



BioMed Research International

Special Issue on
**Orthodontics: Bracket Materials, Adhesives Systems,
and Their Bond Strength**

CALL FOR PAPERS

Orthodontics is the study and treatment of malocclusions, which may be a result of tooth irregularity or disproportionate jaw relationships. Fixed orthodontic therapy allows treatment of dental improper bites and crowding teeth. Orthodontic treatment moves patient's teeth usually by means of brackets and wires.

In fact during orthodontic treatment, bonding between the bracket base and the tooth surface must be strong enough to withstand static and dynamic stresses. Failure of orthodontic brackets could be due to static force by the orthodontic wire and dynamic masticatory forces displacing the orthodontic accessory-tooth complex. Inappropriate bonding technique, low retention of the bracket base, and surface contamination may decrease the bonding.

Bracket failure is therefore a common problem in clinical orthodontics that is disturbing for the patients and frustrating for the practitioners and causing additional costs for the patient and societies.

International literature is deeply interested in investigating different factors that influence bond strength of orthodontic brackets. New technologies, materials, and bonding techniques need to be extensively tested for bonding brackets to tooth. New studies could help both clinicians to manage new techniques and researchers to increase knowledge about materials behaviour.

On the basis of these considerations, this journal is preparing a special issue focused on bracket materials, adhesives systems, and their bond strength to the surface of tooth.

We invite investigators and researchers to contribute with original research articles including *in vitro* studies and clinical trials that will stimulate the continuing efforts to understand the background of the bonding mechanism, interactions, and the development of strategies to improve bracket materials, adhesive systems, and bond strength.

Potential topics include, but are not limited to:

- ▶ Shear bond strength of various adhesive systems
- ▶ Bonding techniques
- ▶ Enamel contaminants
- ▶ Different orthodontic brackets
- ▶ Bracket base designs
- ▶ Bracket materials
- ▶ Other variables connected to bond strength

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/biomaterials/obma/>.

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