



Nanosecond Discharge Processes in Liquid Water

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Message from the Guest Editors

Dear Colleagues,

This Special Issue on “Nanosecond Discharge Processes in Liquid Water” aims to highlight recent advances both in experiments and computational modeling addressing key issues of ultrafast plasma formation in polar liquids, namely in water.

Topics include, but are not limited to:

- Signatures of ultrafast processes associated with plasma formation in liquid water;
- Novel diagnostic approaches performed at a (sub)ns resolution in time and sub(μm) resolution in space;
- Experimental fingerprints differentiating the direct breakdown in liquid from bubble-assisted breakdown (e.g., radiative and acoustic signatures, energy efficiency of discharge products);
- Dynamics of a dielectric liquid in pulsed electric fields;
- Nucleation theory and cavitation in pulsed electric fields;
- Sources of primary electrons and mechanisms of electron multiplication;
- Model weaving.

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Guest Editors



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Special Issue



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Message from the Editor-in-Chief

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