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Cysteine as a Biological Probe for Comparing Plasma Sources¹ JAN-WILM LACKMANN, Biomedical Applications of Plasma Tech., Ruhr Univ Bochum, JUDITH GOLDA, Experimental Physics II, Ruhr Univ Bochum, FRIEDERIKE KOGELHEIDE, Biomedical Applications of Plasma Tech., Ruhr Univ Bochum, JULIAN HELD, VOLKER SCHULZ-VON-DER-GATHEN, Experimental Physics II, Ruhr Univ Bochum, KATHARINA STAPELMANN, Biomedical Applications of Plasma Tech., Ruhr Univ Bochum — A large variety of plasma sources are available in the plasma medicine community. While enabling to choose the most promising source for a certain biomedical application, comparison of the different sources with a focus on their effect on biological targets is rather challenging. To allow for better comparison of various sources, the recent European COST action MP1101 was used to design the COST reference microplasma jet². Cysteine is a promising candidate investigate the impact of plasma from various sources on a standardized biological molecule, which is especially relevant for the investigations on a molecular level after plasma treatment. The simple structure of cysteine allows for a more in-depth analysis of each chemical group after plasma treatment and enables a comparison between different plasma sources and treatment parameters on each chemical group. The model itself has already been successfully established using a dielectric barrier discharge³. Here, additional plasma sources are compared by the means of their impact on cysteine samples, showing e.g. the influence of feed-gas variations by adding oxygen or nitrogen admixture

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²J. Golda *et al.*, **J. Phys. D** 49, 084003

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