

# Annual Conference on Bioscience

September 12-13, 2016 Berlin, Germany

## Surface treatment of PMMA with argon plasma-jet: A pilot study

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This study aimed to evaluate the surface changes and wettability of PMMA as a prosthetic material after different durations of argon plasma-jet surface treatment. Four Poly Methyl Methacrylate (PMMA) discs were machined and smoothed with silicon polishing discs. The surface changes were evaluated in a control group and in groups with different plasma-jet exposure application times [30-60-120 seconds (s)]. The average contact angle (CA) measurements and surface changes were recorded via a tensiometer and scanning electron microscope (SEM) respectively. According to the results, the argon plasma-jet surface treatment markedly affects the wettability properties. With an increase in the application time, a remarkable reduction in CA and surface changes were observed. Within the limitation of this study it can be concluded that the argon plasma-jet could enhance the wetting performance and adhesive capability of PMMA.

### Biography

Emre Seker has completed his undergraduate education and PhD from Ankara University and Near East University respectively. He is as a Lecturer and Clinical Specialist at Eskisehir Osmangazi University, Faculty of Dentistry, Department of Prosthodontics as an Assistant Professor. He has published more than 30 papers and presentations and continues to study on surface treatment techniques of dental materials, CAD/CAM dentistry and plasma technology.

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