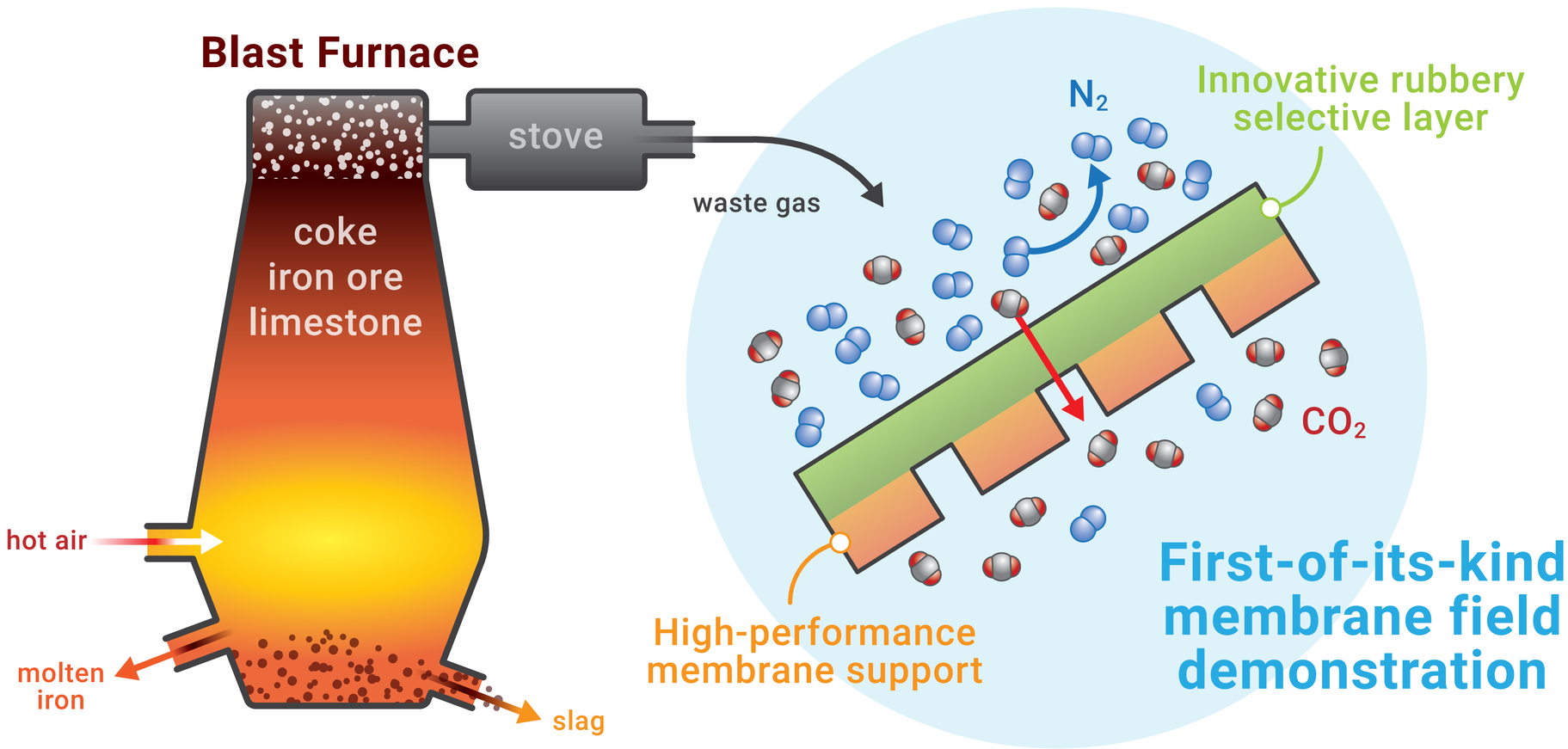
NETL Brings Superior Membrane CO_2 Capture Performance to a Steel Manufacturing Facility

The advanced polymeric membrane developed by NETL demonstrates higher permeance than any commercially available option, making it highly suitable for capturing CO_2 from power and industrial sources.



Membrane-based carbon capture process applied to steel manufacturing.

NETL is making strides to enable the widespread implementation of carbon capture technologies by developing a new polymeric membrane that can separate CO_2 with a permeance greater than 3,000 gas permeance units—at least 50% higher than commercially available options. The outcomes of this development include:

- Reduced costs for gas separations, including post-combustion CO_2 capture.
- The first testing of a membrane material for carbon capture at a steel manufacturing facility (U. S. Steel), enabling NETL to help shape low-carbon steel manufacturing of the future.
- U.S. Patent applications have been filed for the membrane material due to commercial relevance.

DOE PROGRAM

Point Source Carbon Capture

NETL PARTNERS

United States Steel Corporation

CCSI² Carbon Capture Simulation for Industry Impact

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NETL-R&D-FECM-PSC-000027