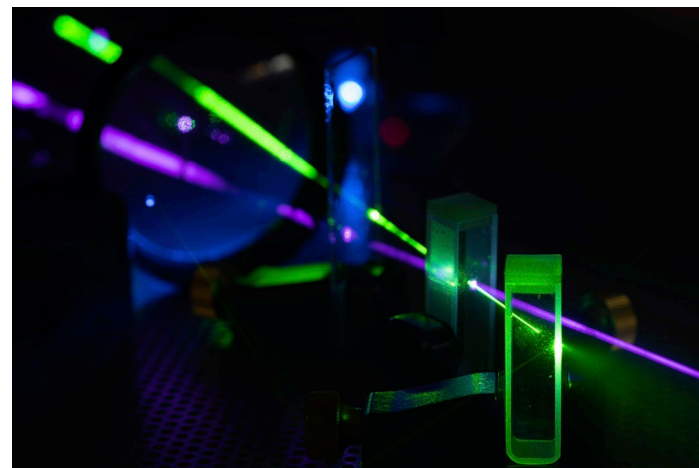


# Neon – a conflict material?

Read the full article at [rsc.li/3Mh2BBb](https://rsc.li/3Mh2BBb)

The war in Ukraine is creating shortages of high-purity neon gas. Until the war, Ukraine produced around half of the global supply. But the war has stopped production, so is neon becoming a new kind of conflict material?

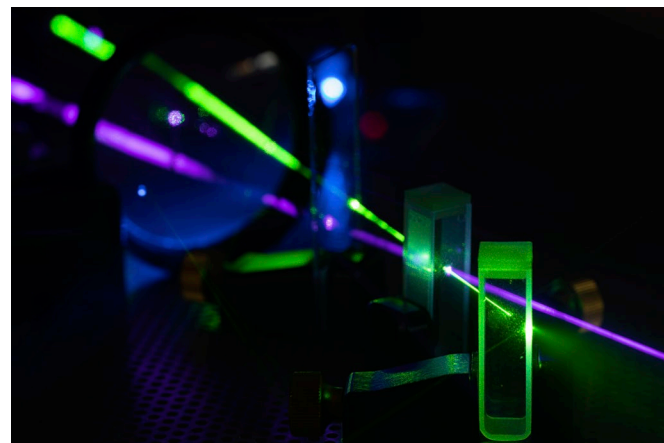
Neon is an important component in the lasers that etch semiconductors. Like krypton and xenon, it is a by-product of steel manufacturing. Steel producers separate air to control levels of oxygen and nitrogen delivered to the blast furnace. This involves the fractional distillation of liquid air. Because neon is present in such low concentrations it can only be economically recovered from very large steel plants.



What links lasers, semiconductors and steel production to Ukraine?

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1. How do the boiling points of the noble gases change going down the group?
2. Explain why noble gases are unreactive.
3. Explain how the war in Ukraine could cause shortages of semiconductors.