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The chemical reactions in electrosprays of water do not always correspond to those at the pristine airwater interface

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Abstract

calculations and molecular dynamics simulations. We found that the oligomerization of isoprene in aqueous electrosprays involved minimally hydrated and highly reactive hydronium ions. Those conditions, however, are non-existent at pristine air-water interfaces and oil-water emulsions under normal temperature and pressure. Thus, electrosprays should be complemented with surface-specific platforms and theoretical methods to reliably investigate chemistries at the pristine air-water interface.

Keywords: electrospraying, water, air-water interface, hydronium ion, oil-water emulsions, reaction conditions

Full text

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