

Abstract Submitted
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An atmospheric pressure RF Helium plasma source for polymer surface modification¹ SHUJUN YANG, Alabama A&M University, JIANSHENG TANG, Hunan First Normal College — An atmospheric pressure plasma was generated by a RF capacitive discharge using either a gas mixture of helium and oxygen, or a mixture of helium and perfluorohexane (PFH). The modification of polyethyleneterephthalate (PET) surfaces by this plasma source was investigated. PET strips were exposed to plasma for different durations at the exit of the plasma source. Water contact angle measurements indicated that hydrophilic or hydrophobic PET surfaces were formed depending on the gas composition used in the plasma. The changes in the water contact angles on the modified PET surfaces were monitored as a function of time.

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