institute of Technology	64	4,024	62.88	58		Terry C. Lowe Manhattan Scientifics	28	1,416	50.57												
29	53	Shaik M. Zakeeruddin Swiss Federal Institute of Technology, Lausanne	27	1,670	61.85	59		Wolfgang J. Parak University of Marburg	27	1,365	50.56												
30		Ray H. Baughman University of Texas at Dallas	25	1,503	60.12																		

In recognition of 2011 being named the International Year of Chemistry, *Times Higher Education* previously featured a list of the top 100 chemists over the past decade according to citation impact (citations per paper). In that analysis, a set of discipline-specific journals defined the field of chemistry; as a supplement, selected papers in multidisciplinary journals such as *Science* and *Nature* were also counted. But it must be admitted that chemistry is difficult to define precisely. To supplement the previous treatment, the current table presents data on high-impact researchers in materials science, a realm that overlaps with chemistry as well as physics, engineering and other areas. Once again, the field was defined by a set of discipline-specific journals plus papers dealing with materials science from multidisciplinary titles. Influential biochemists will be the focus of a future analysis to round out our celebration of chemistry.

The table above lists the 100 researchers in material science who achieved the highest citation-impact scores for papers (articles and reviews) published since January 2000. Impact is a weighted measure of influence that seeks to reveal consistently superior performance. To ensure that high scores could not be achieved by a few highly cited papers, a threshold of 25 papers was used in the analysis. The average citation impact in materials science for the period was 6.93, so all the researchers listed above achieved more than six times that mark.

Since approximately 500,000 materials scientists were recorded in the journal publications indexed by

Thomson Reuters during the past decade, those listed above represent the top 0.02 of 1 per cent in the field. Sixteen of those listed also ranked in the top 100 by citation impact in chemistry, among those who published 50 or more papers in that field during the past decade. Their ranks in chemistry are noted.

As with the chemistry table, this list includes many researchers who state that a main or significant focus of their research is nanotechnology – by our count, 78 per cent of the scientists featured.

The authors' national affiliations are: 48 for the US; 11 for Germany; eight for the UK; four each for France and the Netherlands; three for Australia, China (including Hong Kong), South Korea and Switzerland; two for Belgium, Russia and Sweden; and one apiece for Austria, Canada, Denmark, the Republic of Ireland, Israel, Japan, Portugal and Taiwan (which comes to 101 owing to Nicola Pinna's appointments in Portugal and South Korea). The institutions appearing three or more times are: University of California, Santa Barbara (5); Imperial College London (4); Massachusetts Institute of Technology (4); Pennsylvania State University (3); Stanford University (3); the University of Cambridge (3); the University of Groningen (3); the University of Marburg (3); and the University of Michigan (3).

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