

Helium scarcity blamed on waste

At first thought it may seem strange that we should be facing a scarcity of helium, the second most abundant element in the universe and widespread on Earth. But according to a recent story in *PHYSICS TODAY* (June 2007, page 31), serious shortages are coming, with the world supply dwindling and the price about to soar. Unfortunately, we have brought the coming shortage on our-

selves by our carelessness and inattention to conservation.

Through disregard and a lack of foresight, enormous amounts of helium have been unnecessarily lost. Closely associated with petroleum deposits, helium is present in the mixture of gases that accompany petroleum production. In many cases producers have been interested in producing only oil from the oil fields. Because the natural gas accompanying crude oil production often could not be transported economically to markets, it was simply released to the atmosphere and wasted,

along with the helium present in the mixture. Unfortunately, those practices persist in some petroleum-producing areas. Even now, the estimates indicate that in the range of 150–170 billion meters of natural gas are routinely flared or vented annually.^{1,2}

The natural gas that is regularly released into the atmosphere, either directly or after burning, during the production of oil and gas not only amounts to wasted resources but also contributes to the destructive effects of additional greenhouse gas emissions. Flaring and venting of natural gas in oil wells has been a significant source of greenhouse gas emissions and thus may contribute to climate change.^{3,4} The shameful and unnecessary waste of helium at the sources continues to be accompanied by equally unnecessary contributions to greenhouse gases.

We must take a more serious and committed attitude toward our natural resources; curtailing the unnecessary waste of both methane and helium in flaring and venting would be an important step to take.

References

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3. G. Marland, T. A. Boden, R. J. Andres, "Global, Regional, and National Fossil Fuel CO₂ Emissions," in *Online Trends: A Compendium of Data on Global Change*, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Department of Energy, Oak Ridge, TN (2007), available at http://cdiac.ornl.gov/trends/emis/meth_reg.htm.
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Correction

November 2007, page 41—The scale bar in figure 1 should be labeled 100 nm. ■

High Voltage Power Supplies

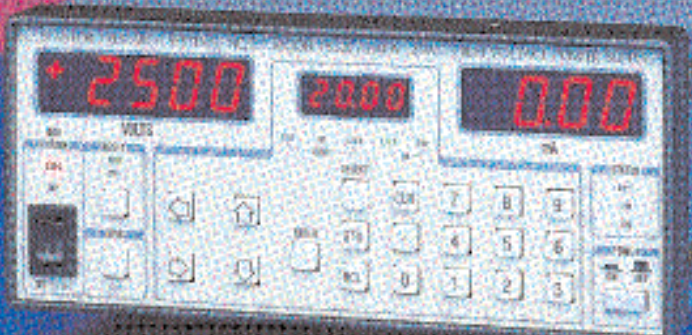
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