

REVIEWER'S REPORT

Manuscript No.: IJAR- 58214

Title: "EVALUATION OF THE ETCHING PATTERNS AFTER THREE DIFFERENT ETCHING TECHNIQUES ON BUCCAL ENAMEL" - AN IN-VITRO STUDY.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality	Excellent			
Clarity		Good		
Significance	Excellent			

Reviewer's ID: Dr.Sumathi

Detailed Reviewer's Report

1. Evaluation of dental etching patterns determines how effectively acid etchants prepare enamel for orthodontic brackets . Using a Scanning Electron Microscope (SEM), researchers classify enamel surfaces into specific categories—such as Type I (prism core dissolution) and Type II (prism periphery dissolution) —to measure bond strength and micro-porosity.
2. An *in vitro* study is an experiment conducted in a controlled, artificial environment outside of a living organism, such as in a test tube, flask, or Petri dish. Derived from the Latin for "in glass," these tests utilize isolated cells, tissues, or molecules rather than whole living subjects.
3. When dental resin is bonded to the buccal surface of a tooth, conditioning with 37% phosphoric acid creates microscopic irregularities. The resulting micro-architecture is generally classified into five patterns based on the dissolution of enamel prisms (rods) and their surrounding interprismatic spaces.
4. Buccal enamel typically exhibits a mix of Type 1 and Type 2 etching patterns when treated with phosphoric acid, alongside a larger area of

REVIEWER'S REPORT

Type C and Type D etches (etched surfaces where prisms are less evident or unetched zones).

5. Buccal enamel is the hard, protective outer layer on the cheek-facing surfaces of your teeth. As the hardest substance in the human body, it shields sensitive inner layers (dentin and pulp) from bacteria and temperature extremes, though it is vulnerable to acid erosion and physical wear.
6. Etching is an intaglio printmaking technique where corrosive chemicals or acids are used to incise lines or marks into a metal plate . An acid-resistant ground (resist) is applied to the plate, the image is scratched through to expose the metal, and the plate is submerged in an acid bath.
7. Dental air abrasion is a minimally invasive technology that works like a micro-sandblaster. It uses compressed air to propel a fine stream of abrasive particles—such as aluminum oxide or silica—to gently spray away decay, repair minor chips, and prep tooth surfaces for fillings or sealants.
8. Sandblasting (also known as abrasive blasting) is the process of forcibly propelling abrasive media at a surface using compressed air or water . It is primarily used to remove rust, paint, and scale, or to roughen, smooth, and clean materials prior to painting or coating.
9. Key words must be given more words.
10. Abstract is excellent
11. In result part tables and pictures are good.
12. Discussion part information must be needed more with references.
13. References should be with alphabetical order.
14. Summary points also be added.
15. After those changes good to publish in your journal.