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Capillary discharge based plasma source at UCLA

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At UCLA, a plasma source using capillary discharge has been developed and studied for its potential use in plasma wakefield experiments at MITHRA and AWA facilities. This compact source, measuring 8 cm in length, can generate plasmas with a wide range of densities, making it suitable for various plasma wakefield acceleration (PWFA) experiments. With a 4-mm aperture, it can accommodate high-aspect ratio beams. This paper discusses the design and assessment of the capillary discharge plasma source, along with the use of an interferometric diagnostic system to measure plasma density.

Working group

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