



Oxygen concentration by adsorption or other means

(10 GB 40n6 3K3G)



### Abstract

**A medical product design company in the South-East of England is looking for technologies based on oxygen or nitrogen adsorption to integrate into a portable medical product designed to deliver oxygen to patients. The end product will need to be light, quiet, energy efficient and cost effective. However other methods of selectively creating oxygen or removing nitrogen and argon would also be of interest. The company is seeking a partner to co-develop this product.**

Valid until: 25/12/2011

For further information (including IPR status)

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### Description

Portable oxygen concentrators based on nitrogen adsorption and a cyclical process known as pressure swing adsorption are standard for patients with respiratory conditions such as COPD (chronic obstructive pulmonary disease). However, they are bulky, relatively noisy, heavy, power hungry and deliver (at most) 95% oxygen.

The company is interested in research or technology which promises to improve this performance. It may be based around oxygen or nitrogen/argon adsorption, or some other means of creating or concentrating oxygen.

They wish to deliver >95% oxygen at average rates of 0.5-3 LPM (litres per minute), at near ambient pressures and temperatures.

Our primary objective is to reduce the size of such products by reducing the bulk of such systems or reducing the requirements for battery packs.

### Technical Specifications / Specific technical requirements of the request

Technology that absorbs oxygen or nitrogen/argon, or by some other means of creating or concentrating oxygen deliver of >95% oxygen at average rates of 0.5-3 LPM (litres per minute), at near ambient pressures and temperatures.