This false-colored view from NASA's Spitzer Space Telescope's infrared array camera shows galaxy Messier 82 as a diffuse bar of blue light. Fanning out from its top and bottom are huge red clouds of dust.

M82 is a peculiar, irregular-shaped galaxy undergoing intense star formation. The visible-light picture of M82 (right) shows a bar of light with dark dust lanes against a dark patch of space. Longer exposures of the galaxy (not pictured here) have revealed cone-shaped clouds of hot gas above and below the galaxy's plane. It took Spitzer's sensitive infrared detectors to show that the galaxy is also surrounded by a huge halo of smoky dust believed to contain organic molecules called polycyclic aromatic hydrocarbons.

These hydrocarbon molecules are also found on Earth in tailpipes, barbecue pits and other places where combustion has occurred. In galaxies, this material is created by stars, whose winds and radiation blow the material out into space. These hazy clouds are some of the biggest ever seen around a galaxy. They stretch 20,000 light-years away from the galactic plane in both directions, far beyond where stars are found.