Nicole M Becker

List of Publications by Year
in descending order

26 papers	644 citations	687363 13 h-index	580821 25 g-index
26 all docs	26 docs citations	26 times ranked	334 citing authors

#	Article	IF	Citations
1	Beyond instructional practices: Characterizing learning environments that support students in explaining chemical phenomena. Journal of Research in Science Teaching, 2022, 59, 841-875.	3.3	11
2	A Review of Research on the Teaching and Learning of Chemical Bonding. Journal of Chemical Education, 2022, 99, 2451-2464.	2.3	14
3	Evaluation of the studentsâ€™ understanding of models in science (SUMS) for use in undergraduate chemistry. Chemistry Education Research and Practice, 2021, 22, 62-76.	2.5	7
4	From Ideas to Items: A Primer on the Development of Ordered Multiple-Choice Items for Investigating the Progression of Learning in Higher Education STEM. Journal of Chemical Education, 2021, 98, 714-729.	2.3	3
5	Making sense of sensemaking: using the sensemaking epistemic game to investigate student discourse during a collaborative gas law activity. Chemistry Education Research and Practice, 2021, 22, 328-346.	2.5	7
6	You Are What You Assess: The Case for Emphasizing Chemistry on Chemistry Assessments. Journal of Chemical Education, 2021, 98, 2490-2495.	2.3	28
7	Undergraduate Chemistry Studentsâ€™ Epistemic Criteria for Scientific Models. Journal of Chemical Education, 2020, 97, 16-26.	2.3	6
8	Mapping undergraduate chemistry students' epistemic ideas about models and modeling. Journal of Research in Science Teaching, 2020, 57, 794-824.	3.3	20
9	Exploring the Productive Use of Metonymy: Applying Coordination Class Theory to Investigate Student Conceptions of Rate in Relation to Reaction Coordinate Diagrams. Journal of Chemical Education, 2020, 97, 2065-2077.	2.3	7
10	Analyzing Studentsâ€™ Construction of Graphical Models: How Does Reaction Rate Change Over Time?. Journal of Chemical Education, 2020, 97, 3948-3956.	2.3	5
11	A Review of Research on Process Oriented Guided Inquiry Learning: Implications for Research and Practice. Journal of Chemical Education, 2020, 97, 3506-3520.	2.3	31
12	Supporting Engagement in Metamodeling Ideas in General Chemistry: Development and Validation of Activities Designed Using Process Oriented Guided Inquiry Learning Criteria. Journal of Chemical Education, 2020, 97, 4276-4286.	2.3	3
13	Studentsâ€™ interpretation and use of graphical representations: insights afforded by modeling the varied population schema as a coordination class. Chemistry Education Research and Practice, 2020, 21, 536-560.	2.5	12
14	Undergraduate Chemistry Studentsâ€™ Conceptualization of Models in General Chemistry. Journal of Chemical Education, 2019, 96, 455-468.	2.3	21
15	A Modeling Perspective on Supporting Studentsâ€™ Reasoning with Mathematics in Chemistry. ACS Symposium Series, 2019, , 9-24.	0.5	5
16	Evaluating students' abilities to construct mathematical models from data using latent class analysis. Chemistry Education Research and Practice, 2018, 19, 375-391.	2.5	12
17	Engaging students in analyzing and interpreting data to construct mathematical models: an analysis of studentsâ€™ reasoning in a method of initial rates task. Chemistry Education Research and Practice, 2017, 18, 798-810.	2.5	42
18	Characterizing Studentsâ€™ Mechanistic Reasoning about London Dispersion Forces. Journal of Chemical Education, 2016, 93, 1713-1724.	2.3	64

#	Article	IF	Citations
19	Translating across macroscopic, submicroscopic, and symbolic levels: the role of instructor facilitation in an inquiry-oriented physical chemistry class. Chemistry Education Research and Practice, 2015, 16, 769-785.	2.5	63
20	Discourse Analysis as a Tool To Examine Teaching and Learning in the Classroom. ACS Symposium Series, 2014, , 61-81.	0.5	8
21	Energy in Chemical Systems: An Integrated Approach. , 2014, , 301-316.		8
22	College chemistry students' understanding of potential energy in the context of atomicâ€“molecular interactions. Journal of Research in Science Teaching, 2014, 51, 789-808.	3.3	39
23	Reasoning using particulate nature of matter: An example of a sociochemical norm in a university-level physical chemistry class. Chemistry Education Research and Practice, 2013, 14, 81-94.	2.5	82
24	The biochemistry tetrahedron and the development of the taxonomy of biochemistry external representations (TOBER). Chemistry Education Research and Practice, 2012, 13, 296-306.	2.5	32
25	Students' understanding of mathematical expressions in physical chemistry contexts: An analysis using Sherinâ€™s symbolic forms. Chemistry Education Research and Practice, 2012, 13, 209-220.	2.5	77
26	ADAPTING A METHODOLOGY FROM MATHEMATICS EDUCATION RESEARCH TO CHEMISTRY EDUCATION RESEARCH: DOCUMENTING COLLECTIVE ACTIVITY. International Journal of Science and Mathematics Education, 2012, 10, 193-211.	2.5	37