PURIFICATION OF NOBLE GASES USING ONLINE REGENERATION OF GETTER BEDS

ABSTRACT OF THE DISCLOSURE

Processes for the recovery and purification of noble gas stream contaminated with small amounts of hydrogen and/or other getter combustibles. One process involves dividing the noble gas stream gas into a first and second noble gas streams. The first noble gas stream is sent to a second metal getter containing a bed comprised of a metal getter in an oxidized state wherein the hydrogen is combusted. Oxygen is added to the second noble gas stream and the stream is passed through a catalytic unit wherein the hydrogen is combusted and then through a first metal getter bed operating in parallel with a second bed wherein the metal getter is converted to its oxide form. When breakthrough is detected in either bed, the flows of the first and second noble gas streams are rerouted to the other beds, respectively.

Figure 1