

Abstract Submitted  
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**Cosmic-ray strangelets in the Earth's atmosphere** BENJAMIN MONREAL, MIT — If strange quark matter is stable in small lumps, we expect to find such lumps, called “strangelets”, on Earth due to a steady flux in cosmic rays. Following recent astrophysical models, we predict the strangelet flux at the top of the atmosphere, and trace the strangelets' behavior in atmospheric chemistry and circulation. We show that several strangelet species may have large abundances in the atmosphere; that they should respond favorably to laboratory-scale preconcentration techniques; and that they present promising targets for mass spectroscopy experiments.

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