

Easing concerns about pollution from manufacture of solar cells

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In a finding that could help ease concerns about the potential environmental impact of manufacturing solar cells, scientists report that the manufacture of solar cells produces far fewer air pollutants than conventional fossil fuel technologies. Their report, the first comprehensive study on the pollutants produced during the manufacture of solar cells, is scheduled for the March 15 issue of the ACS' *Environmental Science & Technology*.

Solar energy has been touted for years as a safer, cleaner alternative to burning fossil fuels to meet rising energy demands.

However, environmentalists and others are increasingly concerned about the potential negative impact of solar cell (photovoltaic) technology. Manufacture of photovoltaic cells requires potentially toxic metals such as lead, mercury and cadmium and produces carbon dioxide, which contributes to global warming.

In the new study, Vasilis M. Fthenakis and colleagues gathered air pollution emissions data from 13 solar cell manufacturers in Europe and the United States from 2004-2006. The solar cells include four major commercial types: multicrystalline silicon, monocrystalline silicon, ribbon silicon, and thin-film cadmium telluride.

The researchers found that producing electricity from solar cells reduces air pollutants by about 90 percent in comparison to using conventional fossil fuel technologies.

Source: ACS

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