

Chemistry in Space

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PROBLEM

We don't really know how stars and galaxies form. But the study of atoms and molecules is an important tool to aid our understanding.

SOLUTION

By using telescopes in Australia, I study the chemistry of stars within our Galaxy in a new way.

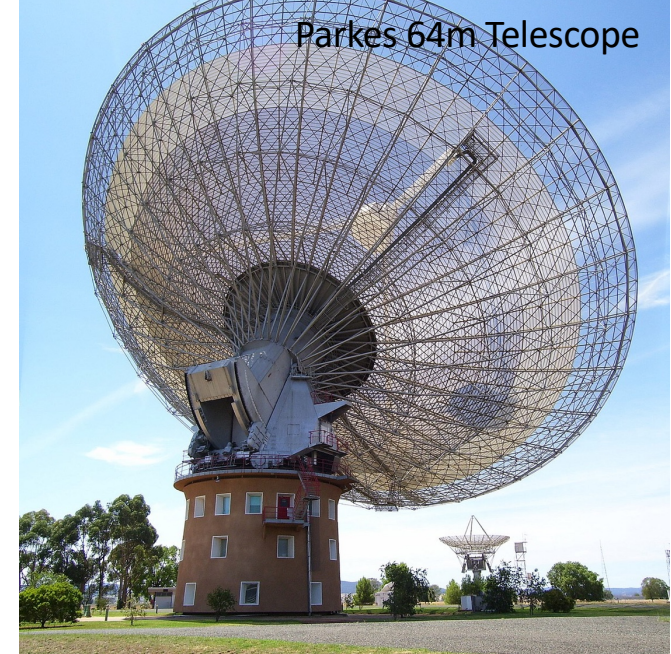
Chemistry + Physics = Win!
Lab Science + Astronomy = Win!

Pictured: ASKAP Telescope

Murchison Widefield Array



Parkes 64m Telescope

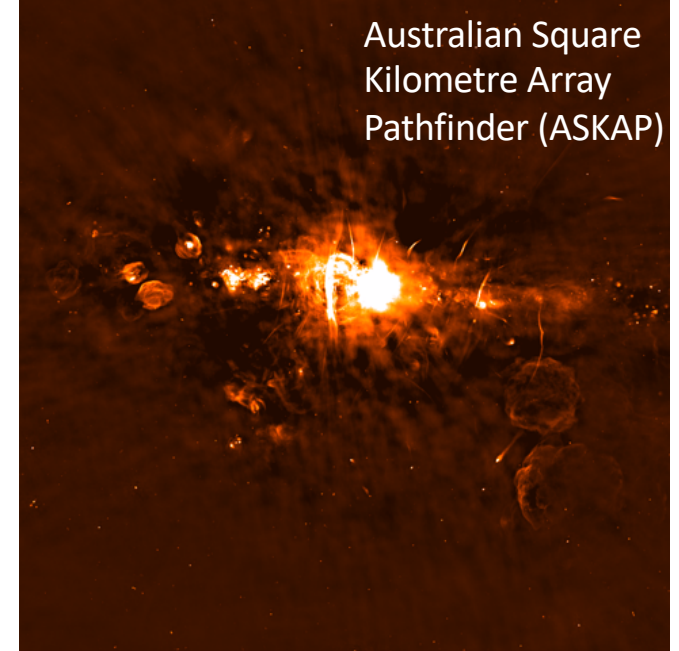
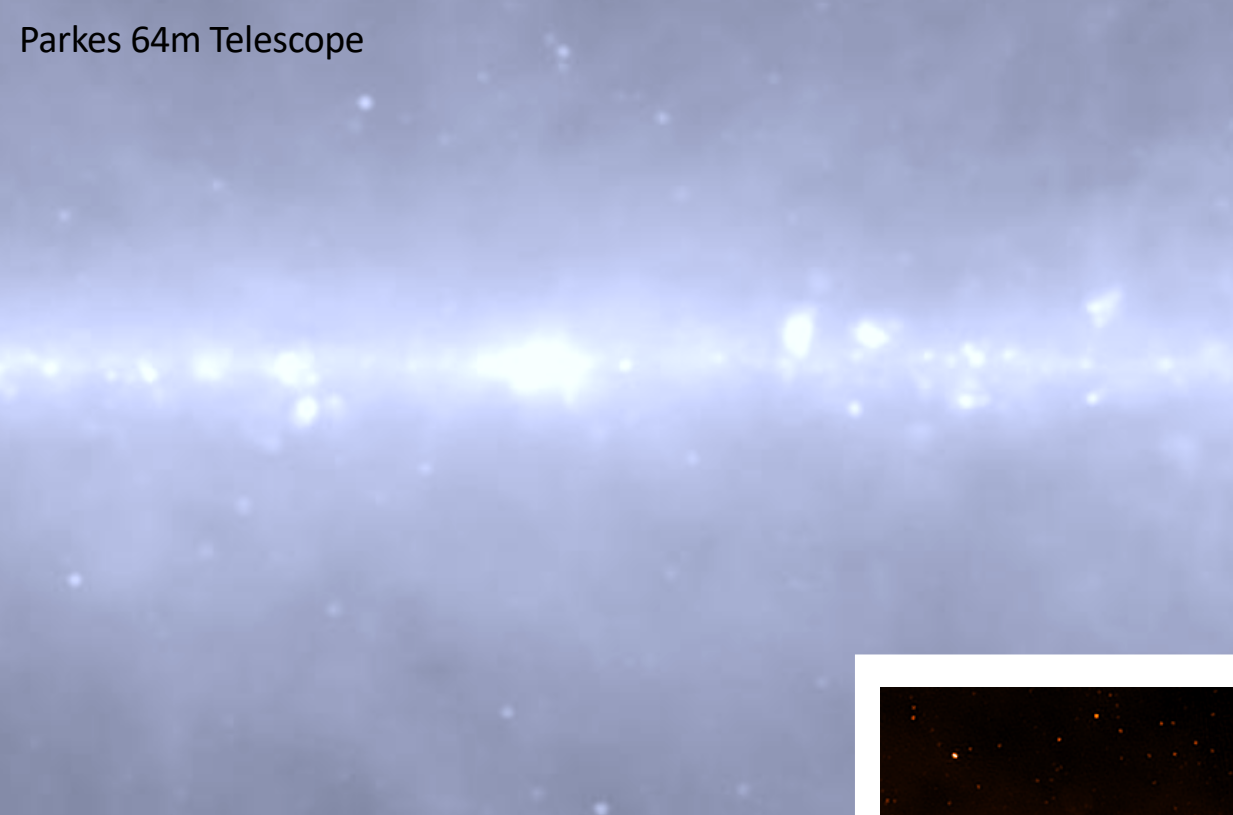


Australian Square
Kilometre Array
Pathfinder (ASKAP)



By studying molecules with these three telescopes we can:

1. Study star formation; stars >8 times the size our own sun are main source of chemicals.
2. Look for indication of life:
 - Search for complex molecules.
 - Study why we see more organic than inorganic molecules.
3. Ask “are magnetic fields important for stars to form”?



Our view of the sky changes depending on the telescope we use. So by using them together we can get a better understanding of our Universe.

Radio signals are important as they are not blocked by the Earth's atmosphere and we can detect molecules, in gas, as their spin changes speeds.

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