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1 Executive summary

This document summarizes a study of the publications and citations of the top 20 chemical engineering departments.

The data was obtained from Scopus using a query like "AFFIL=(university name and chemical engineering)". In some cases a city was used, e.g. Austin, Boulder, Berkeley, Santa Barbara, or Philadelphia, if the university name was insufficient. Scopus is most reliable past 1995.

Ranking data is from here <http://www.university-list.net/us/rank/univ-20121038.htm>

The number of publications for approximately the top 10 schools can be seen in Fig. 1. It is evident our number of publications is near the bottom of this list, and the top ranked schools publish significantly more than we do. These numbers are not normalized by the size of the departments.

A comparison of the number of publications from CMU-ChemE and approximately the next 10 departments is shown in Figure 2. We are near the top of this plot, but there are a notable number of schools that publish more than us, but which are currently ranked lower.

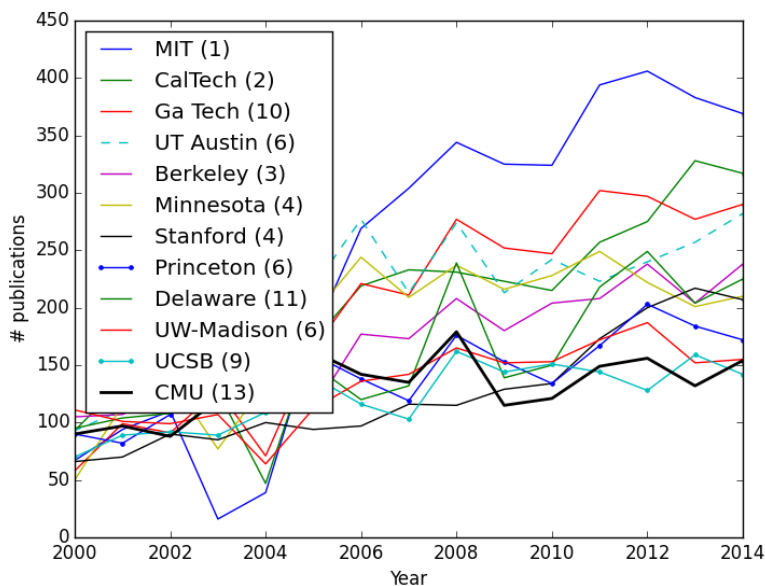


Figure 1: Historical number of publications for approximately the top 10 ChemE departments, including CMU.

1.1 MIT

Journal	#Publications
ACS Nano	12
Proceedings of the National Academy of Sciences of the United States of America	11
ACS Applied Materials and Interfaces	8
Crystal Growth and Design	8
Journal of Physical Chemistry A	8
Energy and Environmental Science	7
Langmuir	7
RSC Advances	7
Advanced Materials	6
Computers and Chemical Engineering	6

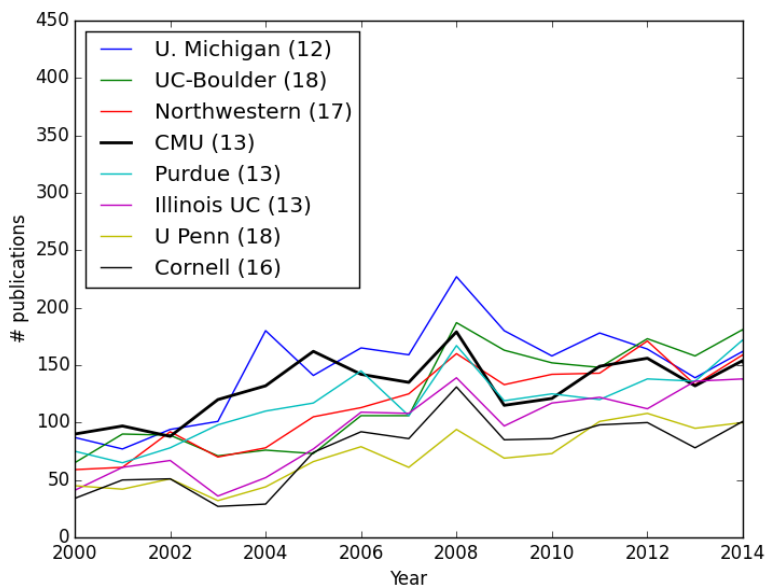


Figure 2: Historical number of publications for approximately the next 10 ChemE departments, including CMU.

count	name
Strano M.S. 7004189361	21
Braatz R.D. 7005734090	18
Anderson D.G. 55561679100	18
Jensen K.F. 35551829500	17
Doyle P.S. 55810114300	15
Langer R. 55763795283	13
Olsen B.D. 16310882200	12
Hammond P.T. 55197103300	11
Myerson A.S. 35586255000	11
Green W.H. 7402259989	11

929 citations for 2014 publications

1.2 Caltech

Journal	#Publications
Journal of the American Chemical Society	28
Angewandte Chemie - International Edition	16
Proceedings of the National Academy of Sciences of the United States of America	15
Atmospheric Chemistry and Physics	8
Chemical Science	8
Polyhedron	8
ACS Catalysis	7
Macromolecules	7
Astrophysical Journal	6
Energy and Environmental Science	6

count	name
Arnold F.H. 7202489032	20
Lewis N.S. 55279232600	17
Seinfeld J.H. 56133413500	16
Grubbs R.H. 36047111100	16
Stoltz B.M. 7007068441	15
Brunschwig B.S. 6701688669	12
Peters J.C. 7404191116	11
Hwang S.-J. 7404626491	10
Gray H.B. 36047602600	10

1094 citations for 2014 papers

1.3 GaTech

Journal	#Publications
Atmospheric Chemistry and Physics	9
Applied Microbiology and Biotechnology	8
Journal of Physical Chemistry C	8
ACS Applied Materials and Interfaces	7
Carbon	7
ACS Nano	6
ChemSusChem	6
Advanced Functional Materials	5
Journal of Membrane Science	5

count	name
Koros W.J. 7102165550	23
Sholl D.S. 7006706654	23
Jones C.W. 55448095700	22
Liu L. 35262715700	17
Shin H.-D. 55545525000	16
Deng Y. 7401531091	14
Nenes A. 6701378450	13
Du G. 7201728066	12
Prausnitz M.R. 7006199362	11
Li J. 52364336200	9

504 citations for 2014 publications

1.4 UT Austin

Journal	#Publications
Industrial and Engineering Chemistry Research	11
Polymer (United Kingdom)	11
Journal of Membrane Science	10
Journal of Physical Chemistry C	9
Chemistry of Materials	8
Journal of Materials Chemistry A	7
ACS Applied Materials and Interfaces	6
Journal of Physical Chemistry Letters	6
Journal of the American Chemical Society	5
ACS Nano	4

count	name
Paul D.R. 7401665359	24
Freeman B.D. 55859868200	22
Edgar T.F. 35569277000	20
Mullins C.B. 55234573000	19
Ellison C.J. 7005195819	18
Peppas N.A. 36042831900	15
Georgiou G. 7101850711	11
Truskett T.M. 6701644278	11
Johnston K.P. 7202814438	10
Ekerdt J.G. 7005513883	10

752 citations for 2014

1.5 UC Berkeley

Journal	#Publications
Journal of the American Chemical Society	17
Journal of Catalysis	10
Journal of Physical Chemistry C	9
Journal of the Electrochemical Society	9
Macromolecules	9
ACS Catalysis	8
Energy and Environmental Science	6
ChemSusChem	5
Journal of Physical Chemistry B	5
Metabolic Engineering	5

count	name
Keasling J.D. 7005564120	28
Bell A.T. 36062590400	26
Balsara N.P. 7006013888	20
Smit B. 7102999528	16
Schaffer D.V. 7005366613	12
Iglesia E. 26643572200	11
Maboudian R. 7006616139	11
Petzold C.J. 6701791305	10
Carraro C. 22960047900	10
Adams P.D. 7403071759	9

727 citations in 2014 publications

1.6 U. Minnesota

Journal	#Publications
Macromolecules	13
Journal of Physical Chemistry C	8
Langmuir	8
Physical Review B - Condensed Matter and Materials Physics	6
ACS Applied Materials and Interfaces	5
Industrial and Engineering Chemistry Research	5
AIChE Journal	4
Advanced Functional Materials	4
Advanced Materials	4

count	name
Bates F.S. 7103233705	15
Frisbie C.D. 7003751394	14
Tsapatsis M. 7005981012	13
Hillmyer M.A. 7004547986	13
Lodge T.P. 7103096958	13
Bhan A. 7103189488	12
Mkhoyan K.A. 6602079947	11
Leighton C. 7006523362	10
Daoutidis P. 35576381000	10
Dorfman K.D. 6701419011	10

416 citations in 2014 publications

1.7 Stanford

Journal	#Publications
ACS Applied Materials and Interfaces	5
ACS Catalysis	3
ACS Nano	3
ACS Sustainable Chemistry and Engineering	1
ACS Synthetic Biology	1
Advanced Energy Materials	3
Advanced Functional Materials	1
Advanced Materials	10
American Journal of Physiology - Lung Cellular and Molecular Physiology	1
Analytical Chemistry	2

Name	count
Bao Z. 55628573453	27
Norskov J.K. 7007042214	20
Jaramillo T.F. 6603398169	16
Bent S.F. 7006463092	15
Cui Y. 35207974600	15
Abild-Pedersen F. 55991126900	13
Bao Z. 23065783000	12
Kim W.-H. 55786438800	11
Frank C.W. 7201796097	11
Zheng G. 50761578600	11

899 citations for 2014 publications

Notes: Bao Z. has multiple Scopus IDs, so is listed twice here.

1.8 U Delaware

Journal	#Publications
ACS Catalysis	6
ACS Macro Letters	6
ACS Sustainable Chemistry and Engineering	1
ACS Synthetic Biology	1
AIChE Journal	2
Advanced Functional Materials	1
Advanced Materials	1
Analytical Chemistry	1
Angewandte Chemie - International Edition	2
Annual Review of Chemical and Biomolecular Engineering	1

count	name
Vlachos D.G. 7101636618	25
Wagner N.J. 7103202899	17
Yan Y. 7404585698	17
Chen J.G. 7501891385	16
Porcar L. 7004382097	12
Lobo R.F. 7201418960	11
Nikolakis V. 6602728656	10
Furst E.M. 7003449776	10
Brown C.M. 7408312784	10
Sandler S.I. 7201423885	9

549 citations on 2014 publications

1.9 UC Boulder

Journal	#Publications
Journal of Pharmaceutical Sciences	11
Journal of Membrane Science	8
Chemistry of Materials	7
Journal of the American Chemical Society	7
Macromolecules	7
Polymer (United Kingdom)	6
Advanced Functional Materials	5
Advanced Materials	5
Journal of Physical Chemistry C	5
Dental Materials	4

count	name
Bowman C.N. 56040490700	25
Randolph T.W. 7005729819	16
Carpenter J.F. 35391333500	14
Stansbury J.W. 7006360884	12
Schwartz D.K. 7403104511	11
Anseth K.S. 56040490300	10
Gin D.L. 7006152202	9
Medlin J.W. 35608601500	9
Noble R.D. 7202389795	9
Cha J.N. 7202455766	9

446 citations on 2014 publications

1.10 Princeton

Journal	#Publications
Journal of Chemical Physics	11
Computers and Chemical Engineering	10
Chemical Communications	5
Industrial and Engineering Chemistry Research	5
Journal of Physical Chemistry B	5
AIChE Journal	4
Chemical Engineering Science	4
Journal of the American Chemical Society	4
Langmuir	4
Physical Chemistry Chemical Physics	4

count	name
Floudas C.A. 7004284720	30
Loo Y.-L. 7006896614	13
Koel B.E. 35556864000	11
Panagiotopoulos A.Z. 7006335566	10
Debenedetti P.G. 7005110339	10
Carter E.A. 7202462172	9
Register R.A. 7005741264	8
Khoury G.A. 55805414200	8
Nikoubashman A. 35389366600	8
Priestley R.D. 7003933607	7

340 citations on 2014 publications

1.11 Purdue

Journal	#Publications
AIChE Journal	8
Journal of Catalysis	8
ACS Catalysis	6
Computers and Chemical Engineering	6
ACS Applied Materials and Interfaces	5
Industrial and Engineering Chemistry Research	5
Journal of Chromatography A	5
Journal of Physical Chemistry C	5
Angewandte Chemie - International Edition	4
Chemistry of Materials	4

name	count
Agrawal R. 35236216500	16
Ribeiro F.H. 7102417820	14
Delgass W.N. 55665425600	11
Abu-Omar M.M. 7004120750	10
Miller J.T. 7501599068	10
Greeley J.P. 56268000500	9
Nagy Z.K. 7201536402	9
Ramkrishna D. 35566975200	9
Wu Y. 55552707700	8
Stach E.A. 7005363187	7

267 citations on 2014 publications

1.12 U Michigan

Journal	#Publications
PLoS ONE	6
ACS Nano	5
ACS Applied Materials and Interfaces	4
Industrial and Engineering Chemistry Research	4
Journal of Power Sources	4
Journal of Rheology	4
Nano Letters	4
Soft Matter	4
ACS Sustainable Chemistry and Engineering	3
Advanced Materials	3
Applied Catalysis B: Environmental	3
Catalysis Today	3
Energy and Fuels	3

count	name
Savage P.E. 7202875052	17
Larson R.G. 7402161971	15
Kotov N.A. 22135180200	12
Monroe C.W. 7006243205	11
Glutzer S.C. 7004361447	11
Lahann J. 6603555265	9
Engel M. 7102289204	6
Schwank J.W. 7006239108	6
Cheng C. 55505228000	6
Zhao C. 7403563969	6

313 publications on 2014 publications

1.13 Northwestern

Journal	#Publications
Industrial and Engineering Chemistry Research	8
AIChE Journal	7
Chemical Communications	6
Biomaterials	5
Computers and Chemical Engineering	5
ACS Synthetic Biology	4
Biotechnology and Bioengineering	4
Journal of Physical Chemistry C	4
Journal of the American Chemical Society	4
Catalysis Letters	3

count	name
You F. 24451544800	20
Shea L.D. 7005328686	19
Snurr R.Q. 7004265176	18
Broadbelt L.J. 7005682410	13
Kung H.H. 7402514104	12
Kung M.C. 7102775676	9
Jewett M.C. 7004518193	8
Yue D. 55376757800	7
Hupp J.T. 7101807715	6
Shen J. 55488336900	6

392 citations on publications

1.14 CMU

Journal	#Publications
Computers and Chemical Engineering	27
Industrial and Engineering Chemistry Research	16
AIChE Journal	12
Atmospheric Chemistry and Physics	5
Journal of Applied Physics	4
Surface Science	4
Applied Energy	3
Environmental Science and Technology	3
Journal of Physical Chemistry C	3
Atmospheric Environment	2
Atmospheric Measurement Techniques	2
Carbon	2

Name	count
Grossmann I.E. 7102750465	42
Biegler L.T. 7006104981	20
Pandis S.N. 7006023094	11
Jhon M.S. 7005439331	8
Sahinidis N.V. 7004139208	7
Gellman A.J. 35514271900	7
Kitchin J.R. 7004212771	7
Ydstie B.E. 7006234601	7
Martin M. 35307425700	6
Wassick J.M. 7801493949	5

198 citations for 2014 publications

1.15 Illinois

Journal	#Publications
PLoS ONE	7
Langmuir	5
ACS Catalysis	4
Angewandte Chemie - International Edition	3
Applied and Environmental Microbiology	3
Biotechnology and Bioengineering	3
Journal of Chemical Physics	3
Journal of the American Chemical Society	3
Metabolic Engineering	3
Molecular Microbiology	3

Name	count
Zhao H. 7404778848	25
Kenis P.J.A. 6701733846	14
Kong H. 7201353008	9
Rao C.V. 55362704500	7
Yang H. 35783639600	6
Harley B.A.C. 7003442002	6
Desai A.V. 36645766500	5
Seebauer E.G. 7004424518	5
Pack D.W. 7005113394	5
Lian J. 24553907300	4

258 citations for 2014 publications

1.16 UCSB

Journal	#Publications
Macromolecules	7
Diabetes Technology and Therapeutics	6
Journal of Chemical Physics	6
ACS Nano	5
Journal of Controlled Release	5
Langmuir	5
Soft Matter	5
ACS Macro Letters	4
AIChE Journal	4
Chemistry of Materials	4

count	name
Dassau E. 8613444900	14
Mitragotri S. 7004334682	13
Kramer E.J. 55588362100	12
Doyle III F.J. 35232822700	10
Doyle F.J. 35232822700	10
Israelachvili J.N. 23035044700	10
Fredrickson G.H. 7005460604	9
Squires T.M. 7005606427	8
Leal L.G. 7103037972	8
Jovanovic L. 34770955700	7

267 citations for 2014 publications

1.17 UPenn

Journal	#Publications
Langmuir	9
Proceedings of the National Academy of Sciences of the United States of America	5
Industrial and Engineering Chemistry Research	4
Soft Matter	4
ACS Applied Materials and Interfaces	3
Blood	3
Integrative Biology (United Kingdom)	3
ACS Nano	2
Applied Catalysis A: General	2
Biophysical Journal	2

count	name
Lee D. 8882507400	17
Gorte R.J. 7005801370	15
Diamond S.L. 7202852214	10
Hammer D.A. 55537179900	7
Riggleman R.A. 14054798300	7
Lazzara M.J. 6602073517	5
Cargnello M. 35335926300	5
Vohs J.M. 56262596400	4
Radhakrishnan R. 7103113008	4
Stebe K.J. 7004561002	4

166 citations on 2014 publications