

Jeffrey R Raker

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

1,120
citations

331670

21
h-index

454955

30
g-index

54
all docs

54
docs citations

54
times ranked

592
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluating the impact of malleable factors on percent time lecturing in gateway chemistry, mathematics, and physics courses. <i>International Journal of STEM Education</i> , 2022, 9, .	5.0	22
2	Effect of a Representative Sample of Internally Calibrated Mental Effort and Polytomously Scored Data on Representing Cognitive Efficiency. <i>Journal of Chemical Education</i> , 2022, 99, 1326-1335.	2.3	0
3	The Postsecondary Inorganic Chemistry Instructional Laboratory Curriculum: Results from a National Survey. <i>Journal of Chemical Education</i> , 2022, 99, 1971-1981.	2.3	9
4	Goals for the Undergraduate Instructional Inorganic Chemistry Laboratory When Course-Based Undergraduate Research Experiences Are Implemented: A National Survey. <i>Journal of Chemical Education</i> , 2022, 99, 4068-4078.	2.3	8
5	Assessment Tools in Context: Results from a National Survey of Postsecondary Chemistry Faculty. <i>Journal of Chemical Education</i> , 2022, 99, 2843-2852.	2.3	7
6	Pedagogies of engagement use in postsecondary chemistry education in the United States: results from a national survey. <i>Chemistry Education Research and Practice</i> , 2021, 22, 30-42.	2.5	15
7	Development of a machine learning-based tool to evaluate correct Lewis acid-base model use in written responses to open-ended formative assessment items. <i>Chemistry Education Research and Practice</i> , 2021, 22, 866-885.	2.5	18
8	What really impacts the use of active learning in undergraduate STEM education? Results from a national survey of chemistry, mathematics, and physics instructors. <i>PLoS ONE</i> , 2021, 16, e0247544.	2.5	47
9	Analyzing explanations of substitution reactions using lexical analysis and logistic regression techniques. <i>Chemistry Education Research and Practice</i> , 2020, 21, 267-286.	2.5	32
10	Adapting the Anchoring Concepts Content Map (ACCM) of ACS Exams by Incorporating a Theme: Merging Green Chemistry and Organic Chemistry. <i>Journal of Chemical Education</i> , 2020, 97, 374-382.	2.3	8
11	Using the Research Literature to Develop an Adaptive Intervention to Improve Student Explanations of an S_N1 Reaction Mechanism. <i>Journal of Chemical Education</i> , 2020, 97, 3551-3562.	2.3	26
12	Exploring Student Affective Experiences in Inorganic Chemistry Courses: Understanding Student Anxiety and Enjoyment. <i>ACS Symposium Series</i> , 2020, , 117-129.	0.5	2
13	The American Chemical Society Exams Institute Undergraduate Chemistry Anchoring Concepts Content Map V: Analytical Chemistry. <i>Journal of Chemical Education</i> , 2020, 97, 1530-1535.	2.3	13
14	Building Community: A Reflection on the Interactive Online Network of Inorganic Chemists. <i>ACS Symposium Series</i> , 2020, , 131-139.	0.5	5
15	Evaluation of Subset Norm Stability in ACS General Chemistry Exams. <i>Journal of Chemical Education</i> , 2019, 96, 2132-2140.	2.3	0
16	Development and evaluation of a Lewis acid-base tutorial for use in postsecondary organic chemistry courses. <i>Canadian Journal of Chemistry</i> , 2019, 97, 711-721.	1.1	21
17	Development of a Method for Imputation of Missing Data Using ACS Exams as a Prototype. <i>Journal of Chemical Education</i> , 2019, 96, 1083-1095.	2.3	0
18	Self-beliefs in organic chemistry: Evaluation of a reciprocal causation, cross-lagged model. <i>Journal of Research in Science Teaching</i> , 2019, 56, 598-618.	3.3	14

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19	Development and evaluation of the organic chemistry-specific achievement emotions questionnaire (<sc>AEQ</sc>). Journal of Research in Science Teaching, 2019, 56, 163-183.	3.3	16
20	Testing a reciprocal causation model between anxiety, enjoyment and academic performance in postsecondary organic chemistry. Educational Psychology, 2018, 38, 838-856.	2.7	25
21	Beliefs about learning and enacted instructional practices: An investigation in postsecondary chemistry education. Journal of Research in Science Teaching, 2018, 55, 1111-1133.	3.3	52
22	The ACS Exams Institute Undergraduate Chemistry Anchoring Concepts Content Map IV: Physical Chemistry. Journal of Chemical Education, 2018, 95, 238-241.	2.3	41
23	Historical Analysis of the Inorganic Chemistry Curriculum Using ACS Examinations as Artifacts. Journal of Chemical Education, 2018, 95, 726-733.	2.3	13
24	Evaluating student motivation in organic chemistry courses: moving from a lecture-based to a flipped approach with peer-led team learning. Chemistry Education Research and Practice, 2018, 19, 251-264.	2.5	46
25	Coupling Eye Tracking with Verbal Articulation in the Evaluation of Assessment Materials Containing Visual Representations. ACS Symposium Series, 2018, , 165-181.	0.5	1
26	Assessment in Postsecondary Chemistry Education: A Comparison of Course Types. Assessment Update, 2018, 30, 1-16.	0.2	2
27	Alignment of ACS Inorganic Chemistry Examination Items to the Anchoring Concepts Content Map. Journal of Chemical Education, 2018, 95, 1468-1476.	2.3	5
28	Flipped classroom use in chemistry education: results from a survey of postsecondary faculty members. Chemistry Education Research and Practice, 2018, 19, 1307-1318.	2.5	30
29	Using Lexical Analysis To Predict Lewis Acid-Base Model Use in Responses to an Acid-Base Proton-Transfer Reaction. Journal of Chemical Education, 2018, 95, 1267-1275.	2.3	33
30	What We Don't Test: What an Analysis of Unreleased ACS Exam Items Reveals about Content Coverage in General Chemistry Assessments. Journal of Chemical Education, 2017, 94, 418-428.	2.3	15
31	Chasm Crossed? Clicker Use in Postsecondary Chemistry Education. Journal of Chemical Education, 2017, 94, 549-557.	2.3	37
32	Improved Student Learning through a Faculty Learning Community: How Faculty Collaboration Transformed a Large-Enrollment Course from Lecture to Student Centered. CBE Life Sciences Education, 2016, 15, ar22.	2.3	37
33	Using the ACS Anchoring Concepts Content Map (ACCM) To Aid in the Evaluation and Development of ACS General Chemistry Exam Items. ACS Symposium Series, 2016, , 179-194.	0.5	8
34	Self-efficacy and academic performance in first-semester organic chemistry: testing a model of reciprocal causation. Chemistry Education Research and Practice, 2016, 17, 973-984.	2.5	46
35	Are Content Tests All the Assessment We Need?. ACS Symposium Series, 2015, , 257-275.	0.5	1
36	Foundation Coursework in Undergraduate Inorganic Chemistry: Results from a National Survey of Inorganic Chemistry Faculty. Journal of Chemical Education, 2015, 92, 973-979.	2.3	48

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37	In-Depth Coursework in Undergraduate Inorganic Chemistry: Results from a National Survey of Inorganic Chemistry Faculty. <i>Journal of Chemical Education</i> , 2015, 92, 980-985.	2.3	33
38	Examining the Impact of Chemistry Education Research Articles from 2007 through 2013 by Citation Counts. <i>Journal of Chemical Education</i> , 2015, 92, 1299-1305.	2.3	8
39	Great Expectations: Using an Analysis of Current Practices To Propose a Framework for the Undergraduate Inorganic Curriculum. <i>Inorganic Chemistry</i> , 2015, 54, 8859-8868.	4.0	26
40	Building a Database for the Historical Analysis of the General Chemistry Curriculum Using ACS General Chemistry Exams as Artifacts. <i>Journal of Chemical Education</i> , 2015, 92, 230-236.	2.3	19
41	Exploring the Apparent Motivational Impact of Resurrection Points from Final Exam Performance. <i>ACS Symposium Series</i> , 2014, , 115-131.	0.5	0
42	A Research Module for the Organic Chemistry Laboratory: Multistep Synthesis of a Fluorous Dye Molecule. <i>Journal of Chemical Education</i> , 2014, 91, 126-130.	2.3	33
43	Investigating Faculty Familiarity with Assessment Terminology by Applying Cluster Analysis To Interpret Survey Data. <i>Journal of Chemical Education</i> , 2014, 91, 1145-1151.	2.3	17
44	Research and Teaching: Training the Foot Soldiers of Inquiry: Development and Evaluation of a Graduate Teaching Assistant Learning Community. <i>Journal of College Science Teaching</i> , 2014, 044, .	0.4	9
45	Validating Chemistry Faculty Members'™ Self-Reported Familiarity with Assessment Terminology. <i>Journal of Chemical Education</i> , 2013, 90, 1130-1136.	2.3	15
46	Polytomous versus Dichotomous Scoring on Multiple-Choice Examinations: Development of a Rubric for Rating Partial Credit. <i>Journal of Chemical Education</i> , 2013, 90, 1310-1315.	2.3	13
47	Adaptation of an Instrument for Measuring the Cognitive Complexity of Organic Chemistry Exam Items. <i>Journal of Chemical Education</i> , 2013, 90, 1290-1295.	2.3	21
48	The ACS Exams Institute Undergraduate Chemistry Anchoring Concepts Content Map II: Organic Chemistry. <i>Journal of Chemical Education</i> , 2013, 90, 1443-1445.	2.3	78
49	Using Structural Equation Modeling To Understand Chemistry Faculty Familiarity of Assessment Terminology: Results from a National Survey. <i>Journal of Chemical Education</i> , 2013, 90, 981-987.	2.3	16
50	A Historical Analysis of the Curriculum of Organic Chemistry Using ACS Exams as Artifacts. <i>Journal of Chemical Education</i> , 2013, 90, 1437-1442.	2.3	38
51	Designing undergraduate-level organic chemistry instructional problems: Seven ideas from a problem-solving study of practicing synthetic organic chemists. <i>Chemistry Education Research and Practice</i> , 2012, 13, 277-285.	2.5	21
52	The biochemistry tetrahedron and the development of the taxonomy of biochemistry external representations (TOBER). <i>Chemistry Education Research and Practice</i> , 2012, 13, 296-306.	2.5	32
53	Problem types in synthetic organic chemistry research: Implications for the development of curricular problems for second-year level organic chemistry instruction. <i>Chemistry Education Research and Practice</i> , 2012, 13, 179-185.	2.5	23
54	Benchmarking problems used in second year level organic chemistry instruction. <i>Chemistry Education Research and Practice</i> , 2010, 11, 25-32.	2.5	15