Special Issue

Application of Composite Biomaterials in Dentistry

Message from the Guest Editor

Composite materials are widely used as restorative biomaterials in dental clinics. For example, they have been used as a restorative to repair caries and to restore masticatory function, as well as a luting cement to adhere to the tooth structure. To determine their function, we measured the bonding ability of composites to the tooth structure. In this basic research, many abilities of a dental material, such as the shear bond strength to the tooth structure, were explained. This study also pertains to the commercial products used as composites that are suitable as tooth substrates to provide an understanding of their bonding properties. In clinical cases, it may be advisable to delay the restorative procedure when a composite material is used either as a luting cement, restorative material, or core build-up material because of improved bonding to the tooth. It is also believed that the bonding ability is an important mechanical property for composite materials to be considered for use as an oral biomaterial.

- biomaterial
- dental composite
- application in dentistry
- microscopic analysis
- gap formation
- mechanical property

Guest Editor

Dr. Masao Irie

Department of Biomaterials, Graduate School of Medicine, Dentistry and Pharmaceutical Science, Okayama University, Okayama 700-8525, Japan

Deadline for manuscript submissions

closed (15 November 2023)



Journal of Composites Science

an Open Access Journal by MDPI

Impact Factor 3.7 CiteScore 5.8



mdpi.com/si/172519

Journal of Composites Science Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 jcs@mdpi.com

mdpi.com/journal/

jcs





Journal of Composites Science

an Open Access Journal by MDPI

Impact Factor 3.7 CiteScore 5.8





Message from the Editor-in-Chief

Editor-in-Chief

Dr. Francesco Tornabene Department of Innovation Engineering, University of Salento, 73100 Lecce, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Materials Science, Composites) / CiteScore - Q1 (Engineering (miscellaneous))

