



To What Extent Smoke Suppress Rain Over Sea?

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The impacts of aerosols on clouds over land have been shown to completely suppress warm rain for sufficiently heavy smoke. Such smoke over ocean does induce smaller drops, but radar observations show that some rain still occurs, although to a much smaller extent than in the smoke-free air. It has already suggested previously that the sea salt generated giant CCN induce the rain even from heavily polluted clouds, but the extent of that effect has not been established yet. Here we try to quantify this effect by using a combination of satellite microphysical measurements with surface and space borne radars.