Hannah Sevian

List of Publications by Year
in descending order

42 papers	855 citations	516561 16 h-index	501076 28 g-index
44 all docs	44 docs citations	44 times ranked	600 citing authors

#	Article	IF	Citations
1	Qualifying domains of student struggle in undergraduate general chemistry laboratory. Chemistry Education Research and Practice, 2022, 23, 12-37.	1.4	6
2	Development of a framework to capture abstraction in physical chemistry problem solving. Chemistry Education Research and Practice, 2022, 23, 55-77.	1.4	1
3	Teacher dilemmas as sources of change and development. Teaching and Teacher Education, 2022, 112, 103629.	1.6	9
4	Investigating How Teachersâ€™ Formative Assessment Practices Change Across a Year. Journal of Chemical Education, 2021, 98, 2799-2808.	1.1	3
5	Exploring Variation in Ways of Thinking About and Acting to Control a Chemical Reaction. Journal of Chemical Education, 2021, 98, 3714-3722.	1.1	1
6	Analyzing Chemistry Teachersâ€™ Formative Assessment Practices Using Formative Assessment Portfolio Chapters. Journal of Chemical Education, 2020, 97, 4255-4267.	1.1	3
7	Conceptual Profile of Substance. Science and Education, 2020, 29, 1317-1360.	1.7	7
8	Teachersâ€™ Noticing, Interpreting, and Acting on Studentsâ€™ Chemical Ideas in Written Work. Journal of Chemical Education, 2020, 97, 3478-3489.	1.1	10
9	Connecting Theory to Life: Learning Greener Electrochemistry by Taking Apart a Common Battery. Journal of Chemical Education, 2020, 97, 934-942.	1.1	6
10	Characterizing the formative assessment enactment of experienced science teachers. Science Education, 2020, 104, 290-325.	1.8	32
11	Looking into the Black Box: Using Gaze and Pupillometric Data to Probe How Cognitive Load Changes with Mental Tasks. Journal of Chemical Education, 2019, 96, 830-840.	1.1	7
12	A Design-Based Process in Characterizing Experienced Teachersâ€™ Formative Assessment Enactment in Science Classrooms. Contributions From Science Education Research, 2019, , 325-337.	0.4	4
13	This mechanistic step is â€œ<i>productive</i>â€ organic chemistry students' backward-oriented reasoning. Chemistry Education Research and Practice, 2018, 19, 42-59.	1.4	49
14	Teaching About Energy. Science and Education, 2018, 27, 863-893.	1.7	7
15	Probing the Relevance of Chemical Identity Thinking in Biochemical Contexts. CBE Life Sciences Education, 2018, 17, ar58.	1.1	2
16	Learning progressions and teaching sequences â€“ old wine in new skins?. Chemistry Education Research and Practice, 2018, 19, 989-997.	1.4	10
17	Comparison of learning in two context-based university chemistry classes. International Journal of Science Education, 2018, 40, 1239-1262.	1.0	16
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.	1.0	62

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19	Epistemic games in substance characterization. Chemistry Education Research and Practice, 2018, 19, 1029-1054.	1.4	6
20	Capturing Chemical Identity Thinking. Journal of Chemical Education, 2017, 94, 137-148.	1.1	7
21	Capturing studentsâ€™ abstraction while solving organic reaction mechanism problems across a semester. Chemistry Education Research and Practice, 2017, 18, 169-190.	1.4	26
22	Better Formative Assessment. The Science Teacher, 2017, 084, .	0.1	9
23	Uncovering Implicit Assumptions: a Large-Scale Study on Studentsâ€™ Mental Models of Diffusion. Research in Science Education, 2015, 45, 807-840.	1.4	18
24	Use of representation mapping to capture abstraction in problem solving in different courses in chemistry. Chemistry Education Research and Practice, 2015, 16, 429-446.	1.4	19
25	Uncovering Chemical Thinking in Studentsâ€™ Decision Making: A Fuel-Choice Scenario. Journal of Chemical Education, 2015, 92, 1610-1618.	1.1	17
26	Learning Chemistry to Enrich Studentsâ€™ Views on the World they Live In. , 2015, , 55-78.		6
27	Reasoning about benefits, costs, and risks of chemical substances: mapping different levels of sophistication. Chemistry Education Research and Practice, 2015, 16, 377-392.	1.4	19
28	Atoms versus Bonds: How Students Look at Spectra. Journal of Chemical Education, 2015, 92, 1996-2005.	1.1	31
29	Chemistry in Past and New Science Frameworks and Standards: Gains, Losses, and Missed Opportunities. Journal of Chemical Education, 2014, 91, 24-29.	1.1	19
30	Rethinking chemistry: a learning progression on chemical thinking. Chemistry Education Research and Practice, 2014, 15, 10-23.	1.4	199
31	Collaborative Professional Development in Chemistry Education Research: Bridging the Gap between Research and Practice. Journal of Chemical Education, 2014, 91, 1401-1408.	1.1	30
32	What is this Substance? What Makes it Different? Mapping Progression in Studentsâ€™ Assumptions about Chemical Identity. International Journal of Science Education, 2014, 36, 2438-2461.	1.0	27
33	Development of Understanding in Chemistry. Contributions From Science Education Research, 2014, , 291-306.	0.4	3
34	Implicit Assumptions and Progress Variables in a Learning Progression About Structure and Motion of Matter. Innovations in Science Education and Technology, 2013, , 69-94.	0.1	8
35	An Urgent Call for Academic Chemists To Engage in Precollege Science Education. Journal of Chemical Education, 2011, 88, 248-250.	1.1	10
36	Assessing Secondary and College Studentsâ€™ Implicit Assumptions about the Particulate Nature of Matter: Development and Validation of the Structure and Motion of Matter Survey. Journal of Chemical Education, 2011, 88, 1359-1365.	1.1	24

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37	Identity and biography as mediators of science and mathematics facultyâ€™s involvement in K-12 service. Cultural Studies of Science Education, 2010, 5, 743-766.	0.9	9
38	Incrementally Approaching an Inquiry Lab Curriculum: Can Changing a Single Laboratory Experiment Improve Student Performance in General Chemistry?. Journal of Chemical Education, 2009, 86, 498.	1.1	37
39	Analysing how Scientists Explain their Research: A rubric for measuring the effectiveness of scientific explanations. International Journal of Science Education, 2008, 30, 1441-1467.	1.0	42
40	Connecting Solubility, Equilibrium, and Periodicity in a Green, Inquiry Experiment for the General Chemistry Laboratory. Journal of Chemical Education, 2008, 85, 251.	1.1	11
41	Teaching Lab Report Writing through Inquiry: A Green Chemistry Stoichiometry Experiment for General Chemistry. Journal of Chemical Education, 2006, 83, 1039.	1.1	25
42	Using Organic Light-Emitting Electrochemical Thin-Film Devices To Teach Materials Science. Journal of Chemical Education, 2004, 81, 1620.	1.1	13