

High-resolution spectroscopic and electrical diagnostics of barrier discharges

October 17th, 2018 at 10:30am - NB 5 / 158

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Streamer mechanism is one of the main ionisation mechanisms in highpressure plasma jets, pulsing coronas or barrier discharges. In atmospheric air, it is an ultra-fast process which produces a light emission or current pulses with duration of only several units of nanoseconds. In such challenging case, an enhanced diagnostic method has to be applied.

In this contribution, high-resolution sensitive spectroscopic and electrical methods will be presented which enable the determination of basic plasma parameters in mentioned fast ionising events. The presented methods will be applied to barrier discharges in contact with condensed matter - solid and liquid - and their use for further applied research will be critically discussed.

It will take place on Wednesday, October 17th, 10:30 – 11:30, in our seminar room (NB 5/ 158, Experimentalphysik 2). Other interested SFB members, students, and external scientists are welcome to join as well.

Please register by email to Alicia Gonzalez (sfb1316@rub.de).