

# Cleaning with electricity

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Scientists have found a new way to clean solar cells using electricity. Covering the solar cells with a transparent electrode and applying electricity causes the dust to become charged, which lifts the particles off the surface. This effect is unexpected because dust is mostly silica, which is an insulator. Deserts can get humid at night time and at humidity above 30% the particles conduct. This occurs because the sand becomes surrounded by conductive water molecules.



Scrub or brush? Keeping solar cells working efficiently

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1. Explain the challenges of washing solar cells in a desert.
2. Explain why silica (silicon dioxide) is normally an electrical insulator.
3. Suggest one potential problem with the new method of cleaning.