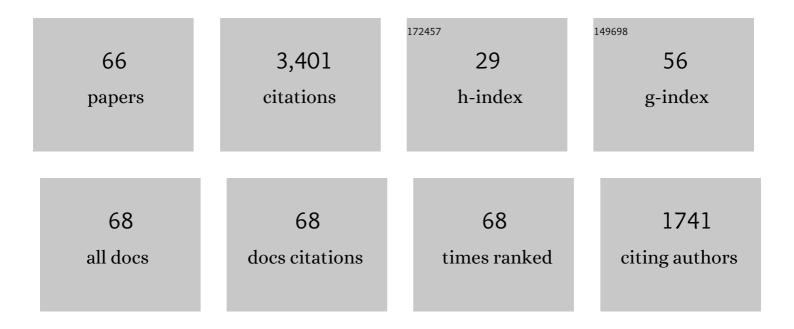
List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	How Does Technology-Enabled Active Learning Affect Undergraduate Students' Understanding of Electromagnetism Concepts?. Journal of the Learning Sciences, 2005, 14, 243-279.	2.9	350
2	Higher Order Thinking Skills and Low-Achieving Students: Are They Mutually Exclusive?. Journal of the Learning Sciences, 2003, 12, 145-181.	2.9	347
3	Enhancing undergraduate students' chemistry understanding through project-based learning in an IT environment. Science Education, 2005, 89, 117-139.	3.0	203
4	Question-posing capability as an alternative evaluation method: Analysis of an environmental case study. Journal of Research in Science Teaching, 1999, 36, 411-430.	3.3	185
5	Teaching biotechnology through case studies?can we improve higher order thinking skills of nonscience majors?. Science Education, 2003, 87, 767-793.	3.0	146
6	Multidimensional analysis system for quantitative chemistry problems: Symbol, macro, micro, and process aspects. Journal of Research in Science Teaching, 2003, 40, 278-302.	3.3	120
7	Title is missing!. Journal of Science Education and Technology, 1999, 8, 257-271.	3.9	103
8	Teaching Thinking Skills in Context-Based Learning: Teachers' Challenges and Assessment Knowledge. Journal of Science Education and Technology, 2012, 21, 207-225.	3.9	103
9	Chemical understanding and graphing skills in an honors caseâ€based computerized chemistry laboratory environment: The value of bidirectional visual and textual representations. Journal of Research in Science Teaching, 2008, 45, 219-250.	3.3	102
10	Formal and informal collaborative projects: Engaging in industry with environmental awareness. Science Education, 2000, 84, 95-113.	3.0	91
11	A Web-Based Chemistry Course as a Means To Foster Freshmen Learning. Journal of Chemical Education, 2003, 80, 1084.	2.3	91
12	Success on Algorithmic and LOCS vs. Conceptual Chemistry Exam Questions. Journal of Chemical Education, 1995, 72, 987.	2.3	88
13	Applications of Systems Thinking in STEM Education. Journal of Chemical Education, 2019, 96, 2742-2751.	2.3	86
14	From nationwide standardized testing to school-based alternative embedded assessment in Israel: Students' performance in the matriculation 2000 project. Journal of Research in Science Teaching, 2003, 40, 34-52.	3.3	73
15	Perceptions of STEM alumni and students on developing 21st century skills through methods of teaching and learning. Studies in Educational Evaluation, 2021, 70, 101002.	2.3	66
16	Question Posing, Inquiry, and Modeling Skills of Chemistry Students in the Case-Based Computerized Laboratory Environment. International Journal of Science and Mathematics Education, 2009, 7, 597-625.	2.5	62
17	Learning quantum chemistry via a visual-conceptual approach: students' bidirectional textual and visual understanding. Chemistry Education Research and Practice, 2014, 15, 297-310.	2.5	62
18	How does STEM context-based learning work: what we know and what we still do not know. International Journal of Science Education, 2018, 40, 1095-1107.	1.9	62

#	Article	IF	CITATIONS
19	Metacognition in chemical education: question posing in the case-based computerized learning environment. Instructional Science, 2009, 37, 403-436.	2.0	58
20	Caseâ€based Longâ€ŧerm Professional Development of Science Teachers. International Journal of Science Education, 2005, 27, 1413-1446.	1.9	55
21	How Much Have They Retained? Making Unseen Concepts Seen in a Freshman Electromagnetism Course at MIT. Journal of Science Education and Technology, 2007, 16, 299-323.	3.9	55
22	Context-based learning and metacognitive prompts for enhancing scientific text comprehension. International Journal of Science Education, 2018, 40, 1198-1220.	1.9	55
23	COMPUTERIZED MOLECULAR MODELING - THE NEW TECHNOLOGY FOR ENHANCING MODEL PERCEPTION AMONG CHEMISTRY EDUCATORS AND LEARNERS. Chemistry Education Research and Practice, 2000, 1, 109-120.	2.5	48
24	Trends and perceptions of choosing chemistry as a major and a career. Chemistry Education Research and Practice, 2020, 21, 668-684.	2.5	47
25	Assessing high school chemistry students' modeling sub-skills in a computerized molecular modeling learning environment. Instructional Science, 2012, 40, 69-91.	2.0	46
26	Science Education in Primary Schools: Is an Animation Worth a Thousand Pictures?. Journal of Science Education and Technology, 2011, 20, 608-620.	3.9	44
27	Development and implementation of inquiry-based and computerized-based laboratories: reforming high school chemistry in Israel. Chemistry Education Research and Practice, 2010, 11, 218-228.	2.5	42
28	Differences and Developments in Attitudes and Self-Efficacy of Prospective Chemistry Teachers Concerning the Use of ICT in Education. Eurasia Journal of Mathematics, Science and Technology Education, 2017, 13, .	1.3	38
29	Graphical Tools for Conceptualizing Systems Thinking in Chemistry Education. Journal of Chemical Education, 2019, 96, 2888-2900.	2.3	37
30	Systems thinking of pre- and in-service science and engineering teachers. International Journal of Science Education, 2019, 41, 248-279.	1.9	34
31	Experiential Engineering Through iGEM—An Undergraduate Summer Competition in Synthetic Biology. Journal of Science Education and Technology, 2011, 20, 156-160.	3.9	33
32	Students' Metacognition and Metacognitive Strategies in Science Education. Innovations in Science Education and Technology, 2018, , 33-64.	0.3	32
33	Career Choice of Undergraduate Engineering Students. Procedia, Social and Behavioral Sciences, 2016, 228, 222-228.	0.5	30
34	The Relationship Between Metacognition and the Ability to Pose Questions in Chemical Education. Contemporary Trends and Issues in Science Education, 2012, , 165-195.	0.5	29
35	Inâ€service chemistry teachers' training: the impact of introducing computer technology on teachers' attitudes and classroom implementation. International Journal of Science Education, 1997, 19, 577-592.	1.9	28
36	Meta-assessment in a project-based systems engineering course. Assessment and Evaluation in Higher Education, 2017, 42, 607-624.	5.6	28

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37	The â€~Mole Environment' studyware: applying multidimensional analysis to quantitative chemistry problems. International Journal of Science Education, 1998, 20, 317-333.	1.9	26
38	Assessing Advanced High School and Undergraduate Students' Thinking Skills: The Chemistry—From the Nanoscale to Microelectronics Module. Journal of Chemical Education, 2014, 91, 1306-1317.	2.3	25
39	A three-attribute transfer skills framework – part I: establishing the model and its relation to chemical education. Chemistry Education Research and Practice, 2013, 14, 363-375.	2.5	24
40	The case of middle and high school chemistry teachers implementing technology: using the concerns-based adoption model to assess change processes. Chemistry Education Research and Practice, 2017, 18, 214-232.	2.5	18
41	Model-Based Systems Thinking: Assessing Engineering Student Teams. IEEE Transactions on Education, 2020, 63, 39-47.	2.4	17
42	Metacognition in Chemistry Education: A Literature Review. Israel Journal of Chemistry, 2019, 59, 583-597.	2.3	16
43	How to promote chemical literacy? On-line question posing and communicating with scientists. Chemistry Education Research and Practice, 2020, 21, 250-266.	2.5	15
44	Choosing Chemistry at Different Education and Career Stages: Chemists, Chemical Engineers, and Teachers. Journal of Science Education and Technology, 2021, 30, 692-705.	3.9	14
45	Assessing teachers' knowledge: incorporating context-based learning in chemistry. Chemistry Education Research and Practice, 2021, 22, 1003-1019.	2.5	12
46	HOCS-PROMOTING ASSESSMENT OF STUDENTS' PERFORMANCE ON ENVIRONMENT-RELATED UNDERGRADUATE CHEMISTRY. Chemistry Education Research and Practice, 2004, 5, 175-184.	2.5	11
47	A three-attribute transfer skills framework – part II: applying and assessing the model in science education. Chemistry Education Research and Practice, 2015, 16, 154-167.	2.5	11
48	FIRST High-School Students and FIRST Graduates: STEM Exposure and Career Choices. IEEE Transactions on Education, 2022, 65, 167-176.	2.4	11
49	Teaching and Assessment Methods: STEM Teachers' Perceptions and Implementation. Eurasia Journal of Mathematics, Science and Technology Education, 2021, 17, em1969.	1.3	11
50	Assessing Novelty and Systems Thinking in Conceptual Models of Technological Systems. IEEE Transactions on Education, 2021, 64, 155-162.	2.4	10
51	STEM Graduate Students' Systems Thinking, Modeling and Scientific Understanding—The Case of Food Production. Applied Sciences (Switzerland), 2020, 10, 7417.	2.5	9
52	Professional Growth of Novice and Experienced STEM Teachers. Journal of Science Education and Technology, 2022, 31, 129-142.	3.9	9
53	How to Outline Objectives for Chemistry Education and how to Assess Them. , 2013, , 37-65.		9
54	Analysis of an Induction Model. Journal of in-Service Education, 1996, 22, 335-356.	0.3	8

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55	Gender-fair assessment of young gifted students' scientific thinking skills. International Journal of Science Education, 2018, 40, 595-620.	1.9	8
56	Transition into Teaching: Second Career Teachers' Professional Identity. Eurasia Journal of Mathematics, Science and Technology Education, 2020, 16, em1891.	1.3	8
57	Mathematics for Computer Science: A Flipped Classroom with an Optional Project. Eurasia Journal of Mathematics, Science and Technology Education, 2020, 16, em1915.	1.3	8
58	The Effect of the FIRST Robotics Program on Its Graduates. Robotics, 2020, 9, 84.	3.5	7
59	"The Mole Environmentâ€Development and Implementation of Studyware. Journal of Chemical Information and Computer Sciences, 1996, 36, 625-628.	2.8	6
60	Toward narrowing the gap between science communication and science education disciplines. Review of Education, 2019, 7, 525-566.	2.1	6
61	Reusable and Sustainable Science and Engineering Education. Journal of Science Education and Technology, 2008, 17, 121-123.	3.9	5
62	Looking through the Eyes of Mentors and Novice Teachers: Perceptions Regarding Mentoring Experiences. Procedia, Social and Behavioral Sciences, 2016, 228, 149-153.	0.5	4
63	STEM Teachers' SWOT Analysis of STEM Education: The Bureaucratic–Professional Conflict. Springer Briefs in Education, 2018, , 1-23.	0.2	3
64	SWOT Analysis of STEM Education in Academia: The Disciplinary versus Cross Disciplinary Conflict. Springer Briefs in Education, 2018, , 25-41.	0.2	2
65	A Holistic Approach to Incorporating Sustainability into Chemistry Education in Israel. ACS Symposium Series, 2020, , 125-160.	0.5	2
66	Context and Implications Document for: Toward narrowing the gap between science communication and science education disciplines. Review of Education, 2019, 7, 567-569.	2.1	0