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Future Trends of Micro and Nanocomposites in Dentistry

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Deadline for manuscript submissions:

closed (31 January 2022)

Message from the Guest Editors

Resin composites emerged as the undisputed choice for direct dental restorations. Research on these materials has expanded substantially, and the topic now covers specific areas such as *antimicrobial* resin composites, *bioactive* materials, and *self-healing* formulations. A plethora of techniques is used in dental biomaterials, including spectroscopic techniques, such as FTIR, AFM, XPS, DSC and coupled with imaging techniques such as micro-CT, SEM, TEM, and analytical techniques, such as HPLC and gas chromatography. All of these are supported by a range of mechanical properties emphasizing the fatigue of materials and adopting a forensic approach with techniques such as fractography.

We aim to gather a selection of papers covering all aspects of dental micro- and nanocomposite materials. Key areas will be nanoparticles, synthesis and incorporation in novel formulation of resin composites. Additionally, the issue will include antibacterial composites, emphasizing the biological aspect of either matrix or nanoparticles. This also applies to CAD/CAM composites.

More speculative areas that have attracted attention recently, nanocoatings and biomineralization are also welcome.





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Message from the Editor-in-Chief

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