

**List of National Publication
Chemistry Education Study Program 2021**

No	Year	Publication's Title	Authors	Journal's Name	Kind of Publications	Link Access
1	2021	Development of Chem On Phone in a Problem-Based Learning Model to Increase Student Learning Motivation	Prof. Dr. Sudding, M.S.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/20065
2	2021	The Effect of Making Mind Mapping at the End of Learning in the Guided Inquiry Learning Model on Learning Outcomes of Class XI IPA SMA Kristen Gamaliel Makassar (Study on Topic Material Reaction rate)	Prof. Dr. Sudding, M.S.	Chemedu	National Journal	https://ojs.unm.ac.id/ChemEdu/article/view/22400
3	2021	Isolation, identification and bioactivity tests of secondary metabolite compounds methanol extract of java wood leaves (<i>lannea coromandelica</i>)	Prof. Dr. Sudding, M.S.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/26206
4	2021	Effect of fermentation time on ethanol level from palm oil fiber waste from alkali pretreatment and acid hydrolysis	Prof. Dr. Sudding, M.S.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/21729
5	2021	The Effect of Use Virtual Labs Media in Problem Based Learning (PBL) Model Toward Students Learning Outcomes in Class XI MIA SMA Negeri 1 Jeneponto (Study on Acid Base Titration)	Prof. Dr. Pince Salempa, M.Si.	Jurnal Penelitian Pendidikan Kimia: Kajian Hasil Penelitian Pendidikan Kimia	National Journal	https://ejournal.unsri.ac.id/index.php/jurpenkim/article/view/16425
6	2021	Development of Interactive Multimedia on Hydrolysis Material in the Discovery Learning Model	Prof. Dr. Pince Salempa, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/26358
7	2021	Development of Learning Devices for Discovery Learning Model Based on Indonesian National Work Competency Standards (SKKNI)	Prof. Dr. Pince Salempa, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/20148

8	2021	The Effect of Differentiated Science Inquiry Learning Model on Students' Chemistry Learning Outcomes	Prof. Dr. Pince Salempa, M.Si.	National Seminar Community Service	Proceeding of National Seminar Research and Community Service	https://ojs.unm.ac.id/semnaslemlit/article/viewFile/25453/12764
9	2021	Development of Augmented Reality-Based Chemistry Learning Modules on Chemical Bonds	Prof. Dr. Muhammad Danial, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/20063
10	2021	Development of Chemical Bond Learning Devices with the Jigsaw Cooperative Model to Improve Learning Outcomes of High School Students	Prof. Dr. Muhammad Danial, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/20149
11	2021	Development of NHT-Type Cooperative Devices Based on a Scientific Approach to Acid-Base Material to Improve Students' Scientific Attitudes and Cognitive Learning Outcomes	Prof. Dr. Muhammad Danial, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/20150
12	2021	Development of e-LKPD Based Discovery Learning Model on Acid-Base Basic Material	Prof. Dr. Muhammad Danial, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/26363
13	2021	Analysis of the influence of service quality on customer satisfaction using structural equation modeling method in shopperba yogya purwakarta	Prof. Dr. Muhammad Danial, M.Si.	Teknologika Journal	National Journal	https://jurnal.wastukanca.ac.id/index.php/teknologika/article/view/114
14	2021	Application of the Cooperative Learning Model of the NHT (Number Head Together) type to Increase the Activities and Learning Outcomes of Class X6 MAN 1 Makassar Students on the Subject Material of Reduction-Oxidation Reactions	Drs. Alimin, M.S.	Chemedu	National Journal	https://ojs.unm.ac.id/CheMedu/article/view/20427
15	2021	The Influence of the Discovery Learning Learning Model on the Motivation and Learning Outcomes of Class X MIPA Students of SMAN 3	Drs. Alimin, M.S.	Chemedu	National Journal	https://ojs.unm.ac.id/CheMedu/article/view/22394

		Bantaeng (Study on the Main Material of Atomic Structure)				
16	2021	Relationship between Emotional Intelligence and Learning Outcomes of Class XI IPA Students at SMAN 8 Makassar	Drs. Alimin, M.S.	Chemedu	National Journal	https://ojs.unm.ac.id/Che mEdu/article/view/26617
17	2021	Effectiveness of Impregnated Fe ₂ O ₃ Catalyst in Gelcasting Porous Ceramics in Phenol Photodegradation Process	Dra. Sumiati Side, M.Si.	Indonesian Journal of Fundamental Sciences	National Journal	https://ojs.unm.ac.id/pinis i/article/view/26301
18	2021	Effect of fermentation time on ethanol level from palm oil fiber waste from alkali pretreatment and acid hydrolysis	Dra. Sumiati Side, M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/che mica/article/view/21729
19	2021	Ph determination of rice husk metasilicate gel as a growth media for a single crystal of calcium tartratetrahydrate (CaC ₄ H ₄ O ₆ .4H ₂ O)	Dra. Ramdani, M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/che mica/article/view/21734
20	2021	The Effect of Quipper School E-Learning Media on Problem-Based Learning to Increase Student Motivation and Learning Outcomes	Dr. Taty Sulastry, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/ article/view/26360
21	2021	Development of Inquiry Model Acid-Base Identification Worksheet Using Sets Approach	Drs. Muhammad Jasri Djangi, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che mEdu/article/view/26611
22	2021	The Effect of Using Zooming Presentation Media in the Guided Inquiry Learning Model on the Learning Outcomes of Class X Students of SMA Negeri 2 Parepare (Study on the Main Material of Chemical Bonds)	Drs. Muh Yunus, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che mEdu/article/view/20425
23	2021	Comparison of problem-based learning model and direct learning model on learning outcomes students in class xi ipa sma negeri 1 pancarijang	Drs. Muh Yunus, M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/che mica/article/view/21724

		kab. Sidrap (study on the subject material of salt hydrolysis)				
24	2021	The Influence of the Mind Mapping Method on the Student Facilitator and Explaining Learning Model on the Learning Outcomes of Class X Students of SMA Negeri 5 Tanralili (Study on Basic Materials of Hydrocarbons)	Dr. Halimah Husain, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/26614
25	2021	The effect of the addition of jackfruit seed flour (artocarpus heterophyllus lamk.) As a substitution of tapioca flour on the quality of chicken meat meatball	Dr. Halimah Husain, M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/26202
26	2021	The effect of the problem-based learning model on students' learning outcomes in class xi mia sman 2 makassar (study on the subject material rate of reaction)	Dr. Muhammad Anwar, M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/26213
27	2021	The Effect of Giving Quizzes at the Beginning of the Meeting in the Guided Inquiry Learning Model on Learning Outcomes of Class XI MIA Students of SMAN 10 Gowa (Study on Basic Acid and Base Materials)	Dr. Muhammad Anwar, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/22395
28	2021	The Effect of Android-Based Mobile Learning Media "ChemOndro" on the Discovery Learning Model on Learning Outcomes of Class X Students of SMA Negeri 8 Bone (Study on the Main Material of Electrolyte and Non-electrolyte Solutions)	Dr. Army Auliah, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/22397
29	2021	The effect of addition of seaweed (eucheuma cottonii) on dry noodle quality	Dr. Army Auliah, M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/21725

30	2021	The Effect of LKPD on Pair Checks Type Cooperative Learning Model on Learning Outcomes of Class X Students of SMA Negeri 1 Enrekang, Enrekang Regency (Study on the Main Material of Oxidation-Reduction Reactions)	Dr. Army Auliah, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/20426
31	2021	Comparison of the Problem Solving Learning Model and the Direct Learning Model on the Learning Outcomes of Class X Students of SMA Negeri 3 Makassar (Study on the Main Material of Stoichiometry)	Dr. Sugiarti, M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/26657
32	2021	Development of Interactive Multimedia on Hydrolysis Material in the Discovery Learning Model	Dr. Sugiarti, M.Si.	Chemistry Education Review (CER)	National Journal	https://ojs.unm.ac.id/CER/article/view/26358
33	2021	Application of the Discovery Learning Model to Improve Learning Activities and Critical Thinking Skills of Class XI MIA 5 MAN 1 Makassar Students (Studies on the Subject of Thermochemistry)	Dr. Netti Herawati, S.Pd., M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/26609
34	2021	Synthesis of silver nanoparticles using green tea (camellia sinensis) leaf extract bioreductor with microwave irradiation	Dr. Netti Herawati, S.Pd., M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/26207
35	2021	Effectiveness of using spectronics 20 d+ in the determination of nitrat levels of well water using the reduction of cadmium method	Sitti Faika, M.Sc., Ph.D., Apt.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/26700
36	2021	Total phenolic content of ethanol and ethyl acetate extracts of noni fruit (morinda citrifolia, l.) And bioactivity tests on escherichia coli bacteria	Maryono, S.Si., MM., Apt.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/21731
37	2021	Application of the Cooperative Learning Model of the NHT (Number	Maryono, S.Si., MM., Apt.	Chemedu	National Journal	https://ojs.unm.ac.id/Che_mEdu/article/view/20427

		Head Together) type to Increase the Activities and Learning Outcomes of Class X6 MAN 1 Makassar Students on the Subject Material of Reduction-Oxidation Reactions				
38	2021	Improving Science Learning Activities and Outcomes Through Problem Based Learning Learning Models	Dr. Jusniar, S.Pd., M.Pd.	Jurnal Profesi Kependidikan	National Journal	https://ojs.unm.ac.id/JPK/article/download/27385/13615
39	2021	Analysis of Students' Creative Thinking Ability through the Application of the Creative Problem Solving (CPS) Model for Class XI MIA2 SMAN 1 Tellu Siattinge (Study on the Subject of Thermochemistry)	Dr. Jusniar, S.Pd., M.Pd.	Chemedu	National Journal	https://ojs.unm.ac.id/CheMEdU/article/view/26606
40	2021	Isolation and identification of secondary metabolite compounds n-hexane extract of the meniran plant (phyllanthus niruri linn.)	Dr. Jusniar, S.Pd., M.Pd.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/21730
41	2021	Strengthening Pedagogical Content Knowledge of Prospective Chemistry Teacher: Metacognitive Based Preparation Program for Students' Self-Efficacy	Dr. Eda Lolo Allo, S.Pd, M.Pd.	Educhemia	National Journal	https://jurnal.untirta.ac.id/index.php/EduChemia/article/view/9113
42	2021	Development of Learning Cycle 7E Oriented e-LKPD on Seed Germination Sub-Material to Improve Science Process Skills	Diana Eka Pratiwi, S.Si., M.Si.	Bioedu	National Journal	https://ejournal.unesa.ac.id/index.php/bioedu/article/view/38573
43	2021	Synthesis and characterization of bioplastics made from chitosan combined using glycerol plasticizer	Diana Eka Pratiwi, S.Si., M.Si.	Indonesian Journal of Fundamental Sciences	National Journal	https://ojs.unm.ac.id/pinisi/article/view/26348
44	2021	The Effect of Using Quizlet Media on Teams Games Tournament Type Cooperative Learning Material on Learning Outcomes of Class X Students of East Rea State Vocational High School on the Subject Matter of	Hardin, S.Si., S.Pd., M.Si.	Chemedu	National Journal	https://ojs.unm.ac.id/CheMEdU/article/view/26625

		Atomic Structure, Periodic System and Chemical Bonds				
45	2021	Improving Lecturer's Understanding of Recognition of Forms of Independent Learning Activities Independent Campus Learning	Ahmad Fudhail Majid, S.Pd., M.Si.	National Seminar Community Service	Proceeding of National Seminar Research and Community Service	https://ojs.unm.ac.id/semnaslpm/article/view/26338
46	2021	Review: the use of heterogenic catalysts in biodiesel production	Gusma Harfiana Abbas, S.Si., M.Si.	Chemica	National Journal	https://ojs.unm.ac.id/chemica/article/view/26406