

18.240.0003 ADITYA PRADANA

MEDIA PEMBELAJARAN KIMIA TENTANG REAKSI REDOKS BERBASIS MULTIMEDIA STUDI KASUS DI SMA N 1 COMAL, di bawah bimbingan Arief Soma Darmawan, ST, M.Kom, Tri Pudji Wahjuningsih, SE, M.Si.

### ABSTRAK

*Dalam mempelajari reaksi redoks harus betul – betul mengerti agar dapat menyetarakan reaksi tersebut dengan benar. Untuk media yang digunakan pada buku paket masih tergolong kurang karena terbatasnya materi. Hal ini dilihat dari kuesioner yang menyimpulkan bahwa sebanyak 66% siswa sulit mengerti untuk mempelajari materi reaksi redoks pada buku paket. Maka di bangunlah “Media pembelajaran kimia tentang reaksi redoks berbasis multimedia studi kasus di SMA 1 Comal” guna mempermudah siswa dalam mempelajari reaksi redoks. Metode pengembangan sistem menggunakan MDLC (Multimedia Development Life Cycle) menurut (Sutopo 2012) yang terdiri dari 6 tahapan yaitu tahapan concept (konsep), design (desain), material collecting (pengumpulan bahan), assembly (pembuatan), testing (pengujian), dan distribution (distribusi). Dalam media pembelajaran ini, digunakan alat pengembangan sistem menggunakan struktur navigasi, flowchart, dan LKT (Lembar Kerja Tampilan). Media yang dibangun dapat menampilkan animasi yang menjelaskan reaksi dan terdapat dubbing sound yang membantu memperjelas materi. Media pembelajaran ini telah diuji menggunakan metode pengujian GUI (Graphic User Interface) dan UAT (User Acceptance Test) yang menyimpulkan bahwa media sudah sesuai dengan kebutuhan pengguna. Melalui serangkaian tahapan pengembangan sistem dan pengujian maka telah dihasilkan “Media pembelajaran kimia tentang reaksi redoks berbasis multimedia studi kasus di SMA 1 Comal” yang dapat digunakan sebagai media bantu siswa dalam mempelajari reaksi redoks secara mandiri.*

**Kata Kunci: Media pembelajaran kimia, Reaksi redoks, Multimedia**

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LEARNING MEDIA CHEMISTRY ABOUT REDOX REACTIONS BASED ON MULTIMEDIA CASE STUDIES AT SMA N 1 COMAL, under the guidance of Arief Soma Darmawan, ST, M.Kom, and Tri Pudji Wahjuningsih, SE, M.Si

### ABSTRACT

*In studying redox reactions, one must really understand in order to be able to balance these reactions correctly. The media used in the package book is still lacking due to limited material. This can be seen from the questionnaire which concluded that as many as 66% of students found it difficult to understand redox reaction material in textbooks. So, "Media learning chemistry about redox reactions based on multimedia case studies at SMA 1 Comal" was built to make it easier for students to learn redox reactions. The system development method uses MDLC (Multimedia Development Life Cycle) according to (Sutopo 2012) which consists of 6 stages, namely the concept stage (concept), design (design), collecting material (material collection), assembly (manufacture), testing (testing), and distribution (distribution). In this learning media, system development tools are used using navigation structures, flowcharts, and LKT (Display Worksheets). The built media can display animations that explain reactions and there is dubbing sound that helps clarify the material. This learning media has been tested using the GUI (Graphic User Interface) and UAT (User Acceptance Test) testing methods which conclude that the media is in accordance with the user's needs. Through a series of stages of system development and testing, "Media learning chemistry about redox reactions based on multimedia case studies at SMA 1 Comal" has been produced which can be used as a medium to assist students in studying redox reactions independently.*

**Keywords: Chemistry learning media, redox reactions, Multimedia**