

**ANALYSING OF STUDENTS' MISCONCEPTIONS IN LEARNING ACID
BASE TOPIC BY COGNITIVE APPROACH AT SENIOR HIGH
SCHOOLS IN MEDAN**

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ABSTRACT

This research was conducted to analyzed students' misconceptions in learning acid base topic. Acid Base Misconception Test (ABMT) was developed to investigate the students' misconception in learning acid-base topic which is in the form of two tier diagnostic test with 15 items, there are tier of each item consisted of content statement of two choices (true and false), and there are questions contain a convinced in the last of the choices. The categorized of misconception are scientifically correct, partially correct, specific misconception and not response. Students' misconception frequency which identified are students' misconception in acid base concept (28.71%), acid base indicators (25.71%), acid base indicators (29.44), degree of acidity pH and pOH (31.99%), kinds of reaction in solution (29.97%). The percentage of students' misconception in learning acid-base topic in Senior High School in Medan is 29.61%. The essential concept study recently also revealed to main students' difficulties in understanding the context in acid base chemistry, problem in differentiate of each concept, problems calculation with the mathematical formula, and problems with the reaction in acid base.