



The Link between atmospheric Ionization and the formation of cloud condensation nuclei

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Significant empirical evidence links solar activity and cosmic ray flux variations to the terrestrial climate, and that this link arises from the effect that atmospheric ionization has on the formation of cloud condensation nuclei. We present recent theoretical and experimental results demonstrating how the atmospheric ionization plays a role in increasing the survivability of small aerosols as they grow to become the cloud condensation nuclei necessary for clouds formation. Namely, higher ionization rates lead to a higher density of cloud condensation nuclei. This implies that the solar climate link is not only supported by empirical evidence, but a full theory is now available to explain it.